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# Health Power Resources Theory: A Relational Approach to the Study of Health Inequalities

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## Abstract

Link and Phelan's pioneering 1995 theory of fundamental causes urged health scholars to consider the macro-level contexts that "put people at risk of risks." Allied research on the political economy of health has since aptly demonstrated how institutions contextualize risk factors for health. Yet scant research has fully capitalized on either fundamental cause or political economy of health's allusion to power relations as a determinant of persistent inequalities in population health. I address this oversight by advancing a theory of health power resources that contends that power relations distribute and translate the meaning (i.e., necessity, value, and utility) of socioeconomic and health-relevant resources. This occurs through stratification, commodification, discrimination, and devitalization. Resurrecting historical sociological emphases on power relations provides an avenue through which scholars can more fully understand the patterning of population health and better connect the sociology of health and illness to the central tenets of the discipline.

### Keywords

fundamental causes; health inequalities; political economy of health; power relations

The latter decades of the twentieth century marked a period of epidemiological focus, both conceptually and methodologically, on individual-level behaviors. Through a myriad of sociological contributions, an emphasis on fundamental causes of disease gave social scientists a critical framework through which to explicate health-related inequalities. More recently, the intersection of political and medical sociology has provided a language around the political economy of health. The intention of the current article is to draw out some of the most promising and yet underappreciated aspects of these evolutions to advance a theory of health power resources. This new theory centers on the ways that various resources are made meaningful to health via processes of stratification, commodification, discrimination, and devitalization. These processes determine the distribution as well as necessity, value, and utility of socioeconomic and health-relevant resources. It further aims to embed the quintessential sociological construct of power relations more firmly within study of health and health disparities.

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# BACKGROUND

## Fundamental Causes and Contextualizing Risk Factors

In the 1980s and 1990s, prevailing epidemiological approaches to understanding health inequalities emphasized the role of behavioral risk factors (Pearce 1996), largely obscuring structural influences on well-being (Cockerham 2005). With the publication of "Social Conditions as Fundamental Causes of Disease" in the *Journal of Health and Social Behavior*, Link and Phelan (1995) offered a compelling alternative to risk-factor epidemiology. Borrowing from prior work (House et al. 1994), Link and Phelan's theory of fundamental causes posited that social conditions (e.g., socioeconomic status, race, and gender) are inextricably linked to a wide and dynamic array of outcomes (Cassel 1976) and mechanisms (Lieberson 1985) via the differential distribution of flexible resources vital to health. Mechanisms included quality health care, health literacy, pro-health social networks, healthy lifestyle choices, safe neighborhoods, safe workplaces, and restorative leisure opportunities (Link and Phelan 2002). Fundamental causes provided an account not only of why health inequalities exist but also why they are so reliably reproduced even when differences in health care access, lifestyle choices, neighborhood quality, and so on have been reduced.

Based on the attention Link and Phelan paid to socioeconomic status (SES) as a flexible resource, sociologists generated a volume of research linking income and education to health inequalities using the fundamental causes framework (Brown et al. 2012; Masters, Hummer, and Powers 2012; McDonough, Worts, and Sacker 2010; Miech et al. 2011; Pampel 2009; Zapata Moya et al. 2015). Research subsequently expanded to include race and gender as social conditions in recognition of their close tie to flexible resources (Daw 2015; Hamilton, Hale, and Savinar 2019; Harder and Sumerau 2018; Kim, Dolecek, and Davis 2010; Oropesa, Landale, and Hillemeier 2015; Roxburgh 2009; Turner, Brown, and Hale 2017), a development sanctioned by Link and Phelan in a later article (Phelan, Link, and Tehranifar 2010).

The elegance of the fundamental cause concept and the rapid pace with which it was adopted obscured other foundational aspects of the framework, however. Before even introducing the notion of social conditions as fundamental causes of disease, Link and Phelan (1995) devoted the opening section of their article to another topic—the need to contextualize risk factors. They argued that contextualizing risk factors was essential because:

> Efforts to reduce risk by changing behavior may be hopelessly ineffective if there is no clear understanding of the process that leads to exposure. For example, there are powerful social, cultural, and economic factors shaping the diet of poor people in the United States. Consequently, providing information about healthy diet to poor people and exhorting them to follow nutritional guidelines is unlikely to have much impact. Without an understanding of the context that leads to risk, the responsibility for reducing the risk is left with the individual, nothing is done to alter the more fundamental factors that put people at risk of risks.
>
> (Link and Phelan 1995:85)

For Link and Phelan, it seemed, these "social, cultural, and economic factors" determined the extent to which social conditions were linked to exposures and to which exposures were linked to disease.

Link and Phelan (1995) set forth contextualizing risk factors as the catalysts that transform social conditions into fundamental causes. Yet despite the primacy of this construct and the popularity of the theory, scholarship contextualizing risk factors in this way never quite got off the ground.[1] There are numerous reasons why researchers may have struggled to empirically address the risk-factors contexts emphasized by Link and Phelan. Perhaps the article, whose title referenced social conditions, insinuated the primacy of this theoretical thread. The tendency to privilege social conditions over contextualizing risk factors may also have been reinforced by how social conditions were defined in initial applications. Although Link and Phelan's definition of social conditions was principally about social relationships, early studies largely operationalized social conditions in terms of individual characteristics.[2] By downplaying how social conditions embody individuals' relationship to others, these treatments obfuscated the relevance of the context in which social conditions gain significance.

