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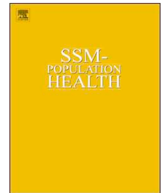

Article

Theorising social class and its application to the study of health inequalities

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A B S T R A C T

The literature on health inequalities often uses measures of socio-economic position pragmatically to rank the population to describe inequalities in health rather than to understand social and economic relationships between groups. Theoretical considerations about the meaning of different measures, the social processes they describe, and how these might link to health are often limited. This paper builds upon Wright's synthesis of social class theories to propose a new integrated model for understanding social class as applied to health. This model incorporates several social class mechanisms: social background and early years' circumstances; Bourdieu's habitus and distinction; social closure and opportunity hoarding; Marxist conflict over production (domination and exploitation); and Weberian conflict over distribution. The importance of discrimination and prejudice in determining the opportunities for groups is also explicitly recognised, as is the relationship with health behaviours. In linking the different social class processes we have created an integrated theory of how and why social class causes inequalities in health. Further work is required to test this approach, to promote greater understanding of researchers of the social processes underlying different measures, and to understand how better and more comprehensive data on the range of social class processes these might be collected in the future.

Background

There is an extensive literature considering the association between a wide range of measures of socio-economic position and subsequent health outcomes (Cook, 1990; Gallo et al., 2012; Galobardes, Shaw, Lawlor, Lynch, & Smith, 2006a; Galobardes, Shaw, Lawlor, Lynch, & Smith, 2006b; Mackenbach et al., 2016; Muntaner, Eaton, Miech, & O'Campo, 2004; Muntaner et al., 2010; Pongiglione, De Stavola, & Ploubidis, 2015). Socio-economic position has been conceptualised and measured in different ways internationally. In the UK, social class (usually based on occupation) and area deprivation (ranking resident populations of small geographical areas by the prevalence of a range of characteristics) have commonly been used; in Europe, the use of educational attainment has been more widespread; in the USA, income measures are more common; whilst in some other contexts caste has been used (Smith, Hill, & Bambra, 2016). However, there is a much smaller literature that uses such measures as part of an explicit theory to understand the social processes underlying health inequalities, and even fewer that examine the utility of different social theories and test their ability to explain health outcomes (Bartley, 1999; Bartley, Sacker, Firth, & Fitzpatrick, 1999; Krieger, 2011; Muntaner et al., 2004; Muntaner, et al., 2010; Solar & Irwin, 2007). It is more common that measures of socio-economic position are simply used to compare between groups (for nominal categories) or across the population (for ordinal measures) rather than to understand the underlying social processes and relationships which lead to the inequalities they attempt to describe. Inequalities in health ranked by measures of socioeconomic position are often seen simply as something to be 'explained away' by the 'bad behaviours' of the working class, rather than appreciating the potential for differential vulnerability (Diderichsen, Hallqvist, & Whitehead, 2018). Furthermore, such an approach can ignore, downplay, misunderstand or reject an understanding of inequalities as a product of social processes and social and economic relationships between social groups (Gruer, Hart, Gordon, & Watt, 2009). This risks misinterpretation of the causal processes which underlie health inequalities in different contexts and time periods, and thus interventions and policies to reduce health inequalities may be misdirected, ineffective or even counterproductive (Geyer, Hemström, Peter, & Vågerö, 2006).

It is also important to incorporate the interrelationship between social class and other social processes such as discrimination and stigma which differentially impact on groups by gender, ethnicity, sexuality, disability, age and religion; as has been described by Krieger, Rowley, Herman, Avery, and Phillips (1993) and in the intersectionality

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literature (Bauer, 2014; Collins, 2015; Hankivsky, 2012; Viruell-Fuentes, Miranda, & Abdulrahim, 2012). Again, simply categorising the population by such measures (e.g. skin colour), without recognition of the historical and contemporary social processes that have operated differentially for social groups carries the same risks as for measures of socioeconomic position.

