Self-reported health and the social body

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Abstract
Since the strong predictive power of self-reported health (SRH) for prospective health and social outcomes has been established, researchers have been in a quest to build a theoretical understanding of this widely used health measure. Current literature based predominantly in a biomedical perspective asserts a linear relationship between physical conditions and perception of health. Discrepancies from this expected relationship are considered an important weakness of SRH. Systematic discrepancies between physical conditions and reporting of SRH have been documented across different socio-economic groups. Evidence identified for educational groups shows that for the same level of health status, lower-educated groups report poorer levels of perceived health. This raised doubts whether it is useful to use SRH to measure social inequalities in health within and between countries. To date, sociologists of health have not engaged in the discussion of reporting heterogeneity in SRH. After reviewing existing evidence, we contend that the discrepancy in SRH reporting across social groups argued to be a weakness of SRH as a health measure is a strength from a sociological perspective. SRH as a social measure of health is a better predictor than objective measures of health precisely because it captures the lived experience of the embodied agent.

Keywords Self-reported health · Reporting heterogeneity · Bourdieu · Capital interaction theory · Health inequalities

Introduction
Among health measures, self-reported health (SRH) has gained prominence in the last three decades in population health research. Studies have shown the ability of SRH to reflect individuals’ view of their past health, their assessment of current health and to predict future health status. Indeed, there is ample evidence that
SRH predicts new morbidity (Ferraro et al. 1997), decline in functional ability (Idler and Kasl 1991), recovery from illness (Wilcox et al. 1996) and health care utilization (Menec and Chipperfield 2001).

This evidence raises a quintessential question: What makes self-evaluation of health a stronger predictor of future morbidity and mortality than clinical markers of disease and disability (Picard et al. 2013)? There is an unequivocal consensus across research traditions that SRH is a complex multidimensional phenomenon that represents more than just objective health (Idler et al. 1999; Simon et al. 2005). In essence, several studies have shown that overall health reflects the distribution of resources in society (Wilkinson and Marmot 2003; Phelan et al. 2010). However, as Jylhä (2009) states hardly any measure has been more widely used and more poorly understood than SRH. Therefore, it remains to be theoretically addressed how the dynamic interaction of interdependent domains such as objective health, resources and capabilities shape the evaluation of health.

To unpack this dynamic interaction we will first start by examining the relationship between objective health status and the health evaluation process. The aim here is to explore if and what role could social conditions have in explaining this relationship. Secondly, we review the sources of different SHR reporting for the same health status by social groups in order to discern the effect of the mechanisms underpinning the evaluation of health. Lastly, we propose Bourdieu capital interaction theory to inform our understanding of the mechanisms that might explain why the same health status brings social groups to different experiences of the body in society and different reporting of SRH.

**SRH evaluation models**

Generally, components that are examined to varying degrees by current health evaluation models (Jylhä 2009; Knäuper and Turner 2003) can be grouped into (a) health status, (b) framework of evaluation and (c) interpretation of the SRH response scale as shown in Fig. 1.

Health status comprises somatic information that individuals take into account; such information includes medical diagnosis, functional status, and pain. Within these models, the framework of evaluation is grounded in cultural conceptions of health and social comparison processes (Morris 2018). The diversity of health definitions across societies is acknowledged in the cultural conception of health, whereas differences in the evaluation of health within the same society are suggested to derive from social comparison processes (psychosocial approach). These models rely extensively on a cognitive perspective to interpret the effect of social comparison processes in relation to health status and to the use of the SRH scale. For instance, the role of social position is considered in relation to differences among social groups in evaluating the importance of health-relevant information or different health expectations in reference to respective social comparison groups. As such, social comparison processes are expected to lead to different perceptions of health status and interpretations of the SRH scale by social position.
These models have been useful analytical tools to bridge the two understandings of SRH as a subjective assessment process and SHR as an indicator of objective health (Garbarski 2016). However, among the three components, primacy is given to health status while individual and social characteristics are limited to interpretative tools of health status. This approach indicates a persistent understanding that SRH is predominantly an indicator of objective health, while the role of individual and social characteristics in evaluations of the body is downplayed.