Others have pointed out that research foci are a product of ideological orientations that present public issues as private troubles (Mills 1970). Muntaner et al. (2015:269) describe this practice as "consistent with the biological, psychological, and quantitative reductionism that characterizes the methodological individualism of contemporary social science." Commenting on scholarly enthusiasm for the concept of socioeconomic status, Navarro (2009:427) asserts that "the disappearance of class analysis and class discourse … is politically motivated. It is precisely a sign of class power (the power of the dominant class) that class analysis has been replaced by categories of analysis less threatening to the social order." Whatever the reasons, it seems that research on risk-factor contexts, particularly those of a relational nature, remains underdeveloped, even in the face of efforts to fortify fundamental cause theory against "conceptual devolution" (Lutfey and Freese 2005:1330).

## The Political Economy of Health

While medical sociologists pursued research regarding social conditions, a large and growing U.S. disadvantage in population health (National Research Council and Institute of Medicine 2013; Nolte and McKee 2011; Thakrar et al. 2018; Verguet and Jamison 2013) prompted comparative political sociologists to focus on how institutions might function to contextualize risk factors for health. Given the United States's weak system of social protection relative to other rich democracies, the welfare state became a common independent variable (Avendano and Kawachi 2014; Bezruchka 2012; Komlos and

1. A search using Web of Science citation database yielded 50 articles referencing Link and Phelan's (1995) "fundamental cause," "fundamental causes," or "fundamental causation" in the title alone. A second search for articles with "contextualize risk factors," "contextualized risk factors," or "contextualizing risk factors" yielded zero.

2. "We define social conditions as 'factors that involve a person's *relationships* [emphasis added] to other people. These include everything from relationships with intimates to positions occupied within the social and economic structures of society. Thus, in addition to factors like race, socioeconomic status, and gender, we include stressful life events of a social nature . . . as well as stress-process variables" (Link and Phelan 1995:81).

Lauderdale 2007; Muennig et al. 2018; Woolf and Aron 2018). This cross-national research on the "political economy of health" hypothesizes the welfare state as a key avenue through which health-relevant needs and/or wants are met (Lundberg et al. 2008; McCartney et al. 2019; Raphael 2015). Research in this area has promoted the notion of "social policy as health policy" (Lantz, Lichtenstein, and Pollack 2007; Schoeni et al. 2008; Woolf 2009; Zajacova and Montez 2017).

Most studies in this area compare and contrast the health of nations with differing welfare state regimes (Eikemo et al. 2008; Martikainen et al. 2004; Muntaner et al. 2011; Richter et al. 2012; Samuel and Hadjar 2016; Van de Velde et al. 2014), overall welfare generosity levels (Bradley et al. 2011; Reynolds and Avendano 2018; Rubin et al. 2016), and program-specific generosity levels. The latter group includes studies on income support policies (Nelson and Fritzell 2014), unemployment insurance (O'Campo et al. 2015), family benefits (Avendano et al. 2015), employment protection legislation (Hipp 2016), active labor market policies (Jakubow 2016), and social security/retirement pensions (Esser and Palme 2010). Although generally reporting welfare-state effects on health, the weight of the evidence varies depending on the specific predictors (Brennenstuhl, Quesnel-Vallee, and McDonough 2012; Hillier-Brown et al. 2019; Muntaner et al. 2011) and whether the outcomes represent health levels or health inequalities (Bambra 2013; Bergqvist, Yngwe, and Lundberg 2013; Popham, Dibben, and Bambra 2013).

Insights from this cross-national research have been imported into domestic research on how states "vary in policies, resources, and opportunity structures in ways that affect population health" (Montez, Zajacova, et al. 2019:3). This literature exploits the substantial cross-state variation in social (Bradley et al. 2016; Bruch 2018) and health policy (Grumbach 2018; Kaestner et al. 2017) engendered by the delegation of federal decision-making responsibilities down to lower administrative units (Kondratas, Weil, and Goldstein 1998) as well as the rise of preemption laws that hinder the implementation of policies at the local level (DuPuis et al. 2017). The cumulative health effects of "U.S. states as context" (Montez, Hayward, and Zajacova 2019:624) have heightened as Americans grow less geographically transitory (Molloy, Smith, and Wozniak 2011).

Research on subnational differences in specific types of policies have examined the health effects of food assistance (Chatterji and Brooks-Gunn 2004; Gundersen 2015), unemployment insurance (Cylus, Glymour, and Avendano 2015), Supplemental Security Income (Herd, Schoeni, and House 2008), housing assistance (Fenelon et al. 2018), education policy (Muennig et al. 2011), the earned income tax credit (Strully, Rehkopf, and Xuan 2010), the minimum wage (Komro et al. 2016), and parental leave (Montez et al. 2014). Research has also attended to institutions beyond the welfare state, including political representation in terms of party affiliation (Beckfield and Krieger 2009; Navarro et al. 2006) and gender (Homan 2019). Nevertheless, research on the health effects of politics more broadly defined remains scarce (Mackenbach 2014).

Whether or not focused on the welfare state, literature on political economy of health spotlights institutions as sources of stratification. One especially comprehensive account of how institutions affect health through stratification is provided by Beckfield et al.

(2015:9), who describe how institutional arrangements "account for how and why the social determinants vary in their effects" but also that they independently affect health inequalities through processes of distribution, compression, and imbrication (overlap). The socioeconomic resources differentially allocated via stratification are related to health through a multitude of material and psychosocial pathways. Important material pathways include food insecurity (Martin and Lippert 2012), uninsurance or underinsurance (Levy and Meltzer 2008), and workplace hazards (Burgard and Lin 2013).