This paper briefly reviews the commonly used measures of socio-economic position and how these relate to underlying social class mechanisms before proposing an adaptation of Wright's integrated social class theory in order to explain inequalities in health.

The uses and limitations of occupational social class

Different social class theories relating to occupational classification systems are theoretically more attuned to understanding some social processes than others (Chan & Goldthorpe, 2007; Connelly, Gayle, & Lambert, 2016; Muntaner, William, & Chamberlain, 2000; Muntaner et al., 2010). For example, the Erikson-Goldthorpe-Portocarero (EGP) schema (which was used to develop a range of classifications including the National Statistics Socio-Economic Classification (NS-SEC)) groups people according to shared market positions (including career prospects) and employment conditions (in relation to autonomy and authority). In contrast, the Cambridge Social Interaction and Stratification (or CAMSIS) scale seeks to measure "general social advantage" as reflected in the patterns of social mixing and social distance that are associated with different occupations; whilst the Standard International Occupational Prestige Scale (SIOPS) scale is based on the prestige given to different occupational groupings (Connelly, et al., 2016). Other occupational classification systems have a clearer focus on the Marxist mechanisms of class domination and exploitation (Muntaner et al., 2010; Muntaner, Ng, Chung, & Prins, 2015; Wohlfarth, 1997).

For those measures of socio-economic position reliant on occupation for derivation of social class, there are other important considerations that have limited how they have been operationalised. The experience of work for men and women has and remains different, with very stark historical differences (and secular trends) in the extent to which women have participated in a commodified labour market. This has often led to women who were not in paid work being allocated the occupational position of their (almost entirely male – reflecting historical heteronormativity) partners (Krieger, 1991; Bartley, 1999). Sometimes this has been modified further to create a 'household' occupational social class wherein the member of the occupational group with the highest status or most advantaged employment conditions amongst the adults in the household is allocated to all household members (Sacker, Firth, Fitzpatrick, Lynch, & Bartley, 2000). For retired individuals (medically retired or age-related retirement) and those who are unemployed, it has been convention to allocate social position according to the last occupation of the individual. This is often a pragmatic approach, but it may result in marked differences in the allocated social position for individuals compared to one which takes the occupation with the highest status or most advantaged employment conditions occupied over the lifecourse, or the one in which an individual has been a member for the longest time. This reflects the reality that different social class processes operate over the lifecourse with varying impacts. There is a similar issue for students (and indeed children) who have not yet entered the labour market, or who have entered the labour market in a position that is likely to change markedly as their career develops, and for economic migrants who often take lower ranked occupations in the country they arrive in than the occupations which they held previously (Smith, Chaturvedi, Harding, Nazroo, & Williams, 2000). The allocation of farmers and fishermen (sic) can differ across contexts given that in some countries these groups are largely self-employed and engaged in subsistence work, whereas elsewhere labouring for others is more common (thereby representing much less autonomy), and in some countries these sectors are dominated by large scale business (with farm labourers classified as manual labourers).

A similar difficulty exists when attempting to understand population trends in occupational groupings as the proportions within each group and, importantly, the meaning of inclusion in each group, has changed markedly over time (Katikireddi, Whitley, Lewsey, Gray, & Leyland, 2017). For example, the increase in the proportion of jobs classified as 'managerial' has increased over time at least partly due to changes in how that term has been understood. It is also worth noting that the degree of aggregation within groups (i.e. how much heterogeneity there is within a single group) is also important in understanding the relationship to outcomes (Katikireddi et al., 2017).

Class theories have also been used in work which seeks to explain the differences in mean population health outcomes across countries, rather than inequalities in health within countries. For example, Coburn and Navarro have theorised that the power of capital relative to that of labour, acting through markets and the state (characterised as the welfare regime), determines the levels of a wide range of factors which are closely related to health outcomes (including poverty, education, access to services, etc.) (Coburn, 2004; Navarro, 2007).