Indeed, limitations in these models arise if we want to explain differences in SRH reporting among objectively healthy individuals. Based on these models, for individuals with similar health conditions, inequalities can arise by subjecting these conditions to different individual frameworks of evaluation. However, if two people are equally healthy (no objective health conditions), individual and social characteristics—which Jylhä (2009) refers to as “non-health” factors, such as social position, standard of living and social support—should not interfere in the evaluation of health. In other words, the evaluative framework would become redundant in the relation between health status (of healthy individuals) and SRH rating. Nevertheless, empirical evidence shows that not all healthy individuals report good health or similar levels of SRH (Cott et al. 1999). This suggests that the evaluation framework itself has an effect on SRH reporting that is independent of the effect of health status. Therefore, in order to understand how health evaluation emerges, it is important not only to know the health status of individuals but also to develop a more comprehensive understanding of what constitutes the evaluation framework.

It is similarly difficult to argue about the primacy of health status versus the evaluation process in cases when respondents presenting a poor health status rate their health as good (Krause and Jay 1994). In disability studies, this is commonly referred to as the “disability paradox” (Albrecht and Devlieger 1999). In this scenario, the evaluation process itself seems to counteract the effect of the cognition and knowledge of health status in reporting SRH. How does the evaluation process translate poor physical health status into good SRH? For Drum et al.
an objective assessment of health (measured as the number of healthy days) presents an incomplete picture of overall health. The authors suggest that “…the underlying process of assessing SRH may differ between people with and without disabilities”. In the former group, it seems that the social conditions of experiencing health become even more prominent (Idler et al. 1999). These limitations arising from the existing conceptualization of SRH point to the need to reconsider differences in SRH evaluation processes between different morbidity levels, especially from a social position perspective.

To overcome these limitations, we must include in the SRH evaluation process not only individuals’ social positions but also the social conditions in which they attain and maintain these positions. Existing models that combine cognitive and epidemiological perspectives acknowledge the role of social conditions in evaluation frameworks, but these models view this role as limited to shaping individuals’ cognitive abilities and determining the reference groups to which they compare themselves. This narrow perspective on social conditions overlooks the effect of material and non-material resources on the experience of the body. Indeed, most research examining social position differences in SRH assessment has focused on the two extreme ends of the SRH evaluation model—more concretely, how the evaluation framework shapes the understanding of health status as a physical experience and the understanding of the SRH scale.

In the next section, we synthesize the current empirical evidence from different disciplines on the sources of SRH reporting differences among social positions. In reviewing this literature, we focus on differences among educational groups. Education plays a crucial role in the social stratification of any modern society. Generally, education is attained in early adulthood and is considered the most stable marker of social position. For instance, compared to occupation or income, education level is much more stable to personal and societal changes.

Education is also an important determinant of both income and occupation (Lahelma 2001). The strength of education to predict and represent the social position of individuals (social destination) depends on their social origin and on the design and integration of the educational system and related modes of labour markets (Müller 2005). Social origin affects not only educational attainment but it has a direct effect on social destination independently of own education which might come in the form of capabilities and strategies acquired during childhood (i.e. communication skills, aspirations) and through direct access to social networks and inheritance (Bernardi and Ballarino 2016). There is also a pronounced variety across countries among educational and labour market institutions, and longitudinal studies have shown that educational expansion has resulted in cross-national variation in respect to how and to what extent educational attainment influences social destination (Ryan 2001; Kogan and Unt 2005). Although the expansion of education has slightly decreased the returns of education, nevertheless longitudinal studies have demonstrate the signalling power of educational credentials in the transition to work, class formation and entry to elite positions (Müller and Gangl 2003; Roberts 2010; Wakeling and Savage 2015; Bernardi and Ballarino 2016).
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Reporting heterogeneity in SRH by social position

Since the late 1990s, social epidemiologists and, to a larger extent, health economists have been concerned with the relation between objective health and SRH reporting. Discrepancies between SRH and underlying true health are said to be due to differences in reporting behaviour. Reporting behaviour is influenced by components of evaluation frameworks of sub-population groups (Lindeboom and Van Doorslaer 2004; Layes et al. 2012), leading to what is commonly referred to as reporting heterogeneity. Simply put, reporting heterogeneity is measured as the variation in reported measures across population groups for a given level of true health (Shmueli 2003). Together, these two research traditions have identified three sources of reporting heterogeneity: (a) conceptualization of health, (b) representation of disease, and (c) interpretation of thresholds in SRH response categories.