The benefits associated with belonging to a privileged strata derive not only from one's own material advantages but also from the material advantages that emerge when means are aggregated at the group level. Lutfey and Freese (2005) refer to these spillover effects as an overlooked metamechanism through which SES becomes predictive of health. For example, they point to the less aggressive marketing of tobacco and alcohol toward higher income groups, which reduces a group member's risk of substance use regardless of whether they engage in any health-directed activity whatsoever. This phenomenon is well documented by neighborhood effects studies showing how built environment (Wen and Kowaleski-Jones 2012), neighborhood disorder (Ross and Mirowsky 2001), collective efficacy (Sampson, Morenoff, and Earls 1999), and the like act on health.

Psychosocial pathways are also implicated in the link between SES and health. These pathways include acute and chronic stress (Turner, Wheaton, and Lloyd 1995), health-deleterious coping behaviors (Pampel, Krueger, and Denney 2010), and low levels of mastery, self-esteem, and social support (Ross and Wu 1995).

## POWER RELATIONS AND THE TRANSLATION OF SOCIOECONOMIC RESOURCES AND HEALTH-RELEVANT RESOURCES

Underlying the emphasis on institutions and stratification is an assumption that power relations matter for life chances. This assumption is strongly supported by the theory of power resources, which has long acknowledged the crucial role that power relations play in influencing opportunity structures (Korpi 1983; Stephens 1979). This theory asserts that in rich democracies, the more power the working class consolidates in labor unions and left-leaning political parties, the greater the downward distribution of vital economic resources through social policy (Brady 2009; Huber and Stephens 2001; Korpi and Palme 2003; Moller et al. 2003). Extensions of the theory propose women's autonomy as a third power resource affecting the formation of welfare states (Herd 2005; Orloff 1993). Work at the nexus of political and medical sociology, in fact, defines institutions as "a combination of schemas and resources that organize power" (Beckfield 2018:16). Krieger (2008:223) notes, "Driving health inequalities are how power—both power over and power to do, including constraints on and possibilities for exercising each type—structures people's engagement with the world and their exposures to material and psychosocial health hazards."

Although power resources theory points to the consequences of power distributions for well-being, research has rarely leveraged this, or other power-based, theories to advance the understanding of population health. This is curious considering that power distributions constitute preeminent contexts that "put people at risk of risks." I identify four main

processes linking power relations to health. The first of the four processes is stratification—the initial distribution of socioeconomic resources, as previously described. The remaining three are less recognized but critical processes in which power relations translate the meaning of socioeconomic resources as well as health-relevant resources by determining their necessity, value, and utility.

Health-relevant resources are those resources that directly affect health: nutrition, health care, health education, stress, lifestyle, safety. Recognizing these translation processes is integral because the links among socioeconomic resources, health-relevant resources, and health are not automatic; after all, socioeconomic resources matter when they enable the acquisition of health-relevant resources, and health-relevant resources matter when they are used. This point has been articulated by two recent ASA Presidents urging sociologists to take more seriously inequalities in the distribution of cultural resources, such as recognition (Lamont 2018) and status (Ridgeway 2014). In her 2013 Presidential address, Cecilia Ridgeway (Ridgeway 2014:2) points out, “Indeed, people often want money as much for the status it brings as for its exchange value.”

As previously mentioned, power relations translate the meaning of socioeconomic and health-relevant resources through three mechanisms: (1) commodification, which influences the necessity of socioeconomic resources; (2) discrimination, which influences the value of socioeconomic resources; and (3) devitalization, which influences the utility of health-relevant resources. The first mechanism through which power relations translate the meaning of socioeconomic and health-relevant resources is commodification, which alters the necessity of socioeconomic resources for acquiring health-relevant resources. Commodification is typically defined as the provision of basic needs based on labor market participation rather than social citizenship rights (Esping-Andersen 1990).[3] Health *de*commodification represents “the extent to which an individual’s access to health care is dependent upon their market position and the extent to which a country’s provision of health is independent from the market” (Bambra 2005:200). A prime example of health decommodification is universal health care, which decouples health care—to a greater or lesser extent, depending on the form it takes—from income and relevant institutional attachments (Gutierrez 2018). The extensive commodification of health in the United States helps to explain why many innovations in medical technology come to be associated with the emergence or maintenance of health disparities (Chang and Lauderdale 2009; Polonijo and Carpiano 2013). This proposition is underscored by Phelan et al.’s (2010) assertion that universal provision of window guards and lead abatement would improve health among low-income populations and Mechanic’s (2002) recommendation of cheap health interventions that obviate, or at least minimize, the necessity of socioeconomic resources.