Pragmatic measures of socio-economic position

As noted above, the social processes that might lead to health inequalities are also likely to be different across the lifecourse. Some studies have used different measures of socio-economic position as proxies of this. For example, parental occupational social class has been used as a marker of social position in the early years; education as a marker for early adulthood; and own/current occupation as a marker during the working years), thereby encompassing a range of different social processes (Muntaner, 2010; Poulton et al., 2002; Rahkonen, Lahelma, & Huuhka, 1997; Smith et al., 1998).

Researchers interested in health inequalities are often in the position of having to make pragmatic decisions on which markers of socio-economic position to use – often because of limited availability of such data. Indeed the most commonly used markers in Great Britain are area-based rather than individual measures, originally developed to ascertain the independent impact of ecological exposures, but now used frequently (and largely atheoretically) as the only means for ranking the population in non-survey based administrative records (Katikireddi & Valles, 2015). This includes the widely used Carstairs deprivation measure and the various indices of deprivation (Carstairs & Morris, 1989; Schofield et al., 2016). It is worth noting that the area-based measures are often derived from data on multiple aspects of socio-economic position, including measures of social class.

Developing an integrated social class theory to explain health inequalities

The terms socio-economic status, socio-economic position and social class are at times used interchangeably and without consideration of the different meanings they can carry. Following Muntaner et al., we use socio-economic position here to describe the place and experiences different groups have within social processes which stem from the relations between groups; i.e. the position within social class relations (Muntaner et al., 2004). Few datasets are available which have good measures of all the social processes relating to social class. This means that empirical differences identified in those studies that have attempted this may be a result of limitations in the measurement tools available rather than the importance of the social processes involved.

This paper develops a more explicit use of sociological theory, in particular social class theories, in studies using such measures to expose and explain health inequalities. It builds on the work of Erik Olin Wright (Wright, 2009; Wright, 2015), and illustrates a pragmatic approach for the use of data using a particularly well characterised birth cohort study (the National Child Development Study (NCDS), more commonly known as the 1958 British birth cohort study) (Power & Elliott, 2006), as preparation for future analytical work to test how different theories of how social class might lead to differential health

outcomes.

Theorising social class

Social class can be defined as:

"…social groups arising from interdependent economic relationships among people. These relationships are determined by a society's forms of property, ownership, and labour, and their connections through production, distribution, and consumption of goods, services, and information. Social class is thus premised upon people's structural location with the economy – as employers, employees, self-employed, and unemployed (in both the formal and informal sector), and as owners, or not, of capital, land, or other forms of economic investments" (Krieger, 2001).

It is a contested term which is used to represent a number of distinct social relationships and processes which are detailed further below. It is further confused by the use of a range of terms (including social class, social status, socio-economic status, socio-economic position) which are often not defined or linked explicitly to theory (Krieger, 2001; Krieger, 2011). Wright has recently synthesised many of these theories into a common model and in doing so provides clarity on the different aspects of social class theory which are most useful in explaining different social phenomena (Wright, 2015). Wright's synthesis focusses on three key class theories which are discussed in turn below, and are summarised in Box 1.

Individual attributes

Wright describes the first theory as the 'individual attributes approach', which groups people by collections of economic and cultural characteristics, and their social connections. This is the least developed aspect of Wright's work in that it represents an almost open-ended category for any factor that might be associated with class position, and with less theoretical elaboration. An example of this is the use of social class markers simply as a means of stratifying a population to look at differential health outcomes without any consideration of the social and economic relationships that exist between classes or the causal processes which lead to those differential outcomes (Gruer et al., 2009).

Wright most closely aligns this theory with Bourdieu's work on forms of capital (economic, social and cultural (Bourdieu, 1986)) and Savage's elaboration of a range of measures of these 'capitals' in 2013 as part of the 'Great British Class Survey' (Savage, 2015). Savage's resulting social classes based on how the range of capitals clustered statistically were: elite, established middle class, technical middle class, new affluent workers, traditional working class, emerging service workers and precariat. These classes are not defined by their economic or other relationships, the main distinction which Wright draws between this and the other two theories (Wright, 2015). Thus, this kind of approach, which simply categorises people into groups without exploring the social and economic relations between them, does little to advance the understanding of the social processes that underlie inequalities or their causes.