Conceptualization of health

The first source of reporting heterogeneity essentially examines whether different populations and sub-groups of populations have systematically different conceptualizations of health. Several studies have reported that a broader definition of health has been adopted in Western societies since the early 1990s (Fylkesnes and Førde 1992; Smith et al. 1994). These findings have prompted concern regarding whether these variations in the definition of health vary systematically across social positions and are reflected in systematic reporting bias (Lindeboom and Van Doorslaer 2004; Groot 2000; Kerkhofs and Lindeboom 1995; Sadana et al. 2002).

Initially, qualitative studies investigated which health domains individuals use to assess their health. These studies identified physical dimensions of health as the core of SRH. Nonetheless, in the vast majority of cases, respondents tend to go beyond physical health consideration when evaluating their overall health. Across the qualitative studies carried out in the 1990s and early 2000s, the physical, functional, coping, social, well-being and behavioural dimensions were the most common health dimensions elicited from respondents. Several of these qualitative studies that investigated variations in social positions did not find significant differences among educational groups in the range of criteria used to evaluate their overall health (Idler et al. 1999; Krause and Jay 1994).

Representation of disease

The second source of reporting heterogeneity is related to the representation of disease. This type of heterogeneity can occur if population sub-groups have systematically different (a) knowledge, (b) inclinations to report, and (c) perceptions of the severity of the disease conditions.

To test patients’ knowledge of disease, studies have examined the agreement between self-reports and criterion standards such as medical and hospital records, GP interviews and physical examinations. Two main findings have garnered large
support from this body of literature. First, individuals tend to underreport health
conditions in self-administered questionnaires (Kriegsman et al. 1996; Metzger
et al. 2002; Singh 2009; Englert et al. 2010). Second, the overall level of agree-
ment between self-reports and medical sources depends on the nature of the disease.
These studies conclude that patient-administered questionnaires may be a highly
reliable source of information on well-defined chronic diseases, such as diabetes
mellitus (Simpson et al. 2004; Hansen et al. 2014; Heliövaara et al. 1993; Berg-
mann et al. 2004), (Midthjell et al. 1992), stroke (Kriegsman et al. 1996; Okura
et al. 2004; Van der Heyden et al. 2014), chronic pulmonary diseases (Singh 2009;
Hansen et al. 2014; Merkin et al. 2007; Metzger et al. 2002), hypertension (Gold-
man et al. 2003; Vargas et al. 1997; Englert et al. 2010), and thyroid dysfunction
(Bergmann et al. 2004; Hansen et al. 2014), but are less reliable for diseases with
non-established diagnostic criteria and a fluctuating course (Kriegsman et al. 1996;
van den Akker et al. 2015; Haapanen et al. 1997). Remarkably, although the under-
reporting of conditions decreases with multimorbidity (Van der Heyden et al. 2014)
(Hansen et al. 2014), total agreement also decreases (Okura et al. 2004; Baumeister
et al. 2010) because of an increase in overreporting (Englert et al. 2010; Okura et
al. 2004), especially by individuals in lower social positions (Baumeister et al. 2010).

With some exceptions (Metzger et al. 2002; Bergmann et al. 2004; Merkin et al.
2007), studies generally find reporting accuracy to increase with education level
for several conditions (Kriegsman et al. 1996) (Singh 2009; Simpson et al. 2004;
Okura et al. 2004; Hansen et al. 2014). Nevertheless, overall agreement/accuracy
reveals little about the overreporting (false positive) and underreporting (false nega-
tive) patterns of educational groups. Most of these studies find a lower overall agree-
ment for individuals with lower education largely due to overreporting (false posi-
tive) of conditions such as arthritis, arthrosis, diabetes, cholesterol and heart disease
(Kriegsman et al. 1996; Heliövaara et al. 1993; Baumeister et al. 2010; Baker et al.
2004; Corser et al. 2008), (Espelt et al. 2012). Exceptions to this pattern are cancer
and hypertension, where lower-educated groups tend to underreport (false negative)
(Goldman et al. 2003; Vargas et al. 1997; Schrijvers et al. 1994; Manjer et al. 2004).
When identified, disagreement in reporting for higher-educated groups derives from
underreporting of heart- and pain-related conditions (Haapanen et al. 1997; Corser
et al. 2008). For higher-educated groups, cancer diagnosis represents an exception
for this pattern, as there is a tendency for overreporting cancer (Corser et al. 2008;
Manjer et al. 2004).