In establishing the basis for receiving social goods and services, power holders shape the intensity of commodification. Receipt of goods and services may be based on ability to pay (e.g., daycare in the United States), need (e.g., subsidized housing in the United States), or neither (e.g., Medicare in the United States). For instance, the consolidation of power

[3]I use the term *commodification* rather than the more common *decommodification* to align the translation mechanisms such that they all represent an adverse effect on the availability or utility of health-enhancing resources.

among gig-economy employers made possible stipulations in federal labor market policy exempting ride-share providers from the Fair Labor Standard Act because they were not "employees." In New York City, drivers consolidated their own power in the Independent Drivers Guild and lobbied successfully to secure a wage floor commensurate with the New York City minimum. They argued that such protections were warranted because drivers were effectively, even if not legally, employees. In essence, the consolidation of power among workers allowed them to mitigate the consequences of economic precarity by regulating the behavior of the "natural market" and redefining the basis on which they were entitled to wage guarantees. A wealth of research suggests that the effects of socioeconomic and other associated statuses vary substantially between nations depending on the degree and nature of state decommodification (Bakhtiari, Olafsdottir, and Beckfield 2018; Quesnel-Vallée, Willson, and Reiter-Campeau 2016; Van de Velde, Bracke, and Levecque 2010). As Olafsdottir (2007:240) notes in her study comparing the United States and Iceland, "Policies interact with stratification created and sustained in the market to alter the relationship of affluence and family structure to self-rated health."

A second mechanism through which power relations translate the meaning of socioeconomic and health-relevant resources is discrimination, which alters the value of socioeconomic resources for health-relevant resources. More specifically, racism, sexism, homophobia, and other forms of systematic biases subject minoritized groups to disproportionate amounts of psychosocial or physical insults and abuse than would be predicted by their SES (Perry, Harp, and Oser 2013). These forms of discrimination essentially render socioeconomic resources worth less among some groups than among their more advantaged counterparts.

Ridgeway's work on status emphasizes how the discriminatory judgments, preferences, and reactions driven by cultural status beliefs compound over the life course to disadvantage individuals and groups (Correll and Ridgeway 2003; Ridgeway 2011). Her treatment is especially germane in the context of health power resources (HPR) because it demonstrates how micro-level manifestations of discrimination derive from (and also reinforce) macro-level cultural biases. She notes, "It is widely shared cultural status beliefs at the macro level that shape the everyday social relations at the micro level that infuse group differences into positions of power and resources in society's consequential institutions and organizations" (Ridgeway 2014:2). Research on intersectionality articulates how the meaning of a social status is conditional on other statuses with which it interacts, generating, for example, diminished health returns to SES among minoritized groups (Brown 2018; Finnigan 2014). Masters, Link, and Phelan (2015) proffer three avenues altering the group-specific health returns to SES: accumulation of resources, effective deployment of resources, and contextual contingency (or the opportunity to use resources once acquired).

Power relations shape the intensity of discrimination by establishing rules that define which social goods are considered rights and which individuals deserve such rights and by enforcing those rules (Beckfield 2018). Depression-era use of residential security maps disqualified many black neighborhoods from federally insured loans and raised the costs of mortgages, pushing many blacks into emptying white neighborhoods that would later be cut off from investment (Jackson 1985). As a result, black families reaped fewer benefits of homeownership, having both heavier debt burdens and greater risk of neighborhood

deterioration. This practice of “redlining,” as it came to be known, is an apt example of how power relations deflate the value of socioeconomic resources through discrimination (Gee and Ford 2011; Williams and Collins 2001).

The final mechanism through which power relations translate the meaning of socioeconomic and health-relevant resources is devitalization, which alters the utility of health-relevant resources. Because it is not, to my knowledge, developed else-where in the social sciences, I afford the concept of devitalization somewhat greater attention than that given commodification and discrimination. In the context of HPR, devitalization refers to the act of depriving one of vitality, vigor, or effectiveness vis-à-vis health-relevant social–psychological factors that deter the application of health-enhancing resources. Devitalization is but one example of how social conditions influence peoples’ response to their environment. Social psychologists have found that under conditions of deprivation, the burden of managing chronic and acute stressors impairs people’s ability to think about and plan for the future. This results in a predisposition toward shorter time horizons (Guthrie, Butler, and Ward 2009; Jarosz 2018; Koenig, Swanson, and Harter 1981). These shorter time horizons are associated with a preference for health behaviors conducive to immediate satisfaction but not necessarily later-life health (Kahana, Kahana, and Zhang 2005; Robbins and Bryan 2004; So et al. 2016).

The preference for uncomplicated, but often more deleterious, health behaviors is compounded by repeated opportunity blockages. Blocked opportunities challenge the belief that behaviors serving longer term interests will produce the desired outcome (Corrigan, Larson, and Rusch 2009). This weakens one’s sense of control and inhibits effort (Mirowsky and Ross 1998). Effort may also be discouraged by the internalization of negative beliefs about the self that emerge after repeated exposure to unfavorable representations and/or rhetoric (Lamont 2000). Lamont (2018) describes how neoliberal doctrine has diffused beyond the confines of the market and penetrated the cultural sphere to promulgate neoliberal standards of self-worth that are predicated on socioeconomic success, competitiveness, and self-reliance (Lamont et al. 2016; Peacock, Bissell, and Owen 2014). These standards are, at once, gaining in force and declining in feasibility, leaving a large fraction of the populace feeling like, and represented as, “losers.” In other words, power relations shape the intensity of devitalization by producing a habitus (Bourdieu 1990), or set of stable dispositions, that tend toward the satisfaction of short-term desires rather than long(er)-term goals.

The psychological consequences of disadvantage are delineated in scholarship on how scarcity affects decision-making. Mullainathan and Shafir (2013) describe how income and/or time poverty produces its own mindset, which then influences behavior. Scarcity forces many more decisions and meanwhile leaves little bandwidth with which to make them. This combination of circumstances predisposes taxed individuals to choose options that are manageable, even if not advantageous. For example, low-income individuals are likely to be distracted by stressors, depleted by temptations, and demoralized by stereotypes while also needing to constantly attend to the tradeoffs imposed by insufficient resources. As a result, individuals may opt to take a high-interest loan, forego a lengthy public assistance application, or choose the couch over the gym. This emerging science suggests

that behaviors in a context of deprivation are neither rational nor pathological; they are psychological reactions to a context of scarcity.