Arguably, Bourdieu understood the forms of capital he described as being relational and their use as simply individual attributes would therefore be a decontextualized approach. There is also some ambiguity in relation to the lifecourse aspects of this theory, not least in the social sorting mechanisms which occur in the early years and contribute to the intergenerational reproduction of class. These are aspects we include in our synthesis below.

Relational – Opportunity hoarding

The second theory identified by Wright is the opportunity hoarding approach, most frequently associated with Weber (Weber, 1978). The theory suggests that class differences emerge through the processes of 'social closure', where some groups are prevented from accessing particular positions. This can occur through education and 'credentialing' (e.g. limiting the availability of appropriate education, and then limiting the best paid and most interesting jobs to those who hold particular certificates of training/degrees); through ownership of capital (i.e. limiting the positions of company/housing/land ownership to those born into particular circumstances); through legal or cultural rules (e.g. colour, religious, marriage or gender bars for some jobs); or through social connections (which may be obtained through private education, family members, etc.). Any of these barriers act to deny most people access to favourable positions in the occupational structure and facilitate access to others. The processes of social differentiation can involve a variety of characteristics such as accent and cultural tastes thereby incorporating much of Bourdieu's work on habitus.

The opportunity hoarding approach is generally aligned to social classes in the following way: capitalists are defined by private property rights in the means of production; the middle class are defined by mechanisms relating to the acquisition of education and skills; and the working class are defined by exclusion from both higher education and

Box 1
Key theories relevant to social class relations.

Theory	Summary
Individual attributes	The use of social class measures to group people by their common features and then associate these groups with behaviours and outcomes without reference to the underlying social relations.
Habitus & distinction	The ways in which different social classes display cultural markers which differentiate each from one another. These are usually formed in childhood and often outlive changes in economic circumstances. The theory was first described by Bourdieu.
Discrimination	The processes by which people are treated differently simply through their membership of a social group. This can occur independently of the economic position but can often exacerbate such differences.
Intersectionality	The means through which different characteristics of groups interact and create advantages and disadvantages through their relationships that can be greater than the simple additive sum of the individual exposures. It recognises that social groups can be disadvantaged simultaneously by multiple social processes, such as misogyny, racism, homophobia, exploitation and domination, and that some social groups are more likely than others to be negatively impacted by these.
Opportunity hoarding & social closure	Most closely associated with Weber, this describes how social groups can maintain their advantageous economic position over others. This can be through the attainment of credentials (often education certificates), discrimination (e.g. colour bars) or cultural indicators (i.e. habitus and distinction) to limit entry into different economic positions.
Exploitation & domination	The processes articulated by Marx through which some social classes control the lives and activities of other classes (domination) and acquire economic benefits from the labour of others (exploitation).
Power	The ability of different social groups to control their own affairs and those of others – thereby incorporating all of the other social processes described above.
Time: lifecourse, intergenerational transmission and social mobility	The extent to which individuals over their own lifespan, and between generations of the same family, stay in the same social class.