A temporal dimension seems to pervade the evidence on social inequalities in
over- or underreporting patterns. In the Netherlands, Mackenbach et al. (1996) used
data from 1991 in Eindhoven and demonstrated higher underreporting levels for
heart disease, lung disease and diabetes for lower-educated groups. A more recent
study of the same area, employing data from 2010, did not show educational dif-
fferences either in under- or overreporting of these same conditions (van den Akker
et al. 2015).

Apart from the variation in the knowledge of health conditions, educational dif-
fferences in SRH for the same reported level of objective health can result from an
inclination to report health conditions. Evidence on additional reporting of health
conditions following a prompt finds that an individual’s educational attainment
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does not obstruct the presentation of health problems to health specialists (Macintyre et al. 2005; Westert et al. 2005). There is no definitive agreement concerning whether medical records should be considered the gold standard. However, the observed absence of educational inequalities in reported conditions sets a reliable baseline to compare patterns of over- and underreporting in health questionnaires.

Based on the observed reporting patterns, studies using self-reported morbidity to examine educational heterogeneity in SRH may not compare individuals with similar levels of morbidity. It is likely that between higher-educated and lower-educated groups reporting only one health condition, the former might underreport and the latter might overreport. This implies that in terms of health status, we might be comparing a lower-educated person who has objectively good physical health with a higher-educated person who has objectively poorer physical health. Although lower-educated groups may be in objectively better physical health on average (for each level of self-reported morbidity), studies on SRH heterogeneity show that they consistently report worse levels of self-perceived health than higher-educated groups.

The perception of disease severity is another potential source of SRH heterogeneity within disease representation. Anchoring vignettes have been used to disentangle differences in ‘objective’ health from differences in the perceived severity of objective health conditions by social position. Vignettes present survey respondents with hypothetical individuals with fixed levels of health, and any difference in health ratings of these fictitious cases is then (at least theoretically) attributed to reporting heterogeneity, which is dependent on respondents’ individual characteristics (Dowd and Todd 2011).

Studies using vignettes have closely examined systematic socio-economic cut-off shifts in the threshold levels of severity in domain-specific self-reports such as pain, mobility, sleep problems, breathing problems, and depression. Across these studies, there is consistent evidence that higher-educated groups from different world regions report higher levels of severity, distress and difficulty compared to lower-educated groups for vignettes presenting the same level of health (Dowd and Todd 2011; Bago d’Uva et al. 2008b; Molina 2016). With respect to SRH evaluation, a higher level of perceived disease severity is expected to translate into poorer perceived health. Nevertheless, higher-educated groups continue to perceive their health as better than lower-educated groups, despite their propensity to rate the same health status as more severe. Another lesson from these studies is that the severity of the health conditions presented in vignettes is not understood equivalently cross-nationally (Hirve et al. 2013; Bago d’Uva et al. 2008a). Such cross-national variations lend empirical validity to cultural differences in the definition of health.

SRH thresholds

Regarding the third source of reporting heterogeneity, the literature has explored whether social positions use the threshold levels of the SRH response categories differently. Two methods have been applied to test differences in the SRH threshold. The first method uses vignettes. In the few studies using vignettes to investigate reporting heterogeneity in SRH scales, higher-educated individuals seem to report
consistently better overall health when presented with the same health vignettes (Grol-Prokopczyk et al. 2011; Xu and Xie 2017). Interestingly, studies controlling for the impact of respondents’ morbidity in evaluating vignettes, which is understood as a proxy measure of familiarity/adaptation with health conditions, found no or limited evidence that familiarity leads respondents to rate vignettes as healthier (Hinz et al. 2016; Xu and Xie 2017; Grol-Prokopczyk et al. 2015).