Whereas commodification and discrimination describe processes through which power influences the options available to people, devitalization describes the process through which power influences which options people actually exercise. Devitalization still accounts for the constraints imposed by disempowerment, but it focuses on how choices are made within those constraints. By illuminating how the power context changes the necessity, value, and utility of resources, it helps one to understand why similar resources do not always produce similar outcomes. And it makes clear that power relations actively mold the space, both materially and ideationally, within which individuals live.

## A Theory of Health Power Resources

Based on what is known about the translation of socioeconomic resources and health-relevant resources, power relations stands out as a valuable concept in improving the understanding of population health and health inequalities. To that end, I advance a theory of health power resources. Although inspired by previous work on fundamental causes, political economy of health, and power resources, HPR constitutes more than a mere extension, synthesis, or reformulation of these theories. Beyond the basic fact that HPR is centered on a different outcome, the classic version of power resources is concerned almost exclusively with a single societal institution—the welfare state. More recent incarnations of power resources connect power to the life chances (poverty, inequality) shaped by welfare state behavior but still remain focused on social policy. HPR, on the other hand, views not only *other* institutional arenas but also noninstitutional arenas as viable subjects of inquiry. In addition, classic power resources theory examines the balance of power across a limited set of social axes—namely, class and gender. HPR, rather, contends that health inequalities will reflect the power relations between any two groups whose interests are antagonistic.

HPR moves beyond expanding the conceptualization of independent and dependent variables, however. Indeed, with the adaptation of “women’s power resources” (Hobson and Lindholm 1997), power resources has already proven itself flexible. The hallmark of HPR is less in its enhanced applicability than in its ability to, within a single framework, account for the complex ways in which power translates the meaning of socioeconomic resources and health-relevant resources by determining their necessity, value, and utility. With rare exception (e.g., Brady, Finnigan, and Hübgen 2017), the terminus for power resources research is the distribution of socioeconomic resources; it has little to say about the meaning of those resources. HPR regards the translation of socioeconomic resources and health-relevant resources via commodification, discrimination, and devitalization as the crucial stage at which health inequalities emerge. Regardless of how few or how many socioeconomic or health-relevant resources one is endowed with, the determining factor will be the necessity, value, and utility of those resources for health. HPR theory offers a unified way to understand how the power that inheres in welfare states—as well as in other social structures—affects health by determining the distribution (via stratification), necessity (via commodification), value (via discrimination), and utility (via devitalization) of resources.

Using Link and Phelan's (1995) terminology, HPR asserts that the consolidation of power distributes risks through stratification (i.e., determines which groups are disproportionately exposed to risks) and moderates risks through translation (i.e., determines how predictive those risks are for poor health among the group). The emphasis on power relations echoes that of recent literature on poverty/inequality. This literature presents social policy not as a driver of poverty and inequality but as a channel through which collective actors manifest power. It is also careful to distinguish between distributions and the consequences of those distributions. For example, Brady et al. (2017) differentiate "prevalences" from "penalties" in an effort to emphasize that the relationship between poverty risk factors and poverty itself is not automatic; rather, it is contingent, at least in part, on the generosity of the welfare state. HPR shares Brady and others' (DiPrete 2002; Western et al. 2012) acknowledgment of how power determines the penalties, or meaning, associated with risks—and adds a concomitant focus on how power also determines the initial distribution of those risks.

Within this theory of HPR, power is conceptualized most squarely in the Weberian tradition, which treats it as "the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance, regardless of the basis on which this probability rests" (Weber 1968:53). Although translations of Weber's original text vary (Wallimann, Tatsis, and Zito 2016), most interpret his definition as a commentary on the state's relationship to its citizens, where power is understood less in terms of individual actors than societal institutions. Importantly, however, the (sovereign) state is not the only or even the most powerful site of power consolidation. As Foucault (1980) argued, power takes shape outside of formal institutions and in ways that are more diffuse and discursive.

Given the reference to power within fundamental causes, it is worth delineating how the concept is used differently in the theory of HPR. In Link and Phelan's (1995) formulation, power is presented as one of the flexible resources individuals can deploy to protect against and buffer the effects of disease. They write, "We define resources broadly to include money, knowledge, power, prestige, and the kinds of interpersonal resources embodied in the concepts of social support and social network" (Link and Phelan 1995:87). In my formulation, power is presented as a product of social groups consolidating and coordinating efforts that affect stratification, commodification, discrimination, and devitalization. Two distinctions can be made. First, where fundamental causes treat power as a property of the individual, HPR treats it as a property of the group. Second, using common parlance in the study of health inequalities, power is *downstream* of social conditions under fundamental causes but *upstream* of social conditions under HPR. Figure 1 provides a conceptual model of HPR depicting power as an antecedent to the socioeconomic resources that define social conditions for Link and Phelan.

