As

FORUM ARTICLE

Precarity and the assumption of rising insecurity in later life: a critique

Chris Gilleard1* and Paul Higgs1

¹Division of Psychiatry, UCL Faculty of Brain Sciences, London, UK

(Accepted 13 March 2019; first published online 7 May 2019)

Abstract

In recent years, several authors have drawn attention to signs of growing inequalities in the ageing populations of the developed economies. Such formulations have employed the concept of precariousness to suggest that a 'new' precarity has emerged in old age. Questioning this position and drawing on data reported over the last two decades on income and health inequalities between and within retired and working-age households, the present paper argues that evidence of this 'precarity' is speculative at most and relates more to imagined futures than to empirically observed trends in the present. The ageing of ageing societies – that is the growing agedness of the older population – might imply an increase in precarity or vulnerability at older ages, but this is not a result of changes in the underlying economic and social relations of society. Instead, we would contend that it is the corporeal consequences of living longer. By conflating the various meanings of 'precarity' there is a corresponding danger that the very real changes brought about by population ageing will be underplayed, which may be to the detriment of the most vulnerable. The idea of a new precarity in later life may thus not serve the ends to which it is intended.

Keywords: precarity; later life; inequalities; insecurity; vulnerability

Introduction

The idea that large parts of contemporary society can be defined by the idea of 'precarity' has become both popular and widespread. Drawing on sources as diverse as the beatified Catholic social activist Dorothy Day (1952), the philosopher and gender theorist Judith Butler (2004), sociologists like Bryan Turner (2006) and the development economist Guy Standing (2011), precarity has been used to describe the conditions of large sections of the population in contemporary society. It is inflected with at least two quite distinct points of reference, however, one emphasising the emergence of a new social category or class, whose status is determined by various forms of insecurity brought about by changes in the economy, the other a state or condition of vulnerability that has acquired a particular salience in the context of the perceived hollowing out of the security provided by the welfare

© Cambridge University Press 2019

^{*}Corresponding author. Email: c.gilleard@ucl.ac.uk

state (Millar, 2017). The reach of such precariousness encompasses more than those who are conventionally thought to be victims of inequality, incorporating a wide range of social groups whose disparate forms and sources of vulnerability are gathered together by a common experience, state or status of 'precarity'. One consequence is that the very complexity of the term 'makes it difficult to empirically verify a trend toward increasing precarity ... call[ing] into question the coherence of the precariat as a concept' (Frase, 2013: 12).

Guy Standing, the economist who has perhaps done most to draw attention to the idea of a newly formed 'precariat' himself extended this category to include older people (Standing, 2011). His point of departure has since been taken up by a number of writers claiming a new precarity for later life (Ginn, 2013; Biggs, 2014; Allison, 2015; Colic-Peisker *et al.*, 2015; Grenier *et al.*, 2017*a*, 2017*b*). While such claims imply a growing insecurity within the expanding social space of later life, the data upon which such assumptions are framed are rarely spelled out. As Frase has noted, much hinges on the meaning of terms such as 'rising inequality', 'increasing vulnerability' and a 'new precarity'. Given the serious criticisms surrounding Standing's original model of precarity and the concept of a precariat (Frase, 2013; Wright, 2016), this paper advances a further more-focused critique on the extension of the term to describe the social location of later life in contemporary society.

What is precarity and who are the precarious?

The term 'precarity' can be understood to apply to ageing and old age in ways that blend its meanings as a condition, category or experience (Millar, 2017). Within one framework, it can be identified with the insecurity (or vulnerability) arising from the growth of an over-65 population and the consequent rising levels of age-associated morbidity within society. This argument states, in effect, that as older people are growing ever-more aged, the frailer and sicker they are becoming, creating new dilemmas of increased precarity for state and society. Alternatively, it can be construed as an increase in economic vulnerability, brought about by rising levels of income or wealth inequality within the older population, or by increases in the proportion of older people experiencing income and/or expenditure poverty and social hardship. Finally, it could be understood as referring to the increased social exclusion or marginality in which people in later life find themselves, whether as potential citizens, consumers or as 'co-constructors' of culture, economy and society.

These different interpretations illustrate how easily the term can serve as a rubber sheet stretchable at will to cover more- or less-extensive segments of the older population. As a consequence, any attempt to supply evidence in favour of, or in opposition to, the working assumption of 'increasing precarity' in later life can be countered by arguing that a different version is meant by precarity, with different points of reference and different forms of evidence from that to which the critique is directed. Given this elasticity, the present paper seeks to examine the viability of the term applied to changes (for the worse) in the conditions of later life by reviewing evidence of change in the economic, health and social circumstances of older people in contemporary society. If, of course, the advocates of 'precarious ageing'

merely wish to draw attention to the 'universal' vulnerability associated with life, or with later life, or with growing older, then it becomes no more than a matter of interpretation whether one calls this 'frailty', 'precarity' or 'vulnerability'. This does not seem to be the case, however. Those writing about precarity in later life conceive it as being 'a lens to understand *new and sustained forms of insecurity* that affect later life' (Grenier and Phillipson, 2018: S15, italics added).

In economic terms, 'increasing' precarity among older people might arise because the division between the position of people of working and post-working age is becoming larger, placing the latter group at greater risk of hardship and immiseration, even if social policies are creating greater equality within the retired population. Alternatively, despite growing equality between the position of people of working age and people of retirement age, there may be increasing inequality within the retired population in wealth, income and/or spending power, with a growing divide (or polarisation) between marginalised and comfortably off older people. Alternatively, increasing precarity might mean increasing economic vulnerability, with more older people than before hovering on the edges of whatever economic comfort zone that ensures a reasonable material quality of life, *i.e.* in the numbers living on the margins of poverty.

This economic framing of precarity as outlined particularly by Guy Standing's writings may not be the one intended. It may instead be that outlined by Judith Butler, whose writings on precarity foreground the ontological precariousness of life itself (Butler, 2004, 2012). Drawing upon the writings of Arendt and Levinas, Butler argues that the very 'exposure of the body points to its precariousness' (Butler, 2012: 141). Elsewhere she rephrases this as the body's 'vulnerability to injury and destruction' (Butler, 2012: 147). Such universal precariousness, she argues, behoves us to respond to others' suffering, a call she perceives as more urgent now as we are increasingly exposed to the injuries of others (migrants, refugees and victims of civil conflict). Framed within this Butlerian discourse, the 'increasing' precarity of later life might mean an increasing vulnerability to harm, illness and death, contrasting the relative security or invulnerability of some such as older welloff people, older people in the secured societies of the West, or the 'hale and hearty' segment of the older population with more evidently vulnerable, infirm older people among the poor, in less-developed economies or among the unfit, unhealthy population. In this sense, precariousness has its point of reference in bodies more than in bank accounts, and the 'increase' in late-life precarity 'as it plays out across a greater number of older people's lives' (Grenier and Phillipson, 2018: S17) should be evidenced by increases in the relative size of the older vulnerable population.