The second method uses objective health status, measured by self-reported clinical health conditions, symptoms, pain or more complex constructs of health indexes, to measure differences in the understanding of the SRH scale among individuals with ‘identical health’. With respect to education, studies conducted on Canadian (Lindeboom and Van Doorslaer 2004; Kerkhofs and Lindeboom 1995), British (Hernández-Quevedo et al. 2004), Israeli (Shmueli 2003) and French (Etilé and Milcent 2006) data do not find differential shifts in SRH cut-off points. However, some of these studies do find a parallel shift of all SRH thresholds (Hernández-Quevedo et al. 2004; Etilé and Milcent 2006). This parallel shift, which is the same as those reported in vignette studies on SRH (Grol-Prokopczyk et al. 2011; Xu and Xie 2017), points toward a systematically better health evaluation among higher-educated individuals for the same level of objective health.

In summary, qualitative and quantitative studies exploring variations in reporting behaviour between educational groups provide valuable insights into the translation process of objective health into perceived health. Studies reviewed in this section (results visually summarized in Fig. 2) did not identify differences among educational groups in the type of health information used for reporting SRH. However, there seems to be a consistent overestimation of the severity of the same health conditions by higher-educated groups compared to lower-educated groups. Remarkably, this overestimation of severity by the former does not translate health profiles into poorer SRH ratings. In contrast, positive parallel shifts in all SRH thresholds are typical for higher-educated individuals. Positive parallel shifts in all SRH thresholds were also observed in studies using self-reported morbidity, where we would expect higher-educated individuals to have underreported their conditions and lower-educated individuals to have overreported. In other words, higher-educated individuals
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seem to underreport health conditions on average and to rate the same health conditions as more severe, but they also seem to translate their health status into better perceived health compared to lower-educated individuals.

At the foundation of the reviewed literature in this section lies a one-to-one relationship between disease and SRH, showing that a predominantly biomedical conception of SRH has informed the reporting heterogeneity discussion. To put this into perspective, one of the main concerns is that if policy interventions aiming to improve health employ SRH as a health outcome but do not account for differences in SRH reporting by social position, they might be misled to overinvest in lower social positions. This is because once reporting heterogeneity is accounted for, the true health of individuals in lower social positions declines slower than their SRH. However, if SRH were a measure that captured only or mainly underlying true health, we would expect poorer health reporting from higher-educated individuals or better reporting from lower-educated individuals. In fact, the absence of such empirical patterns points to a disproportional impact of the mechanisms at play in the evaluative framework. These mechanisms are able to devalue the effect of poor objective health on perceived health for the socially advantaged and to devalue the effect of good objective health on perceived health for the socially disadvantaged.

**Reporting heterogeneity of SRH in sociology**

Notably, the conceptualization of SRH primarily as a health status measure is driven by the quest for its validity as a population health measure. However, above and beyond its role as a health measure, the perception of health retains a strong salutogenic or pathogenetic effect on the body (Chipperfield 1993; Stenholm et al. 2016). Practically speaking, if two individuals with the same condition perceive their health differently, they will have different health and social trajectories. Indeed, self-reports of general health predict not only future health and healthcare needs but also inequalities in integration in the labour market (Chirikos 1993; Cai 2010), earnings (Fukui and Iwamoto 2003), sickness-related absences (Eriksson et al. 2008) and early retirement (García-Gómez 2011). Overlooking these social processes that affect and are affected by SRH also means ignoring what Shmueli (2002) refers to as the social determinants of reporting heterogeneity.