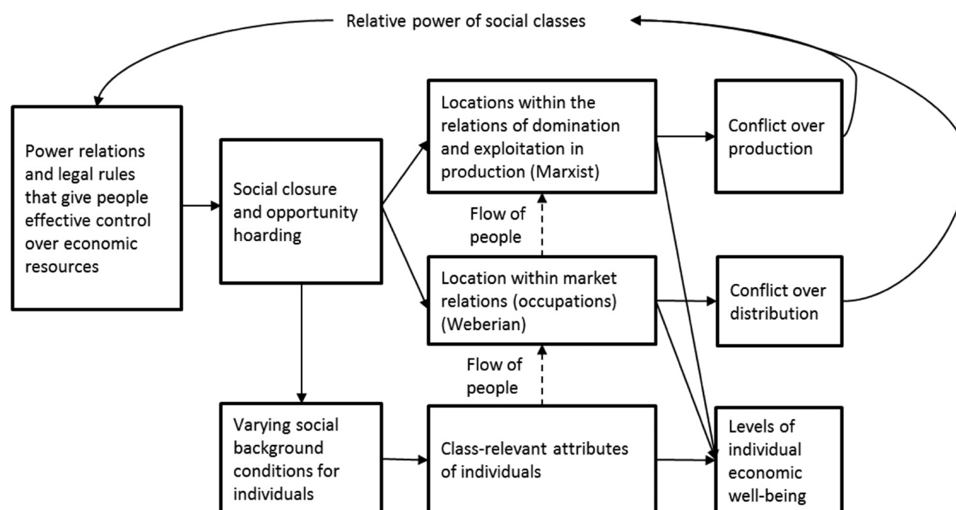

Fig. 1. A representation and adaptation of Wright's integrated theory of class relations (Wright, 2015).

capital. The Bourdieusian aspects of opportunity hoarding, particularly those relating to social differentiation, 'cultural capital' and 'social capital' are described as key mechanisms through which class differences can sustain and outlive short-term changes in income or occupation – preventing rapid changes of social class for individuals (Atkinson & Rosenlund, 2014; Veenstra, 2007).

In adopting a relational understanding of economic conditions (i.e. that some social classes can restrict access to occupations of other social classes), the opportunity hoarding approach is different to the individual attributes approach. However, there is little in this approach to social class which considers how some of the economic activities (as opposed to just the economic conditions) of some social classes are determined by others and the consequences. This is considered below.

Relational - Exploitation and domination

The third aspect of class theory described by Wright is in relation to the processes of exploitation and domination. This conceptualisation is most closely aligned with that of Marxism (or neo-Marxism) (Muntaner & Lynch, 1999; Muntaner, et al., 2002) and describes the processes through which some social classes control the lives and activities of other classes (domination); and the processes through which the capitalists (the owners of the means of production) acquire economic benefits from the labour of others (exploitation). The classic example used to distinguish opportunity hoarding from domination and exploitation is the difference between a land owner restricting access for farming (opportunity hoarding) and a land owner employing workers and extracting profit/rent from their work (domination and exploitation) (Wright, 2015). Another example of exploitation is that of private landlords who have the wealth to buy up housing and who then charge rent from people who cannot afford to buy and where there is little access to publicly owned housing. Managers within companies and organisations can often dominate the lives of workers (e.g. through the allocation of tasks and designation of working hours) but it is the owners of companies who exploit and gain the economic rents from the work of others (Muntaner, Borrell, Benach, Pasarin, & Fernandez, 2003; Wohlfarth, 1997). Domination can also occur through occupational and societal roles, such as religious leaders and police, where substantive control over the lives of others can occur, but there may be little economic advantage gained from such examples.

Exploitation and domination are differentiated from the opportunity hoarding approach because it is the only theory which describes the social relations which *control* the economic activities of the working class (rather than simply their economic conditions), including exclusion from the labour market. The key difference between social classes in this approach is therefore between those who own and control the means of production and those who are hired to use these means of production. Other sub-categories can be elaborated. For example: managers exercise powers of domination but are subordinate to capitalists and do not therefore have full powers of exploitation; and highly educated professionals and technical workers with sufficient control of particular knowledge and skills can avoid domination and reduce their exploitation.

Thus, the exploitation and domination approach to social class adopts a relational understanding of both economic conditions and economic activities in contrast to the other approaches. It also offers a powerful means of understanding the trends over time in the balance of power relations between classes and thus is a dynamic model of why particular social classes do better or worse in particular places and times relative to others. It does not, in common with the other theories synthesised by Wright, specifically address intergenerational issues or social mobility (Breen & Goldthorpe, 2001).