What kinds of evidence might support or refute this Butler-inspired framing of late-life 'precarity'? Given Butler's emphasis upon the body and its vulnerability to harm, increasing precarity might be interpreted as more older people suffering or coming to harm than was the case in the past, that rates of frailty, illness and morbidity have risen, or that the gap between the fit and the frail, the well and the badly situated, has grown wider. Alternatively, adopting Butler's more global view, it could be that the security in later life enjoyed by societies in the Western developed world stands in more vivid contrast with the precarity of later life elsewhere, where the precarity of precarious lives is more evident, *e.g.* by greater reference to reports of the neglect, infirmity, hurt and suffering among the older population in the

world's less-developed economies. Evidence for or against these various interpretations might consist of changing rates of dependency and infirmity amongst people aged over 65, such as was first predicted in Gruenberg's (1977) article on the 'failures of success', or by enhanced late-life mortality arising from falling standards of care and treatment, or by greater disparities (health inequalities) within the older population. While reference might be made to a growing contrast between the 'old' precarity which millions of older people in the developing world face and the comfort of later life now enjoyed in the developed world, such a standpoint does not constitute an argument for any growing precarity within contemporary European and North American societies. Hence this particular version of a Butlerian model of 'growing precarity' will not be pursued further.

Given such a range of interpretive options, we do not intend this paper to serve primarily as a review of studies of changing rates of economic inequality, or rates of frailty, infirmity or vulnerability in later life. Our aim is to put forward a critical perspective on precarity and its application as something 'new' to later life in the developed economies of the contemporary world. In so doing we will focus upon the literature on changes in income, health and infirmity in later life, as evidenced in the societies of North America and Europe, where most of the literature on precarious ageing has emerged. We do not intend this to be an exhaustive sampling, even within this geographical range, since the parameters we have chosen to examine are by no means the only, or perhaps not even the key frameworks by which the question can be examined. We have reported studies based on pragmatic grounds whose indicators of economic or corporeal insecurity or inequality can be framed as at least potential proxies by which assumptions concerning a new or increasing precarity in later life can be examined. Our intention is to suggest possible interpretations of precarity, to explore some of these in more detail, and to bring those interpretations and explorations together into a measured critique of the notion that later life can be described as having become increasingly precarious.

Our standpoint from the outset is that 'precarity' is no more than a re-working (or re-wording) of a common, almost universal trope that life is never secure, and that with age comes ever-greater insecurity, variability and risk of harm, illness and death. We have no serious quarrel with this kind of perspective. As societies realise ageing and agedness in more of their members' lives, it makes sense that this riskiness conferred by age is more prevalent and consequently more needs to be done to render later life less 'precarious', preventing as far as possible such harms as homelessness, hunger, infirmity, loneliness, pain and suffering. Such intentions deserve not so much new perspectives or new policies as wider dissemination and wider levels of support for those in need. Rather than being advanced by claims that contemporary society and its institutions are 'increasing' the precarity of later life, such concerns risk being obfuscated. In developing our critique, we do not intend to diminish the importance of continuing the 'securitisation' of later life, of reducing rates of impoverishment, injury and suffering, and of offering succour to those who need it. We simply wish to point out that such a task is possible only in part, that in part it is already being realised and that it is in part never fully realisable, given the inevitable unfairness that resides not just in how we imagine age, but in how age's corporeality is organised and the necessarily progressive precarity that ageing often engenders.

Growing precarity: indexed by socio-economic inequalities

Although concerns over rising inequality in later life have been raised since at least the 1980s (Crystal, 1986), current literature on precarity in later life seems to concentrate upon relatively recent changes occurring in the first decade and a half of the 21st century, particularly in the face of the new austerity following the recession of 2008 (Ginn, 2013; Biggs, 2014; Grenier et al., 2017b). In considering the evidence in favour of the socio-economic framing of precarity, we highlight the difficulties there are in providing any satisfactory resolution to the question of whether or not there is increasing 'precarity' in later life during this period. If precarity is interpreted as 'shared and/or intersecting forms of inequality, disadvantage and potential suffering' (Grenier et al., 2017b: 10), then clearly measures are needed to assess such forms of inequality. While income inequality is but one of a number of measures of economic inequality, and may not necessarily be the best measure of economic 'precarity', time-trend information on this measure is more readily available than other indices such as consumer expenditure, housing tenure or wealth. Furthermore, income inequality does quite closely track inequalities based upon consumption (Aguiar and Bils, 2015) although it correlates less closely with measures of wealth inequality, which generate overall higher rates of inequality than income (Quadrini and Rios-Rull, 1997).

Evidence from the United States of America (USA)² suggests that wealth inequality, more than income inequality, has grown steeper over the last decade, although paradoxically this has affected the young more, since it is the young, not the old, who evince the greatest inequality in wealth (Kuhn and Rios-Rull, 2016: 69). Restricting the focus to one measure is complicated enough, since income can be measured either as an individual's income or as a proportion of the person's total household income. Most available income data are based on the latter, recognising that larger households benefit from economies of scale. Nevertheless, such measures make assumptions about the individual householders 'disposable' income, which may not represent the individual householder's actual experience of access to money or opportunities to spend it, and hence their experienced economic precarity.

Several reviews of this area exist for the USA in the period prior to 2000 (Crystal and Shea, 1990: 440). There are fewer international comparisons of late-life income inequality from this period but those that have been made suggest that the USA may be something of an 'outlier'. Thus, compared with all other developed countries, the USA reported relatively greater levels of income inequality in later life compared with working life (Hedström and Ringen, 1987: 236). These earlier studies offer no clear picture of changing levels of inequality within later life and provide at best ambiguous data when comparisons are made between earlier and later life. Whatever the picture for that earlier period, we will concentrate here upon more recent research focusing on changing inequalities as they pertain to the 'post-recession' era when arguably many household incomes were and are still suffering from the immediate and delayed effects of the economic crisis of 2007/8 and to which the recent debates on precarity in later life refer.