Sociologists of health have thus far not engaged in discussions of reporting heterogeneity in SRH, which may derive from the fact that the very same mechanisms affect both objective and subjective health (Scambler et al. 2010; Bradby 2012). This line of argumentation neglects the context-bound synergetic relation between individuals as objects (physical self) and as subjects (embodiment of self) (Leventhal et al. 1999). To illustrate, nutrition is a mechanism affecting objective health (obesity). At the same time, subjective and objective lack of control over this mechanism affects the perception of health (Mulder et al. 2011; Mirowsky and Ross 1998). Nonetheless, the impact of nutrition is intensified both objectively and subjectively when a specific disease requires changes in nutrition. Individuals’ life choices, such as health behaviours, depend on their social position. In terms of nutrition, lower-educated groups are less likely to have been exposed to and to have accumulated
experience with healthy diets (Cockerham 2005, 2007). Therefore, a chronic condition that requires changing to a strict diet exposes both predisposition and contextual social vulnerabilities (financial constraints, access to fresh food markets) to adopting such a diet. This dynamic interaction turns nutrition into a more salient factor in the perception of health while simultaneously leading to a poorer objective health status. Qualitative studies have provided rich descriptions of how the relative intrusiveness of diseases can disrupt personal and social biographies of individuals and force new relationships between the physical body, self-conception and the environment, thus also recalibrating the perception of health (Charmaz 1993; Bury 1982; Ware 1999).

Social theorists have struggled to conceptualize the relationship between individuals’ self-conception of their bodies, their physical bodies and their social context in their experience of health and illness. Empirical evidence has shown that health and the perception of health are independently associated with each of these social processes (Thoits 2013; Demakakos et al. 2007; Borrell et al. 2009; Lundberg et al. 2007; Siegel 2002). Nevertheless, the combined effect of self-conception, the body in its physical sense and of the social context on health is greater than the sum of its parts. The main obstacle in theorizing may rest in the dialectic nature of these social processes in time and space (Shilling 2012), and any theoretical paradigm favouring one over the other needs to negotiate their determinism (Scambler 2012).

In efforts to break this continuing cycle, theoretical constructs from different disciplines, such as the biopsychosocial (BPS) model and the social determinant of health (SDH) model, have placed the physical body at the centre of analysis in relation to concentric social, material, psychological and institutional factors. Such approaches have been criticized for presenting mechanistic boundaries and a static view of individuals’ biological, psychological and contextual experiences of health in society (Freund 1990; Hatala 2012).

A similar criticism applies to the conceptualization of SRH as a health measure of the physical body developed in SRH evaluation models. Although the assessment of SRH is thought to consider human beings in their entirety (Benyamini 2011), the approach to SRH evaluation reflects the pervasive dual conception of the body that is common in several sociological theories (Bradby 2012). In the objective part of SRH, naturalist views such as the biomedical paradigm tend to reduce the body to its biology, leaving individual agency and social structure at the margins. The subjective part of SRH, on the other hand, resembles social constructivist approaches that conceive of the body as interpreted via social forces and whose meaning ultimately resides in the mind. As Shilling (2012) states, these essentialist understandings of the relationships between society and social bodies and between society and biological bodies leaves the body as an emerging agent absent as a focus of investigation. Indeed, by confining the role of individual and social characteristics to cognitive factors in the evaluation of the physical status of the body, existing SRH models have narrowed the role of the social agent to perceive the body only as an object-like physiological system. This narrow view of SRH has cascaded down into socio-economic studies of reporting heterogeneity that have solidified this strict division between physical body and the social body (Nettleton 2010). Studies of SRH heterogeneity have avoided examining the relationship between the social and physical
bodies in health perception, thus overlooking the experience of the embodied social agent in society (Cromby 2004).

When individuals evaluate their health, they evaluate their bodies. According to Shilling (2012), the body “is best conceptualized as an unfinished biological and social phenomenon possessed of its own emergent properties...that can be transformed, within a certain limit, as a result of its participation in society”. These processes of transformation and continuity are embodied in the body physically (Krieger 2005), in the way that individuals view their bodies (Crossley 1996; Bourdieu 2013) and in individuals’ capabilities of deploying their body in society (Abel and Frohlich 2012; Fox 2011). Therefore, in referring to the embodiment of the social agent, we refer to the intertwined life course development of the physical, view of and capabilities of the body. If we adhere to this multidimensional conception of the body, we can also move away from understanding the health of the body from a purely biomedical perspective and apply the definition of health proposed by Fox (2011), namely, “the proliferation of a body’s capacity to affect and be affected”. For a body experiencing a disease, its health can be understood as the body’s widened capacities to make, resist and transform relations with its physical and social context (Fox 2011).