HPR theory can help one to understand empirical findings that cannot be neatly explained by other theoretical approaches. First, it solves the tricky problem of how a fixed characteristic could be the "cause" of anything. Individual-level characteristics are often merely proxies for complex dynamics (Hedstrom and Swedberg 1998). This is especially true of those characteristics (e.g., race [Duster 2005] and gender [Roxburgh 2009]) that are mostly unchanging across a person's lifetime.[4] By concentrating on the distribution of power between groups, one reorients away from a focus on the effect of individual characteristics

to the effect of the underlying dynamics that make those characteristics matter. For example, health research on gender minorities typically compares health between transgender and cisgender individuals. Observed differences (i.e., disadvantages), after "controlling for" unobserved heterogeneity between groups, are then explained as the "effect" of being transgender. Researchers regularly speculate as to how such health disadvantages accumulate. But speculation is not necessary. Instead of using between-variation to infer the processes whereby being transgender comes to be associated with health, these processes could be explicitly investigated—for example, by examining the health effects of changes in the transgender proportion of the clinical workforce or the number of transgender-affirming hospital procedures implemented in a hospital/health care system.

Second, HPR accounts for resource gradients not accompanied by the expected health gradients. Research on the occupational gradient in health indicates that despite their higher wages, supervisors often exhibit higher rates of depression and anxiety than the frontline workers they manage (Muntaner et al. 1998). Findings like this are accommodated within the HPR framework because it acknowledges that unlike the wage distribution, the power distribution for supervisors is not linear. As a result of collective bargaining, supervisors may actually possess less power than workers to determine the distribution of socioeconomic resources (while also possessing less power than managers/owners).

Third, HPR unearths the processes that influence institutional effects on health. Although it greatly advances the understanding of how institutions function to affect health, the political economy of health literature remains mostly silent as to *why* different institutions function as they do. HPR suggests that the functional characteristics of a given institution are reflective of how power resources were catalyzed during the institution's formation or change. For example, in chronicling the emergence of an educational gradient among the intellectually disabled, Landes's (2017:71) study implies that heterogeneity in educational outcomes was not inevitable but results purposefully from what was essentially a piecemeal consolidation of power among parent advocates: "Building on increased public awareness of disability associated with the return of veterans who acquired a disability during their military service, parents of children with intellectual disability developed formal organizations during the 1950s that advocated for the inclusion of their children in the public education system." Where the political economy of health perspective might emphasize the health effects of compulsory education as an institution, HPR emphasizes the role that power resources played earlier in the causal order to limit the boundaries of compulsory education's reach.

Another example is provided by Bengtsson, Dribe, and Helgertz (2020) in their study of the reappearance of a Swedish health gradient in the final quarter of the last century. They note that the steep rise in psychosocial workplace-related stress in the 1970s was a probable factor in producing the gradient. These stresses were, no doubt, spurred or exacerbated by wage stagnation and benefit shrink-age that constituted a dramatic change from the postwar period (Gottschalk and Moffit 2009). Although there is debate as to its relative contribution,

[4]. Although race and ethnicity scholars have made clear that race is more accurately described as a "sticky" because it tends to adhere once assigned, this characteristic is frequently operationalized as fixed.

scholarship attributes these changes in the economic landscape at least partially to a decrease in workers' labor market power and an attendant rise in employers' monopsony power to set and keep wages low (Bivens, Mishel, and Schmitt 2018).

Finally, viewing lifestyle choices as a response to devitalization resolves some of the long-standing questions around why individuals might adopt unhealthy behaviors even when healthier options have been made easily accessible. Freese and Lutfey (2011) note that medical sociology's capability to explain persistent health inequalities has been hampered by its reluctance to confront this uncomfortable fact for fear of blaming the victim. Instead, medical sociologists opt to overlook such instances and frame adverse health behaviors primarily as a result of constrained choice. As an example, they note that scholars have yet to explore why there exists a gradient in seat belt use although the benefits of seat belts are well understood by the public and seat belts are legally mandated and, therefore, ubiquitous. HPR provides a means of understanding this phenomenon in a way that incorporates previous efforts to bridge the agency-structure divide through the use of Bourdieu's concept of habitus (Collyer et al. 2015; Freese and Lutfey 2011; Korp 2008; Veenstra and Burnett 2014).

The theory of HPR is also well aligned with subsequent efforts by Link and Phelan focusing less on fixed characteristics and more on relational processes. In one vein of this research, they explore racism as a "fundamental cause" (Phelan and Link 2015). In another vein, they elaborate a model of how stigma operates as a context from which risks emanate. Although far from singular (Pescosolido and Martin 2015), their conceptual model defines stigma as aimed at keeping people "down, in and away" (Link and Phelan 2014:1). These aims are achieved not only through personal interactions but also through "societal-level conditions, cultural norms, and institutional policies that constrain the opportunities, resources, and well-being of the stigmatized" (Hatzenbuehler and Link 2014:1). Link and Phelan's discussion of stigma presents the concept of power as a critical context for understanding why "social conditions" are so durably connected to health and illness.

## Empirical Application of Health Power Resources

Health power resources can be applied flexibly across arenas, forms, levels, and methods. To demonstrate, I begin by describing how one might study power consolidation across a variety of arenas using the example of gender identity. Research suggests that gender minorities have higher rates of physical and mental health problems and that this disproportionate disease burden owes largely to the stress produced by exposure to stigma and discrimination at all levels of society (White Hughto, Reisner, and Pachankis 2015). Through the lens of HPR theory, discrimination is regarded as a mechanism by which majority groups channel the power they have consolidated. The question then becomes: In which arenas does the consolidation of power matter for discrimination?