In one recent review of age, retirement and income inequality in the USA, Bosworth *et al.* commented that:

Money income inequality has increased considerably since the late 1970s. This is true for the U.S. population generally and also within narrower age groups. The growth of inequality has differed in the aged and non-aged populations, however.

First, inequality has increased faster among the non-aged than among the aged. Second, at least in the lower half of the income distribution some measures of inequality now tend *to decline with advancing age* starting around age 62 when workers and their dependent spouses become eligible for early retired-worker benefits. When a birth cohort transitions from ages when labor income provides the bulk of its income to ages when Social Security and pensions provide most family income, families at the bottom of the income distribution see some improvement in their spendable incomes compared with the median family in their age group. (Bosworth *et al.*, 2016: 26, italics added)

The most widely used single index of expressing economic inequality is the Gini coefficient. It measures the extent to which the distribution of income across individuals or households deviates from a perfectly equal distribution, taking values from zero (perfect equality in the distribution) to one (perfect inequality). Calculating and tracking changes in the Gini coefficient for the income of 'aged' and 'non-aged' US families from 1979 to 2012, Bosworth and colleagues observed that in 1979 aged households were 'more' unequal (*i.e.* had higher Gini coefficients) than non-aged households, a position that was reversed by the 2000s when nonaged households had higher Gini coefficients (Bosworth *et al.*, 2016: 33).

There has been a consistent secular trend towards rising inequality over this 35-year period. But this trend was less evident for aged than for non-aged households, in large part because more of their income comes from benefits rather than earnings, with benefits being the more redistributive. With increasing numbers of people continuing to work through their sixties, these authors point out, income inequality may be likely to rise especially among those 'young' old people remaining in or re-entering the workforce. Hence it is possible to argue that, in future, the tendency for household income inequality to decline with age may be a phenomenon increasingly confined to older ages (people aged 70+). Even so, these authors concluded that: 'Inequality increased among the nation's elderly over the past three decades, but it increased much more slowly than it did among the nonelderly' (Bosworth et al., 2016: 58). Similar findings have been reported by Stephen Crystal and his colleagues, of rising household income inequality in the USA at all ages in the period up to 2010, but with relatively greater rises taking place during working life (25–64 years) than in later life (65+ years) (Crystal et al., 2016: 4).

What of other countries? Drawing on data covering the period before 2007/8, Brown and Pus calculated measures of income inequality across seven countries, including the USA (Canada, Germany, Netherlands, Norway, Sweden, United Kingdom (UK) and USA). Using data from the Luxembourg Income Study, based around 2000, they found that income inequality among aged households (65+ years) was less than among households headed by people of working age (45–64 years) in nearly all of the seven countries (Brown and Pus, 2006). Income inequality generally peaked in the late fifties or early sixties, declining consistently thereafter (Brown and Pus, 2006: 312). Ten years later, a New Zealand

study confirmed this picture, observing a decline in the variance of total final incomes with age, among both men and women, as of 2010 (Aziz et al., 2013: 43).

Drawing on data from 27 Organisation for Economic Co-operation and Development (OECD) countries to assess the overall impact of the world-wide recession of 2007/8, the OECD concluded that while gross income inequality rose across the board, after taking account of taxation and benefits, there was relatively little overall change in 'disposable' income inequality from 2007 to 2012 (OECD, 2015: 104). During a situation of worsening inequality and increasing impoverishment for many working-age households, however, poverty rates actually fell among later-life households. They commented:

For the first time since the OECD started collecting this data, in 2011 the poverty rate of people aged 66 to 75 was lower than the population average ... Between 2007 and 2011, the OECD average relative poverty rate fell by 2.6 points among people aged 66 to 75 and by 4 points among people over age 75. The fall in elderly poverty was widespread: poverty among people aged 66 to 75 fell by 1 point or more in 18 countries and among people over age 75 in 21 countries. (OECD, 2015: 111)

In the absence of cohort sequential or longitudinal data it is impossible to understand fully whether or not there were trends towards growing income inequalities among aged households. A few other multi-country studies have tracked changes over time in later-life income distribution before and after the recession. Goudswaard et al. (2012) reported data from the Eurostat SILC-database on income inequalities across 12 European Union (EU) countries. Between 1995 and 2010, they observed 'a general trend towards less income inequality and less poverty among the elderly across countries in the period' (Goudswaard et al., 2012: 24, italics added). '[I]n the majority of the countries', they reported, 'the income inequality among older people [was] smaller than the income inequality among people below the age of 65' (2012: 6). That inequalities in old age were usually lower, these authors argued, arose from the redistributive role of pensions compared with earnings, a point also noted in the US studies. The ameliorating effect of pensions on income inequality seems to be as common among countries with a substantial private pension provision as among countries where pension coverage derives largely from the public sector (Goudswaard et al., 2012: 25).

These authors recently revised their conclusion. Following more detailed analyses of the public and private pension mix of the EU countries, they found that in those countries where pensions were mostly paid through public-sector schemes, later-life income inequality was somewhat lower than in countries where private pension provision formed a larger share of later-life incomes (Been *et al.*, 2017). Thus, although they concurred that later-life income inequalities had declined in most EU countries during the period from 1995 to 2011, the fact that higher levels of private pension influenced income inequalities suggests that if future pension provision becomes increasingly individualised and privatised, this could lead to greater inequalities and hence placing some retired households subject to increasing economic precarity. Such a possibility remains speculative; trends towards the privatisation of pensions in some countries need to be set against a countervailing

greater universalisation of pension provision taking place in others, notably in Latin America (Arza, 2017). Overall, it seems that the better off a country becomes, the less age disadvantaging it demonstrates (Ayalon and Rothermund, 2018).

In the UK, of several reports on long-run trends in late-life income inequality, the most recent is that from the Resolution Foundation, a UK-based 'think-tank' whose stated aim is 'to improve the standard of living of low- and middle-income families' (www.resolutionfoundation.org/about-us/mission). The report's authors observed that among 'pensioner households' real median equivalised household disposable income had grown by some 30 per cent between 2000 and 2015, while that of 'working-age' households had grown by less than 10 per cent (Corlett et al., 2017: 44). If households whose income falls in the top 1 per cent are excluded, however, there was little overall change in levels of income inequality for the rest of the population – among the 'bottom' 99 per cent – from 2000 to 2015 (Corlett et al., 2017: 60). In other words, there has been no transfer of poverty to the margins. Other recent reports suggest that, between 1980 and 2015, retired UK households have shown less income inequality than working-age households; and that income inequality among retired households peaked in 1991 (with another, smaller peak in 2001) and has since fallen, at least up until 2015 (Office for National Statistics, 2017).