Therefore, in evaluating the health of their body, individuals assess their body’s accumulated experience of biological and social changes in society (Berthelot 1991). These changes can affect individuals’ perception of their health independently and in combination. The social circumstances under which social groups experience changes in their body determine the magnitude and interaction of these effects in their perception of health. Based on this perspective, it is possible to understand SRH as a social measure of health by integrating the evaluation of the interrelated biological and social bodies to better comprehend the dynamics of health inequalities.

With its integrative and dynamic nature (Benyamini 2011), the usefulness of SRH rests in its ability to reflect the embodiment of the social agent situated in the social context; in other words, the reporting of SRH is a cultural-contextual reflexive assessment of inextricably linked social, psychological and biological processes. According to Freund (2011), instead of attempting to establish a hierarchy of these processes in embodiment, we should pay attention to how the conjoint physical and social body is embodied in different social circumstances. How we experience our body is invariably social, and social position is a critical differentiating characteristic that individuals internalize in their social and institutional interactions (Nettleton 2010; Milkie et al. 2014).

**Capital interaction theory and evaluation of the body**

To understand how social inequalities in health arise and persist, it might be useful to depart from Bourdieu’s theory of capital interaction to address how the dynamic interaction of interdependent domains such as objective health, resources and capabilities shape differential health and social consequences across social positions. Similar to other contemporary sociologists (Giddens 1984), Bourdieu aimed to
reconcile the two main opposing approaches to social science, namely, the structur-
alist approach, which views social processes as determined by social structures, and
the individualist approach, which highlights the importance of individuals’ agency
(Navarro 2006). Bourdieu employed three key concepts to reconcile social structure
and individuals’ agency: habitus, capital and field. According to Bourdieu, individu-
als engage in a social struggle to acquire, maintain and expand valuable material
and non-material resources, which are referred to as capitals. These struggles for
capitals take place in different fields of the social world, and different capitals are
influential in structuring different fields. Therefore, each field can be conceived as
a system of social stratification that places individuals/agents in different positions
related to processes of accumulation and conversion of the most prominent capitals
in the respective field (Savage et al. 2005). The sum of total fields present in a soci-
ety constitutes the social space of the struggle for every form of capital.

According to Bourdieu and Wacquant (1992), acknowledging that “capital can
take a variety of forms is indispensable to explain the structure and dynamics of
differentiated societies”. In The Forms of Capital, Bourdieu (1986) differentiates
between four main types of capital. First, economic capital is directly convertible
into money and material assets. Second, cultural capital can exist in three forms:
in embodied disposition (habitus), in an objectified state as cultural goods and in
an institutionalized state, the most prominent of which is educational qualifications.
Third, social capital represents material and non-material resources that individu-
als can mobilize from mutual recognition as members of a group. Fourth, symbolic
capital is the form each capital can assume when it is recognized as legitimate. The
composition and volume of these capitals define the relative position of agents and
their chances of profiting in the social space (Bourdieu 1985).

Cultural capital as an embodied disposition or habitus is the key concept devel-
oped by Bourdieu to integrate structure and agency. The various definitions of habi-
tus aim to capture the formation, continuity and change of individuals’ embodiment,
agency and social position trajectory in the social space (Reay 2004). Habitus thus
refers to “those internalized structures, dispositions, tendencies, habits, ways of act-
ing, that are both individualistic and yet typical of one’s social groups” (Oliver and
O’Reilly 2010). Often criticized as deterministic (Lechte 1997; Williams 1995) the
purpose of the habitus is to highlight not only that the social world is inscribed in
the body but also that the deployment of the body in social and cultural practices
shapes individuals’ dispositions, actions and access to capitals (Bourdieu and Nice
1977).