Traditional power resources theory prioritizes labor unions and Left parties as arenas in which the consolidation of power should be measured (Brady and Sosnaud 2010). HPR, on the other hand, does not posit a static, or finite, set of relevant arenas to be considered; rather, relevant arenas should be identified based on the extant literature. For example, one might measure the consolidation of power in mass media as it influences attitudes

toward and treatment of minorities more generally and transgender individuals more specifically (Gillig et al. 2017). Because gender minorities suffer worse health as a result of delaying care due to fear of discrimination (Seelman et al. 2017), studies might measure the consolidation of power in the local health services sector. Finally, as labor market discrimination pushes many gender minorities into jobs with higher occupational hazards (Leppel 2020), research might measure the consolidation of power in the surrounding labor market. The precise measure of power should capture those aspects of the exposome that are most likely to affect the population, outcome, and mechanism of interest (Wild 2012). For example, based on research indicating that Americans in low-population areas rely less on preventive and more on emergency medicine (Greenwood-Ericksen and Kocher 2019; Loftus et al. 2018), a study of rural transgender health might best operationalize power consolidation in hospital, as opposed to clinic, settings.

A given power arena might primarily engage in one type of mechanism, but that does not imply that it cannot or does not also engage in other mechanisms. By way of illustration, the (welfare) state might be more heavily involved than other arenas in processes of (de)commodification, largely determining the necessity of market income for the acquisition of goods and services. But that is not to say that the welfare state does not also influence the value and utility of socioeconomic resources and health-relevant resources via discrimination and devitalization. For example, use of American safety-net programs has been shown to intentionally and unintentionally exclude certain segments of the population (Edwards 2020; Floyd 2020; e.g., discrimination) and produce feelings of shame among recipients (Sherman 2013; Sykes et al. 2015; Whittle et al. 2020; e.g., devitalization).

Power in any chosen arena can be operationalized in terms of how it is possessed by social actors or how it is exercised by social actors. A scholar interested in how the health of gender minorities is affected by their relative power in health care delivery systems, for example, might measure relative power as the transgender proportion of the clinical workforce in hospital/health care systems or as the implementation of transgender-affirming hospital policies (Hart et al. 2019). In the first case, the focus is on the power held by gender minorities; in the second, it is on the exercise of this power. Whether one or the other is chosen depends on what existing research says about the form(s) of power likely to impact health for specific group(s).[5]

The foregoing discussion implies that HPR theory can be readily applied at various levels of analysis. The political theory of power resources from which HPR borrows emphasizes cross-national variation, but power relations can be characterized in contexts as expansive as the global region and as narrow as the organization. Key to selecting the level of analysis is evidence that a given group's concentration of power at that level has the potential to impact the health outcomes of interest. For example, if the implementation of transgender-affirming hospital procedures is conscribed by preemption of local authority, the most appropriate level of analysis might not be the health care system, but the state.

[5]Measures of exercised power may be further distinguished on the basis of what Krieger (2020) refers to as "rule-based" or "inferred." Rule-based measures rely on documented rules (i.e., redlining maps), whereas inferred measures rely on evidence construed to represent the legacy of rules (i.e., neighborhood racial composition).

Finally, it bears mentioning that nothing about HPR theory requires that power be operationalized strictly using quantitative methods. One example of qualitative research that fits nicely within the HPR framework is an analysis by Poteat, German, and Kerrigan (2013) of transgender individuals' interactions with medical providers. The authors sought to understand how the traditional patient–provider power imbalance is challenged by health professionals' limited knowledge of transgender patient needs and also how that power imbalance is restored though interpersonal stigma. They note "many episodes in which both medical providers and transgender participants described blaming, shaming, othering and discrimination enacted by health care providers toward transgender patients….These actions reinforce the medical provider's authority by positioning the transgender patient as inherently problematic" (Poteat et al. 2013:27). Poteat et al. (2013) show, using in-depth interview data, how physicians use their cultural health capital (Shim 2010) in ways that reaffirm their advantaged position in the power relationship at the patient's expense.

Published studies that (even if unknowingly) embrace an HPR approach to understand health and health correlates illustrate the theory's utility (Kentikelenis and Rochford 2019; LaBriola and Schneider 2020; Loomis et al. 2009). For example, Fu and George (2015), in their investigation of the social gradient in obesity in China, find that position in the work-unit system, not Western indicators of income and education, is the factor that maintains a strong correspondence with health in postsocialist China. In interpreting their findings, the authors conclude that this is because of the power associated with the work-unit system. "It is likely that SES is a better proxy for power in some societies and at some historical times than others. Yet, scholars should be cautious in interpreting SES as universal indicators of power and privilege in societies" (Fu and George 2015:806). Their study attests to the importance of relative measures of power over absolute measures of socioeconomic status. HPR also provides a framework in which to situate the proliferating literature on various structural "-isms" (Krieger 2020). Within this framework, structural racism, sexism, heteronormativism, gender binarism, and so on can be seen as the product of successful efforts among privileged groups to consolidate power and shape, to their advantage at others' expense, the distribution and meaning of material and cultural resources across multiple societal systems.

## Health Power Resources and a Return to Relational Inequality

HPR theory privileges those contexts that "put people at risk of risks" over the risks themselves, whether they are behaviors or social statuses. It suggests a specific type of context—the distribution of power—as a candidate explanation for how inequalities across groups emerge. By emphasizing how stratification, commodification, discrimination, and devitalization collectively influence the distribution and meaning (i.e., necessity, value, utility) of socioeconomic and health-relevant resources, this theory illuminates how the power relations between social groups are likely to predict differences in population health. As in Krieger's (1994) web of causation, it draws scrutiny to the spider outside the current theoretical and empirical ambit.