In short, income inequality is generally lower in later life than it is during working life, especially towards the end of working life when inequality is often at its greatest. There is fairly consistent evidence that though overall income inequality has increased, in most developed countries, over the last decade, it has either decreased in later life or where it has increased, it has done so at a lower rate than rises in income inequality for people of working age. The suggestion that with age, inequalities increase, at least as far as disposable household income is concerned, is not supported (unless one excludes households of retirement age). This does not mean that there are no inequalities in later life: clearly there are. But these are generally related to work histories prior to retirement, reflecting structural sources of inequality that cannot be attributed to age, such as gender, class and ethnicity. Age currently plays relatively little part in amplifying income inequality; if anything, it tends to reduce inequalities. Data collected from the last two decades show no evidence that this situation has changed. That said, from the kind of observations noted by Been et al. (2017), the trend towards private and occupational pension coverage, the shift towards defined contribution pension schemes and the more fluid boundary between working and non-working life, we may see a future rise in inequality in later life, particularly among the more recent cohorts of retirees. Such trends, however, remain matters for speculation: they are not new and they are not now.

Increasing vulnerability: as indexed by health inequalities

Interpreting data on health inequalities is even more problematic. The emphasis on late-life health inequalities most often relates to pre-existing social inequalities in health, with divisions in occupational class, income, education, ethnicity, *etc.*, being linked to differential rates of morbidity and mortality (Grundy and Sloggett, 2003). Inequality is seen to result in differential health outcomes, with

the rich having better health and lower mortality than the poor, and economically more unequal societies creating greater health disparities within their population. Framed in this manner, health inequality is less about variability in health and life expectancy *per se* than about the assumed source(s) of that inequality – namely that it arises from the sphere of socio-economic relations. Observed health inequalities are deemed the 'dependent variables' whose variance is attributable to 'underlying' inequalities in other areas, typically those associated with earnings and wealth, and their unequal distribution within the population.

The focus tends to be upon 'explaining' the relationship between what may be considered upstream factors (i.e. socio-economic inequalities earlier in working life) and downstream consequences (i.e. morbidity and mortality rates in later life). Such studies, however, risk confounding what are two separable concepts, health inequality and health inequity. The former refers to any measure of health that differs across individuals or groups and is a 'generic term used to designate differences, variations, and disparities in the health achievements of individuals and groups' (Kawachi et al., 2002: 647). Health inequity refers to those disparities or 'inequalities in health that are deemed to be unfair or stemming from some form of injustice' (Kawachi et al., 2002: 647). Insofar as 'most of the health inequalities across social groups (such as class and race) are unjust because they reflect an unfair distribution of the underlying social determinants of health', observed health inequalities are in actuality not inequalities but inequities (Kawachi et al., 2002: 648). Other related distinctions have been made, albeit less often, e.g. between 'total health inequality' and 'social health inequality'. The former refers to the distribution of health across all individuals while the latter 'involves measuring health differences ...from certain a priori chosen social groups' (Harper and Lynch, 2006:

Much less research has been conducted that views health inequality as itself a potential index of social division, on a par with, but not necessarily dependent on, other pre-existing social inequalities (Gilleard and Higgs, 2017). While some researchers see an identity between health inequalities and health inequities (cf. Thorslund and Lundberg, 1994: 52), others argue that while inequalities are observable and measurable, what constitutes inequity and how unjust or unfair any given observed inequality is can never be determined by purely observational science (Kawachi et al., 2002: 648). Thus, while it is important to document differences in both health and life expectancy that appear to be associated with such variables as education, ethnicity, gender, income and household wealth, such studies will tell us little about age-related secular trends in total health inequality (and hence a growing risk of precarious old age).

If socio-economic inequalities affect health inequalities, then increasing, decreasing or stable socio-economic inequalities should clearly have effects on health. What exactly those effects are, how stable they are, and whether or not they are constant across the lifecourse is not so easily observed. In the absence of firm, consistent evidence of any relative or absolute widening of such economic inequalities in later life, as suggested in the previous section, little change in age-related health inequities should be expected. However, it is certainly possible that the impact of already-rising levels of income inequality among the working-age population

may in future lead to growing inequities in later life, in future. Such a possibility remains again speculative.

Even within existing studies of social group inequalities in health, the focus has been almost entirely upon 'relative' rather than 'absolute' inequalities. This focus biases any 'conclusions about whether inequalities are increasing or decreasing over time' (King *et al.*, 2012: 4). Even simple, cross-sectional studies of relative health inequality (inequity) in later life based on socio-economic differences are themselves in short supply and those that have been conducted remain subject to interpretive controversy, including the possibility of significant 'reverse causality' whereby mid-life poor health reduces incomes in later life (Herd, 2006; McMunn *et al.*, 2009; Banks and Smith, 2012; Nordin and Gerdtham, 2014; Huisman *et al.*, 2013).

This latter problem may be compounded over time, and hence with ageing. Each 'impoverishing' adverse health change may amplify or increase the co-variance between income and health. Evidence of health inequities increasing with time and age may thus be a function of the power of age-related ill health to lower a person's income status – leading to what Islam *et al.* (2010) have called the 'overestimation' of the income–health relationship in post-working life. Such overestimation of inequity, they argue, is paralleled by its 'under-estimation' earlier in life, due to the 'student' effect whereby income-poor students remain as healthy (or healthier) than their working peers (Islam *et al.*, 2010: 336). In their detailed decompositional analysis of Swedish income and health data, these researchers found that after taking account of the effects of such health-related 'impoverishment' in later life, the apparent age-related 'increase' in health inequity that they observed disappeared. They concluded that 'when one controls for age-related income mobility over the life cycle there is little evidence that income-related health inequality increases as the population ages' (Islam *et al.*, 2010: 347).