Synthesising the theories of social class

Although three distinct theories of social class have been articulated above, Wright argues that these theories and social processes are interlinked and co-dependent. In Wright's model, power relations and legal rules, arising from the relative power of social classes at any point in time in a given society are the starting point for understanding the class processes or mechanisms in operation. The power relations and legal rules determines the effective control each group has over economic resources, which in turn has a differential impact on the extent to which classes can access good work, education, housing, social networks, etc. (summarised as social closure and opportunity hoarding). This is then theorised to determine the social background of individuals. These individual attributes, alongside social closure and opportunity hoarding then in turn shape the economic relations between classes, both in terms of their location in the production of goods and services (including whether certain classes are in a position of domination or exploitation) and in the consumption of goods and services. These social class process themselves then influence the relative power between classes, and their cumulative exposure for each class leads to differential health and social experiences and outcomes (Fig. 1, Wright, 2015). The model explicitly includes the Marxist and Weberian theories of social class. However, Bourdieu's theories of class are not explicit within the model. They are instead incorporated within both the individual attributes pathway (according to which the attributes determine who is "naturally" selected by merit into advantaged positions) and the opportunity hoarding pathways (according to which members

of advantaged social classes use them to exclude most people from these positions). The lifecourse, and intergenerational, influences on social class are therefore present but not explicit.

How social class can be best measured in women historically, particularly given the importance of occupational measures and the lower proportion of women who have been in paid employment (Bartley, 1999), remains a limitation of how class can be both conceptualised and measured. Furthermore, the extent to which households (whether same sex or heterosexual, contain children or extended family, or other house-sharing arrangements) are the appropriate unit of analysis rather than individuals and the consequences of ignoring within-household inequalities and conflicts also remains open. There are a number of other forms of social discrimination that are not encapsulated within Wright's model including sexism, racism, sectarianism, stigma and discrimination against other minority groups (Hatzenbuehler, Phelan, & Link, 2013; Krieger, 2012). The model we propose below integrates discrimination to set in the context of an interaction with these other social processes which will exacerbate or mitigate the social class processes for particular groups more than others.

Developing a new synthesis of social class and health

Building on Wright's original model, Fig. 2 below proposes an adaptation with three principle social class processes, but extends to include explicit reference to early years' exposures, discrimination, health behaviours and outcomes:

1. Early years' exposure to social class and the differential opportunities this confers (thereby representing the inter-generational class process), determined by the underlying power relations and legal rules and the social class of your ancestors. It also includes the potential for exposures during 'critical periods' in early life to have a longstanding influence on health outcomes.
2. Bourdieu's habitus and processes of distinction which are shaped by the early years' exposures and which subsequently influence the degree to which social closure and opportunity hoarding operate for different groups.
3. The Marxist process of conflict over production determines who is able to live off the labour of others by ownership of land, businesses or shares; who is able to benefit from the labour of others through managerial power; and who must work under labour discipline for a living. It can be best approximated through measures of wealth (which are a source of income/rent from the labour of others) and position in the occupational structure (professional, managerial or routine work). Which group a person belongs to within the Marxist mechanism is determined partially by the underlying power relations and legal rules, for example, concerning inheritance.
4. The Weberian processes of social closure in this model pertain particularly to the processes of credentialing and education which determine how people come to occupy different occupational positions and receive different income streams from employment. People's positions within the occupational structure will be determined by their early years' experience, which confers habitus and distinction, which are advantageous in the processes of social closure and opportunity hoarding.
5. Discrimination recognises explicitly within the model the processes by which groups can experience different treatment because of their membership of a social group and the prevalent power relations in a society (Hatzenbuehler et al., 2013; Krieger, 2012). It is therefore a process which leads to social closure and opportunity hoarding but recognises that this discrimination (e.g. racism) can occur on the basis of biological characteristics (e.g. skin colour) and not just socially generated attributes (e.g. accent). The intersectional social processes linking class and forms of discrimination are central to this model.