Thirty years ago, Turner (1987:1) asserted that "the sociology of medicine should be more concerned to identify itself with the central theoretical problems of sociology as such; it is

only by a shift toward the more theoretically formulated problems that the old dichotomy of sociology-in-medicine and the sociology of medicine will be finally surpassed." HPR seeks to connect the sociology of health and illness with the broader discipline by reengaging sociology's traditional emphasis on power (Bourdieu et al. 1991; Domhoff 1967; Gramsci 2010; Lenski 1966; Mills 1956; Piven and Cloward 1977).

Although the concept of power continues to appear in sociology's top journals (Brady 2019; Kerrissey 2015; Rosenfeld and Denice 2015; Volscho and Kelly 2012; Western and Rosenfeld 2011), other sociological subfields have retreated somewhat in recent decades from relational approaches to studying inequality (Emirbayer 1997). In their recent book, Tomaskovic-Devey and Avent-Holt (2019) describe the movement of organizational sociologists away from relational approaches that necessarily involve consideration of power relations and toward agentic and/or structural approaches to inequality. In the field of medical sociology, this movement is epitomized by the substitution of SES for social class. Dominating recent scholarship are gradational approaches that place attributes of the individual (education, income, occupational prestige, etc.) at the center of analysis. Muntaner et al. (2015) advocate, instead, for a neo-Marxist definition of social class as constituted by a set of power relations vis-à-vis other actors in systems of economic production. They contend that attending to class in this way surfaces, or at least raises questions about, hidden processes through which class positions come to be associated with life chances. The work of Tomaskovic-Devey and Avent-Holt (2019), Muntaner et al. (2015), and others (Ray 2019) points to the untapped potential of power relations in research about all manner of inequalities, not least of which health.

In 1995, Link and Phelan wrote:

> To understand associations between fundamental causes and disease, medical sociologists need to examine the broader determinants of the resources that fundamental causes entail. This directly sociological enterprise will link medical sociologists to the broader discipline in a productive way as we seek to understand how general resources like knowledge, money, power, prestige, and social connections are transformed into the health-related resources that generate patterns of morbidity and mortality.
>
> (P. 88)

Alongside complementary theoretical frameworks (Beckfield et al. 2015; Gkiouleka et al. 2018; Raphael and Bryant 2015), reviving and sharpening the focus on power with a theory of HPR offers a tool with which to further advance this important project.

## CONCLUSION

In their original article, Link and Phelan (1995:84) warned that preoccupation with intermediary factors can result in an "inadvertent downgrading of the issue which provided the initial impetus for research." The insights generated by the fundamental cause and political economy of health literatures effectively shifted attention toward social and political conditions that drive these intermediary factors. I argue that we should take the opportunity that HPR provides to recast social and political drivers as intermediary factors and focus

on power and other relational constructs that continue to expand our view of how society influences health. An added advantage is that studying modifiable relational factors that enable health inequalities to persist will likely improve the translation of medical sociology research into tangible public action and help to ameliorate some of health inequalities we seek to understand.

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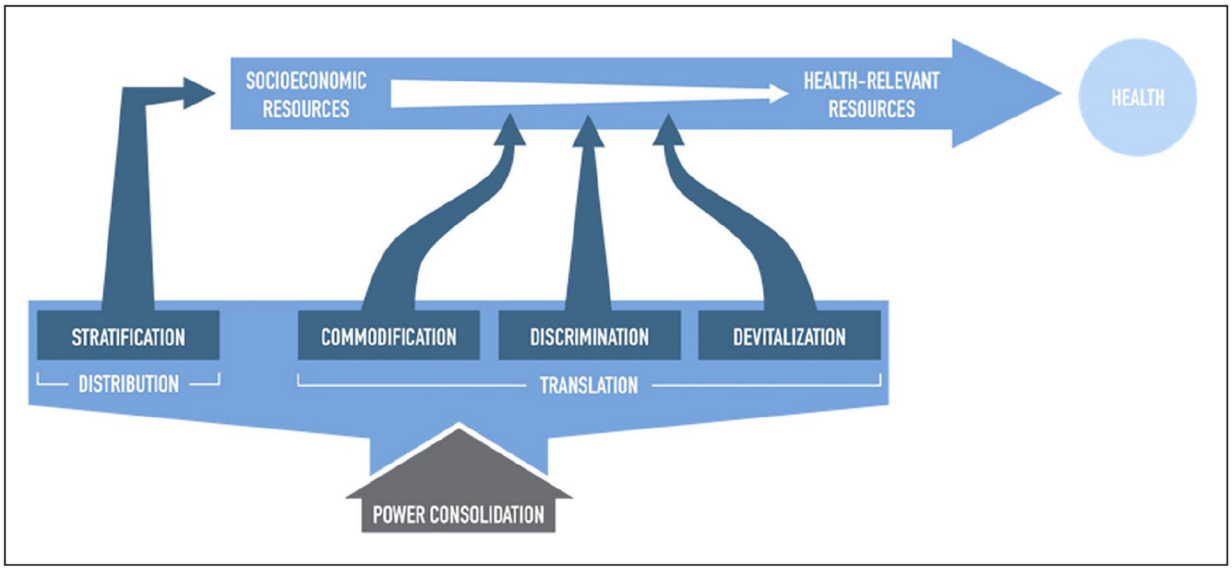


**Figure 1.**
A Conceptual Model Depicting Relationship among Core Concepts of Health Power Resources Theory.