Implicit in these kinds of studies is an absolute decline in health with age (lower mean health) and a concomitantly increased dispersal of health (greater variability in health status). Were that so, such secular trends in total inequalities in health would in themselves be of significance, for individuals, for society and for future generations. Since the 1990s, attempts have been made to create indices capturing 'purely descriptive' measures of total health inequality (Deaton and Paxson, 1998; Gakidou et al., 2000a; Harper and Lynch, 2006). Such measures have not seen extensive use and hence, as Gakidou et al. (2000a: 47) have pointed out, 'in the literature on measuring health inequality, there has been little substantive discussion on summary measures of distribution of health'. There remains in consequence 'little empirical evidence on the measurement of [total] health inequality based on these kinds of measures' (Regidor, 2004: 859). The topic remains underdeveloped and under-theorised, leaving the literature dominated by measures of social group inequalities or socio-economic inequities in health, to the neglect of studies of the overall distribution of health among individuals (Harper and Lynch, 2006: 136). There is even less evidence addressing differences in total health inequality by age or lifestages (but for an early exception, see Deaton and Paxson, 1998), and attempts to assess temporal change in the distributional properties of health and disability at the different stages in the lifecourse, or in later life alone, are almost entirely absent. Given widespread attempts to test Fries' proposition

that a 'compression of morbidity' is taking place in later life (Fries, 1980, 1983), this dearth of research is somewhat surprising.

Studies of secular changes in the compression of morbidity have produced inconclusive results. One general conclusion has been that '[d]isability related or impairment-related measures of morbidity tend to support the theory of compression of morbidity, whereas [measures of] chronic disease morbidity tends to support the expansion of morbidity hypothesis' (Chatterji *et al.*, 2015: 570; *see also* Parker and Thorslund, 2007). In one of the longest periods of observation that has examined changes in the length of disability-free and disabled life conducted between 1970 and 2010, Crimmins *et al.* (2016) observed that while disability-free life expectancy grew steadily amongst the US population, so too did the length of time people spent living with disability. It was only in later life (after age 65 years) that the balance swung *in favour of* older people, who seemed to gain relatively more disability-free years than they acquired extra years spent living with disability (Crimmins *et al.*, 2016: 1290).

While this might suggest that older Americans have experienced a compression of morbidity (and hence less precarity), because this and other similar studies from a variety of other countries rely upon average levels of health or impairment or mean number of years of healthy or unhealthy life, they yield no information about secular changes in the distribution of health and impairment within the older population (e.g. Zunzunegui et al., 2006; Pérès et al., 2013; Angleman et al., 2015; Jagger et al., 2016; Zeng et al., 2017). It is this point - the putative increase in later-life health inequalities - that is perhaps most at issue in the argument about the emergence of growing precarity in later life. Studies focusing upon increases in life expectancy or healthy life expectancy in later life or even changes in the distribution of ages at death can provide no evidence for or against such propositions, no more than studies of falling rates of late-life poverty provide evidence of increasing economic equality.⁴ Nor, for that matter, can studies pointing towards increasing inequities in health. Even evidence that the better-off segments of the older population show a compression of morbidity or increased survivorship in later life while others show an expansion or little overall change in morbidity and mortality cannot in and of itself demonstrate growing total health inequalities (Solé-Auró et al., 2015; Bor et al., 2017; von dem Knesebeck et al., 2017). The implicit assumption that over the last three decades there has been an overall 'compression of morbidity' in the developed economies of the world might imply less rather than more variability within the population of over 65 year olds, but the USA may prove to be an exception (cf. Fries et al., 2011; Bor et al., 2017).

One of the few multi-national studies exploring age-related differences in overall health variability employed an 'adjusted' health Gini coefficient that statistically corrected for age-sex heterogeneity in reporting health status (Van Kippersluis *et al.*, 2009: 821). These authors compared the adjusted Gini coefficient of total health variation of different age groups across 11 European countries. In every country, they found that the adjusted coefficient increased with age, with the steepest rise being at the oldest ages (Van Kippersluis *et al.*, 2009: 824). This pattern of age-associated increases in health inequality contrasted with income-related health inequities, which peaked in mid-life but declined thereafter, much as overall mean health also declined. Although it is possible to argue from this study that while

health inequity declines in later life, health inequality increases, their results were based upon an averaging across eight waves of data collection, and when attempts were made to adjust for specific cohort effects, the pattern was less consistently observed.

It will take more wide-ranging and explicitly longitudinal studies to examine not just cohort but time-period effects in judging change in later-life health inequalities. Nevertheless, the study by Van Kippersluis et al. (2009) represents an important step forward in exploring age-related changes in total health inequality (contrasted with relative health inequities). Even if their conclusions only hint at possible widening health inequalities with age, the distinction between patterns of rising health inequality and attenuating health inequity in later life seems worth pursuing. If health inequalities are indeed greater at more extreme ages in much the same way as mortality dispersion increases with decreasing late-life mortality, it may well be that with ever-more ageing populations, inequalities in health and survival in old age will increase even as social inequities in the distribution of health diminish. Such forms of inequality may prove to be the price paid by society's growing capacity for ensuring longer lives. Success in managing to extend later life might be mirrored by the expansion of a 'healthier' later life, while at the same time realising a growing dispersion in that 'healthiness' and hence a growing proportion of 'unhealthy' later life.

Recent data on Danish later-life expectancy point to some of the potential complexities arising from considering these two processes (Brønnum-Hansen *et al.*, 2017). These authors showed that disability-free life expectancy (DFLE) in Denmark rose from 10.6 years in 2006/7 to 10.9 years in 2013/4, for well-educated older men, and from 12.5 to 12.9 years, for well-educated older women, with a concomitant decrease in the variability of DFLE for both men and women (Brønnum-Hansen *et al.*, 2017: 461). For those with limited education, however, the improvement was actually greater, proportionally and in absolute terms, with DFLE increasing from 7.4 to 8 years for men and from 8.8 to 9.5 years for women, even as the variability *within* these latter groups actually increased. Thus, one could claim that, in Denmark during this period, while later-life health *inequities* declined overall health inequality increased.