Discrimination is also added as an explicit mechanism through which class positions are influenced (whether as a result of sexism, racism, etc.) in recognition that this is both influenced by underlying power relations and legal rules and influences the position of different groups in the hierarchy of production and distribution relations. Also included within the diagram is a recognition that the prevailing class relations, and in particular the balance of power between classes, provides a feedback loop which influences the structuration of class relations. For example, a national strike might lead to a change in government which might lead to a change in legislation to give more power to trade unions in the negotiation of wages; or conversely, mass unemployment might lead to casualisation of the workforce and lead to a weaker workers movement which in turn might lead to government policy changes that favour capitalists over workers over a period of time (Wright, 2010).

In order to investigate the degree to which health behaviours mediate health outcomes generated through the social class processes or exert independent influences, these are shown explicitly in the theoretical diagram. Causal pathways link the underlying power relations and legal rules to all of the class processes because of the influence these have on the nature of class relations and the relative strength of different classes. A direct pathway is also proposed to health behaviours

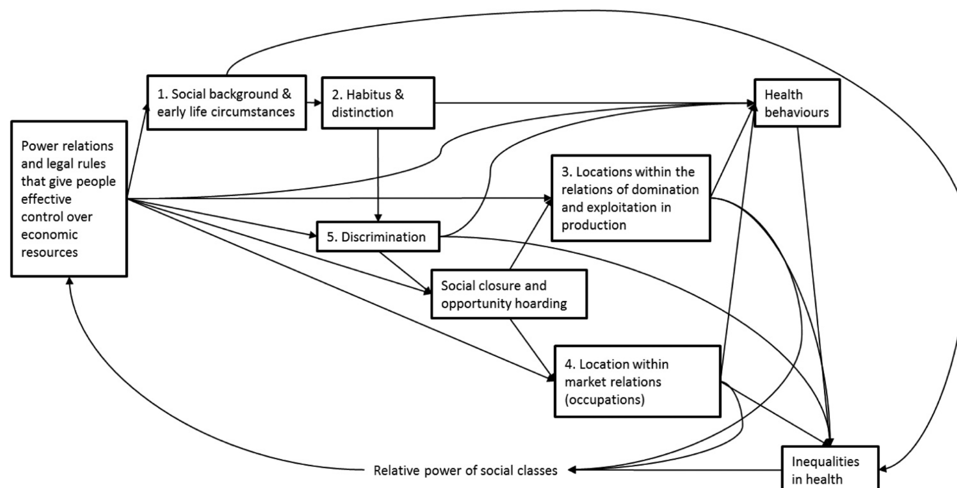

Fig. 2. A modified theorisation of class relations to explore the class mechanisms which explain inequalities in health outcomes. Note – the numbers in some boxes refer to the description of the sub-theories in the text.

given that the degree of regulation of the market is a known determinant of diet, smoking and alcohol consumption (Beeston et al., 2013; Moodie et al., 2013).

It is also possible that a small part of inequalities in health outcomes by socio-economic position is due to health selection – i.e. poor health causes a social slide. In this way, poor health would influence the social class processes relating to market position and occupation. In some circumstances it might also occur through discrimination, habitus/distinction or social closure (e.g. with alcohol-related health problems). However, even for markers of socio-economic position that are relatively changeable over time, such as area deprivation, the role of health selection is minor in explaining health inequalities (Katikireddi, Leyland, McKee, Ralston, & Stuckler, 2017; McCartney, Collins, & Mackenzie, 2013; Power & Matthews, 1997). As such, this is not represented explicitly within Fig. 2. This explicit theoretical representation of social class relations allows the different mechanisms underlying social class to be examined and tested in terms of their ability to explain subsequent health outcomes.

Discussion

Much of the literature on health inequalities uses measures of socio-economic position in a pragmatic way to rank order the population as a means of describing inequalities in health. As data relating individual or group socio-economic position to health outcomes are frequently limited, theoretical considerations about the nature and meaning of different measures of social position, and the potential social processes they might be describing, are often very limited. This paper builds upon Wright's synthesis of social class theories to propose an integrated theory of social class to help researchers understand the range of social processes underlying the broad concept of social class, and to help inform the interpretation of health outcomes which use measures of one or more of these processes. This includes specific theorisation of the power relations and legal rules within societies that empower or disempower different classes; the social background and early years' experiences of different groups; habitus and distinction; discrimination; social closure and opportunity hoarding; and the relative positions and power of social classes in the market and in terms of exploitation and domination.