One of the deepest dispositions of the habitus is revealed in the relation of
individuals to their bodies (Bourdieu 2013). In studying the body as a social phe-
nomenon, Bourdieu refers to physical capital as the acquisition of habits of body
comportment through socialization in sports, patterns of food consumption and
etiquette (Bourdieu 2013). Members of social groups, in response to conditions of
living, can acquire and develop physical capital as a resource to distinguish or to
instrumentalize their body. Consequently, how individuals view and develop their
body is reflective of the social position in which they are born and raised. For
individuals brought up in lower social positions, the function rather than the state
of the body is important to meet the demands of material necessity. Therefore,
for people in lower social positions, the value of the body rests in its ability to be instrumentalized for acquiring and expanding other forms of capitals. In contrast, for individuals with a higher social position, the state of the body is more relevant because they view the body as an end in itself (Bourdieu 2013; Shilling 2012; Weininger 2002).

Viewing the body as a means or as an end can give rise to important distinctions in the evaluation of the body as a continuum of biological and social phenomena. Bourdieu’s emphasis on the body as a social phenomenon is relevant for comparing educational groups with a healthy body in the physical sense because their evaluation of the body emphasizes its social part. When individuals from lower educational groups face constraints embedded in the social structure in instrumentalizing their body to maintain the same conditions (homeostasis) or increase the ‘distance from necessity’, they will experience the vulnerability of their body as a social phenomenon and perceive their body as suboptimal. The social struggle for an adequate level of capitals faced by those in lower educational groups in different societies varies with the social-political organization of these societies (Turner and Avison 2003; Elstad 1998). In contrast, individuals in higher educational groups with a healthy body in the physical sense and with more accumulation of social advantages are more likely to develop a positive evaluation of their body.

The social differences in the experience of the body as a continuum of biological and social phenomena become more evident when individuals develop chronic conditions. With few exceptions (Shilling 1991, 2012), little attention has been paid to physical capital as a prerequisite for participation in work, education and social activities. When the embodied agent is experiencing a chronic condition, the different conceptions of the body across social positions become even more salient in the evaluation of the body. Among lower educational groups, there is a double burden in maintaining homeostasis because the instrument itself to achieve capitals (the body) can reduce the ‘distance to necessity’ due to the inability to participate in work or social activities. Therefore, the persistence of health-damaging exposures and their eventual proliferation because of illness tend to increase the vulnerability of individuals in lower educational groups in maintaining a stable evaluation of their body. On the other hand, higher-educated individuals experiencing a chronic condition mobilize other forms of capital, creating a status shield that both preserves the distance from necessity and reinforces the attention to the body as a project (Cockerham 2007). This differential capability to change exposures due to a combination of material advantages and dispositions enables those in higher education group to preserve a more stable evaluation of their body (Bailis et al. 2003).

Therefore, the magnitude of vulnerability in the social space when experiencing similar levels of morbidity is a function of the differential capability between social groups—such as educational groups—to achieve, maintain, reconfigure the composition or increase the total volume of capitals based on their respective habitus and the embedded resources in their social position in the social space. As the possibility to achieve and maintain necessary capitals for promoting a healthy social and physical body vary by social position, we expect that heterogeneity in SRH reporting among educational groups to starts from objectively healthy individuals and to follow differences in accumulation of social advantages and disadvantages.
Conclusion

By expanding the discussion on reporting heterogeneity by educational level beyond differences in conceptualization of health, representation of disease and interpretation of SRH response categories we have drawn attention to social sources of SRH differences and to the conceptualization of SRH as a social measure of health. We have highlighted the importance of the social position and resources in which individuals experience their intertwined social and biological body and the capabilities they can deploy to maintain their view on the body. The constraining and enabling power to acquire resources by different social positions are distinctive to different social structures. Therefore, we would expect countries to have different magnitude of SRH differences by social position for same level of health. The magnitude of SRH differences among healthy social groups reproduced in the continues social struggle for resources and the level of social protection offered by different social structures will play a pivotal role in determining the divergent health trajectories of agents from different social positions whose physical capital is threaten by chronic conditions during the life course. In other words, countries with lower social protection and labour structure and regulations that tend to increase the insecurity of lower social groups will lead these groups to continuously compromise their health in the perpetual social struggle to maintain distance from necessity contributing thus to the increase and persistence of social inequalities in health. Inequalities will continue to persist also in more generous countries if rising levels of health conditions are better accommodated by social structures for higher social groups.

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**Publisher’s Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

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