Noting how 'no study has yet to document change in lifespan variation over time', Sasson explored temporal changes in lifespan and lifespan variability across different 'race', 'gender' and 'educational status' groups in the USA (Sasson, 2016). In the period 1990–2010 he found that most groups experienced longer lives and less inequality in their length of life – implying a degree of convergence or reduction in social health inequalities. His findings contrast with earlier data indicating a degree of increased inequality (*i.e.* greater variability in survivorship) accompanying increasing later-life expectancy observed since the 1950s (Engelman *et al.*, 2010: 520). Some groups, however, showed a different pattern with white men and women with lower education levels showing increasing inequalities in life expectancy (Sasson, 2016: 288). Assuming that increased within-group variance in life expectancy reflects greater 'riskiness' and less variance reflects greater 'certainty' in realising a long life, Sasson points out that, in the USA, some fractions of the population are indeed becoming more vulnerable. His study focused upon adult life expectancy at the age of 25, however, not at 65 years, so it could be argued

that changes in US life expectancy 'inequality' are being realised during early or mid- rather than in or at late-life (*cf.* Gillespie *et al.*, 2014: 1012; Case and Deaton, 2017). Still his work points to another promising line of inquiry for exploring 'health inequalities' in different socio-economic groups and in identifying change in health inequities. If variability in late-life mortality arises from increasingly longer lives, the accompanying stochastic processes of increasingly irreversible errors may in effect lead to increasing bad luck. Such variability, though growing with age, should differ less across social divisions and more within: rising precarity indeed, but co-existing with stable or even declining inequities.

Conclusions

Positioning later life as a site of increasing precarity continues a discourse about the impoverishment and material hardship that old age confers that dates back into the era before the welfare state (cf. Booth 1899; Rowntree, 1901; Townsend, 1962; Walker, 1980; Shragge, 1984). Contemporary commentaries on precarity suggest that the rhetoric of a 'new age of ageing' masks a more unpalatable truth - the reappearance of an underlying deterioration in the quality and security of later life. This it is claimed is masked by the benefits of a third age that are accruing to a prosperous few. This paper has sought to subject such claims to an empirically informed critique. Its aim has been, in the first place, to specify better what it is that is claimed in recent narratives of the increasing (or new) precarity of later life, distinguishing between increasing economic or socio-economic insecurity and increasing vulnerability to 'corporeal' harm and injury in later life, positions we have aligned with, on the one hand, Standing's concept of precarity as a class or category and, on the other, as a state or condition of vulnerability to harm and injury, consistent with Butler's conceptualisation. Such confounding of points of reference in the precarity debate extend beyond academic discourse into formal policy reports that insist on the precarity and vulnerability of later life on the grounds of their poorer health, while ignoring the absence of any evidence of material hardship, as in the recent report on 'Financial Lives' by the Financial Conduct Authority (FCA, 2017).6

We sought to explore research into economic and physical health that may support, qualify or contradict interpretations of this proposed growing precarity in later life, concentrating on the last two decades as the site for such change. In doing so we have focused upon indicators of changing levels of income and health inequality in later life. If precarity is interpreted as growing inequality or growing vulnerability, then our overall conclusion is that later life has not become noticeably more precarious. This is the case whether the comparison is made between the social locations of working *versus* post-working life or when comparison is made between past and present levels of inequality *within* later life. While there is some ambiguous evidence of growing inequalities, this seems largely confined to the USA. It is mostly absent from studies of later life in European societies. Reports of growing vulnerability can end up being little more than stating the obvious, such as the recent FCA report noted above, that while older people may not be poorer or face greater hardships, they are physically potentially more vulnerable than others (FCA, 2017: 22).

Hard evidence of *change* in late-life health inequalities is difficult to come by. There is an absence of common consensual measures of health and total health inequality and this whole field is rendered more opaque by the ubiquitous confounding of health *inequalities* with health *inequities* (Arcaya *et al.*, 2015; Gakidou *et al.*, 2000*b*: 18; Kjellsson *et al.*, 2015). Evidence favouring a recent (post-2000) expansion of late-life morbidity, an increased dispersal in ages at death or of growing inequality in perceived health in later life is generally lacking, whether viewed from US or European standpoints. In contrast to total health inequalities, however, there is some evidence of increasing *inequity* in late-life morbidity and mortality, at least as regards some disadvantaged groups (Sasson, 2016). This is again mostly limited to the USA where there is perhaps some justification for highlighting a worsening of the conditions of later life among the more disadvantaged.

Although rising income inequalities might be expected to result in rising health inequalities in later life, little research on comparative inequalities has been carried out to test such a speculation. Such research as has been published has produced only weak evidence, at best, for such conjectures (Truesdale and Jencks, 2015). The large gains in national wealth observed over the last few decades in developing and developed economies may well be producing new and widening inequalities (Piketty and Saez, 2014; Ravallion, 2014) which in future may extend into old age. But at present the evidence is that rising overall standards of living are leading to reducing age disadvantages. What happens to future health and welfare inequities in later life remains speculative. Improved and more broadly based measures to assess and evaluate inequalities and polarisations in the distribution of economic health and social wellbeing are needed to generate more coherent data by which to judge the accuracy of statements about the rising precarity or insecurity of later life.

One thing seems given: the longer we live the more evident life's inequities become, but arguably these are inequities presaged less on the way we organise society than on the natural constraints of securing longer lives (Engelman et al., 2010: 512). The longer we live, the more limited scope there may be for socio-economic factors to reduce social and total health inequalities, if not the more evident inequities. Such a conclusion should not prevent us from testing and retesting the validity of such a proposition, nor from trying to organise society in a way as to mitigate against the more iniquitous consequences of such processes. Adopting such a position, we would argue, reflects what might be termed the 'Gramscian position', tempering a pessimism of the intellect with an equal optimism of the will. Treating the precarity of later life as the 'socio-economic' equivalent of the precarious employment experienced by younger adults seems to us to employ a dangerous analogy, for the resolution of precarity in young adulthood offers little guidance in addressing the more intractable vulnerabilities of ever-increasing age. Treating it as a Butlerian 'ontological' position, on the other hand, risks paralysing any attempt to organise care better, improve treatment or ameliorate suffering, and instead of investing in the infrastructure of health and social care, seems simply to call on us to bear witness to life's unfairness as the status quo (Millar, 2017). Precarity, we suggest, offers little additional leverage in advancing a better age, while its ambiguity risks making it a rubber ruler.