The key strength of this approach is that the social mechanisms linking the measures of socio-economic position and subsequent health outcomes are explicit and based on a substantial canon of theoretical development over the last 150 years. As such, future empirical work to evaluate the relevant explanatory power, in a variety of contexts, can help to expose which of these mechanisms are more or less important in generating health (and social) inequalities. The theoretical framework proposed here incorporates a more comprehensive range of social class and other social processes than Wright's original synthesis, and is explicit about how these processes interact to generate inequalities in health outcomes. Although it is applied to inequalities in health outcomes, it could be easily adapted to other social inequalities.

A limitation of this approach is that few datasets are available which have good measures of all of these social processes, and as such there is a need to use measures that were not designed for that purpose. Notwithstanding the lack of studies with sufficient data to undertake such comprehensive analysis, there are some available. For example, the National Child Development Study (NCDS, the 1958 British Birth Cohort study) has a very extensive set of measures across all of the social class pathways and mechanisms in our theory (Power & Elliott, 2006). This will be a valuable resource for empirically testing the theory in due course as the birth cohort ages and accumulates mortality events (the cohort is only 60 years old at present). Other cohort studies such as the Whitehall and Midspan studies also have extensive measures of a range of social class mechanisms (Hart, 2005), some of which have been analysed to look at the contribution of different measures (as markers of different class processes) (Davey Smith et al., 1998).

There is therefore a balance to be struck between increasing complexity in the theorisation of social class and the ability to obtain data which represents these processes. The interaction between the social class processes and the broader political context and historical contingencies, as well as intersectional social processes, add further substantial difficulties in attempting to understand the interaction effects. There is therefore a need to test the theory across a variety of populations, geographies, time periods and datasets in order to further develop and refine the theory. Some authors have critiqued Wright's synthesis as giving insufficient attention to the issue of the ownership of capital or in the conceptualisation of surplus labour (Resnick & Wolff, 2003; Tittenbrun, 2014). To the extent that we build upon Wright's synthesis, it is possible that our model is also subject to these limitations, however we argue that this is incorporated in the concepts of exploitation (where the ownership of capital reaps economic rewards irrespective of the labour of those owners). It is also worth noting that the social class processes described by Wright and applied by Muntaner are now widely accepted (Bartley, 2003; Muntaner et al., 2003).

Although the use of social class measures as simply a means of social ranking is very common, there are many who use or recognise the social processes at play which underlie them (Krieger, 2011; Muntaner, et al., 2015; Navarro, 2007; Scambler, 2012). It is easy to fall into a routine within epidemiology of using such markers decontextualized from their underlying social processes. A task for teachers and researchers within public health, epidemiology and sociology is therefore to help one another to put the social context back into the empirical analyses more consistently. Future data collection within cohort studies could seek to develop measures and indicators of the different social class theories and mechanisms described here in order to facilitate future analyses. Testing and refining this theory with data from a variety of populations, contexts and time periods remains important. Although we argue that the theory proposed here advances our ability to understand the generation of health inequalities within societies, this does need further work to understand how this relates to the broader political economy and historical contingencies within societies.

Conclusion

Social class is frequently used to expose inequalities in health outcomes. However, social class measures are commonly used without an understanding of the different social processes the variety of measures seek to capture. We propose a theory of social class expanding on the work of Wright which may help with future attempts to inform health inequalities analyses with a deeper understanding of the sociological processes behind the measures of social class. This new theory includes specific recognition of the role of power relations and legal rules within societies, the importance of social background the experience in the early years', habitus and distinction; discrimination; social closure and opportunity hoarding; and the relative positions and power of social classes in the market and in terms of exploitation and domination.

Competing interests

The authors have no competing interests to declare.

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Ethical statement

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