NOTES

- 1 'Loneliness', for example, could serve as an additional marker of 'ontological vulnerability', given its harmful consequences. Even so, most research indicates remarkable stability in rates of loneliness within the older population. Studies covering the last decade and a half are limited, but most indicate that (a) most older people report 'no loneliness' and (b) show little or no change over time. Where changes have been reported, they seem attributable more to growing agedness than to rising secular trends, with if anything a decline in rates of loneliness among recent cohorts of older people (Dykstra, 2009; Victor and Bowling, 2012; Dahlberg et al., 2015; Hülür et al., 2016).
- 2 The existence of a unique data-set, the *Historical Survey of Consumer Finances*, has enabled researchers to conduct quite detailed analyses tracking trends in earnings, income and wealth in the US population that is lacking in most other countries (Kuhn and Rios-Rull, 2016).
- 3 The health impact of income inequality is not universal, however, and does not seem to apply to health in later life (Dorling *et al.*, 2007).
- 4 It might be argued that secular changes in the distribution of ages at death constitute evidence for or against increasing inequalities in health, particularly when the measures of distribution refer to deaths above the modal age at death (so-called 'senile' mortality). Such analyses suggest a declining variability in such deaths since the 1950s, which may now (post-2000) be reaching a 'steady state' (cf. Ouellette and Bourbeau, 2011).
- 5 We have used the confidence intervals for each estimated mean DFLE presented in their table 1 as proxy indicators of variability (Brønnum-Hansem *et al.*, 2017: 461).
- 6 Despite gathering evidence that people aged 65 and over were least likely to (a) be over-indebted (4%), (b) be experiencing financial difficulties (1%), (c) have no cash savings (5%), and (d) rent rather than own their own home (17%), the report concluded that 60 per cent showed 'characteristics of potential vulnerability' (FCA, 2017: 22).
- 7 Poor health is the cause of much disadvantage in later life, dominating that from other more distal causes (Heap and Fors, 2015). As Heap (2016) has observed, 'the probability of experiencing coexisting disadvantages was higher in people 77 and older than in those aged 18 through 76. These age differences were partly driven by a high prevalence of physical health problems in older people ... [which] ... formed a central component of coexisting disadvantages'.

References

Aguiar M and Bils M (2015) Has consumption inequality mirrored income inequality? American Economic Review 105, 2725–2756.

Allison A (2015) Discounted life: social time in relationless Japan. Boundary 2 42, 129-141.

Angleman SB, Santoni G, Von Strauss E and Fratiglioni L (2015) Temporal trends of functional dependence and survival among older adults from 1991 to 2010 in Sweden: toward a healthier aging. *Journals of Gerontology: Biological Sciences and Medical Sciences* 70A, 746–752.

Arcaya MC, Arcaya AL and Subramanian SV (2015) Inequalities in health: definitions, concepts, and theories. Global Health Action 8, 27106.

Arza C (2017) The expansion of economic protection for older adults in Latin America: key design features of non-contributory pensions. World Institute for Development Economics Research (WIDER), Working Paper 2017/29.

Ayalon I and Rothermund K (2018) Examining the utility of national indicators of relative age disadvantage in Europe. *European Journal of Ageing* 15, 189–197.

Aziz O, Gemmell N and Laws A (2013) The distribution of income and fiscal incidence by age and gender: some evidence from New Zealand. Victoria University of Wellington, Working Papers in Public Finance 10.

Banks J and Smith JP (2012) International comparisons in health economics: evidence from aging studies. Annual Review of Economics 4, 57–81.

Been J, Caminada K, Goudswaard K and van Vliet O (2017) Public/private pension mix, income inequality and poverty among the elderly in Europe: an empirical analysis using new and revised OECD Data. Social Policy and Administration 51, 1079–1100.

- Biggs S (2014) Ageing and the G20 invited commentary: precarious ageing versus the policy of indifference: international trends and the G20. Australasian Journal on Ageing 33, 226–228.
- Booth C (1899) Old Age Pensions and the Aged Poor: A Proposal. London: Macmillan.
- Bor J, Cohen GH and Galea S (2017) Population health in an era of rising income inequality: USA, 1980–2015. The Lancet 389, 1475–1490.
- Bosworth B, Burtless G and Zhang K (2016) Later Retirement, Inequality in Old Age, and the Growing Gap in Longevity Between Rich and Poor. Economic Studies at Brookings. Washington, DC: Brookings Institution.
- **Brønnum-Hansen H, Eriksen ML, Andersen-Ranberg K and Jeune B** (2017) Persistent social inequality in life expectancy and disability-free life expectancy: outlook for a differential pension age in Denmark? *Scandinavian Journal of Public Health* **45**, 459–462.
- **Brown RL and Prus SG** (2006) Income inequality over the later-life course: a comparative analysis of seven OECD countries. *Annals of Actuarial Science* 1, 307–317.
- Butler J (2004) Precarious Life: The Powers of Mourning and Violence. London: Verso.
- Butler J (2012) Precarious life, vulnerability, and the ethics of cohabitation. Journal of Speculative Philosophy 26, 134–151.
- Case A and Deaton A (2017) Mortality and Morbidity in the 21st Century (Brookings Papers on Economic Activity). Available at http://www.wikisolver.com/wp-content/uploads/2017/05/Mortality-Morbidity-in-the-21st-Century.pdf.
- Chatterji S, Byles J, Cutler D, Seeman T and Verdes E (2015) Health, functioning, and disability in older adults – present status and future implications. The Lancet 385, 563–575.
- Colic-Peisker V, Ong R and Wood G (2015) Asset poverty, precarious housing and ontological security in older age: an Australian case study. *International Journal of Housing Policy* 15, 167–186.
- Corlett A, Clarke S and Tomlinson D (2017) The Living Standards Audit, 2017. London: The Resolution Foundation. Available at http://www.resolutionfoundation.org/app/uploads/2017/07/The-Living-Standards-Audit-2017-FINAL.pdf.
- Crimmins EM, Zhang Y and Saito Y (2016) Trends over 4 decades in disability-free life expectancy in the United States. *American Journal of Public Health* **106**, 1287–1293.
- Crystal S (1986) Measuring income and inequality among the elderly. The Gerontologist 26, 56-59.
- Crystal S and Shea D (1990) Cumulative advantage, cumulative disadvantage, and inequality among elderly people. *The Gerontologist* **30**, 437–443.
- Crystal S, Shea DG and Reyes AM (2016) Cumulative advantage, cumulative disadvantage, and evolving patterns of late-life inequality. *The Gerontologist* 57, 910–920.
- Dahlberg L, Andersson L, McKee KJ and Lennartsson C (2015) Predictors of loneliness among older women and men in Sweden: a national longitudinal study. *Aging and Mental Health* 19, 409–417.
- Day D (1952) Poverty and precarity. The Catholic Worker, May, No. 2, p. 6.
- **Deaton AS and Paxson CH** (1998) Aging and inequality in income and health. *American Economic Review* **88**, 248–253.
- **Dorling D, Mitchell R and Pearce J** (2007) The global impact of income inequality on health by age: an observational study. *BMJ* **335**, 873–878.
- Dykstra PA (2009) Older adult loneliness: myths and realities. European Journal of Ageing 6, 91-100.
- Engelman M, Canudas-Romo V and Agree EM (2010) The implications of increased survivorship for mortality variation in aging populations. *Population and Development Review* 36, 511–539.
- Financial Conduct Authority (FCA) (2017) Understanding the Financial Lives of UK Adults: Findings from the FCA's Financial Lives Survey 2017. London: FCA.
- Frase P (2013) The precariat: a class or a condition? New Labor Forum 22, 11-14.
- Fries JF (1980) Aging, natural death, and the compression of morbidity. *New England Journal of Medicine* **303**, 130–135.
- Fries JF (1983) The compression of morbidity. Milbank Quarterly 61, 397-419.
- Fries JF, Bruce B and Chakravarty E (2011) Compression of morbidity 1980–2011: a focused review of paradigms and progress. *Journal of Aging Research* Article ID 2617022011.
- Gakidou EE, Murray CJL and Frenk J (2000a) Defining and measuring health inequality: an approach based on the distribution of health expectancy. Bulletin of the World Health Organization 78, 42–54.

- **Gakidou E, Murray CJL and Frenk J** (2000b) Measuring preferences on health system performance assessment. EIP/GPE World Health Organization, Geneva. Global Programme on Evidence for Health Policy Discussion Paper 20. Available at http://www.who.int/healthinfo/paper20.pdf.
- Gilleard C and Higgs P (2017) Ageing, corporeality and social divisions in later life. Ageing & Society 37, 1681–1702.
- Gillespie DO, Trotter MV and Tuljapurkar SD (2014) Divergence in age patterns of mortality change drives international divergence in lifespan inequality. *Demography* 51, 1003–1017.
- Ginn J (2013) Austerity and inequality. Exploring the impact of cuts in the UK by gender and age. Research on Ageing and Social Policy 1, 28–53.
- Goudswaard K, van Vliet O, Been J and Caminada K (2012) Pensions and income inequality in old age. *CESifo DICE Report*, ISSN 1613-6373, ifo Institut-Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, 10, 4, pp. 21–26.
- Grenier A, Lloyd L and Phillipson C (2017a) Precarity in late life: rethinking dementia as a 'frailed' old age. Sociology of Health and Illness 39, 318–330.
- Grenier A and Phillipson C (2018) Precarious aging: Insecurity and risk in later life. Hastings Center Report 48, S15–S18.
- Grenier A, Phillipson C, Laliberte Rudman D, Hatzifilalithis S, Kobayashi K and Marier P (2017b)

 Precarity in late life: understanding new forms of risk and insecurity. *Journal of Aging Studies* 43, 9–14.
- **Gruenberg EM** (1977) The failures of success. *Milbank Memorial Fund Quarterly. Health and Society* 55, 3–24
- **Grundy E and Sloggett A** (2003) Health inequalities in the older population: the role of personal capital, social resources and socio-economic circumstances. *Social Science and Medicine* **56**, 935–947.
- Harper S and Lynch J (2006) Measuring health inequalities. In Oakes JM and Kaufman JS (eds), Methods in Social Epidemiology. San Francisco, CA: Jossey-Bass, pp. 134–168.
- Heap M (2016) Living Conditions in Old Age: Coexisting Disadvantages Across Life Domains (PhD thesis). University of Stockholm, Stockholm. Available at http://www.diva-portal.org/smash/get/diva2:950787/FULLTEXT01.pdf.
- Heap M and Fors S (2015) Duration and accumulation of disadvantages in old age. Social Indicators Research 123, 411-429.
- Hedström P and Ringen S (1987) Age and income in contemporary society: a research note. *Journal of Social Policy* 16, 227–239.
- Herd P (2006) Do functional health inequalities decrease in old age? Educational status and functional decline among the 1931–1941 birth cohort. Research on Aging 28, 375–392.
- Huisman M, Read S, Towriss CA, Deeg DJ and Grundy E (2013) Socioeconomic inequalities in mortality rates in old age in the World Health Organization Europe region. *Epidemiologic Reviews* **35**, 84–97.
- Hülür G, Drewelies J, Eibich P, Düzel S, Demuth I, Ghisletta P, Steinhagen-Thiessen E, Wagner GG, Lindenberger U and Gerstorf J (2016) Cohort differences in psychosocial function over 20 years: current older adults feel less lonely and less dependent on external circumstances. Gerontology 62, 354–361.
- **Islam MK, Gerdtham UG, Clarke P and Burström K** (2010) Does income-related health inequality change as the population ages? Evidence from Swedish panel data. *Health Economics* **19**, 334–349.
- Jagger C, Matthews F, Wohland P, Fouweather T, Stephan B, Robinson L, Arthur A and Brayne C (2016) A comparison of health expectancies over two decades in England: results of the Cognitive Function and Ageing Study I and II. The Lancet 387, 779–786.
- Kawachi I, Subramanian SV and Almeida-Filho N (2002) A glossary for health inequalities. *Journal of Epidemiology and Community Health* **56**, 647–652.
- King NB, Harper S and Young ME (2012) Use of relative and absolute effect measures in reporting health inequalities: structured review. BMJ 345, e5774.
- Kjellsson G, Gerdtham UG and Petrie D (2015) Lies, damned lies, and health inequality measurements: understanding the value judgments. *Epidemiology (Cambridge, Mass.)* 26, 673–680.
- Kuhn M and Rios-Rull J-V (2016) 2013 Update on the US earnings, income, and wealth distributional facts: a view from macroeconomics. Federal Reserve Bank of Minneapolis Quarterly Review 37, 1–75.
- McMunn A, Nazroo J and Breeze E (2009) Inequalities in health at older ages: a longitudinal investigation of the onset of illness and survival effects in England. *Age and Ageing* 38, 181–187.
- Millar KM (2017) Toward a critical politics of precarity. Sociology Compass 11, e12483.

Nordin M and Gerdtham UG (2014) Why a positive link between increasing age and income-related health inequality? *Nordic Journal of Health Economics* 2, 187–201.

Office for National Statistics (2017) Household Disposable Income and Inequality in the UK: Financial Year Ending 2016. London: Office for National Statistics.

Organisation for Economic Co-operation and Development (OECD) (2015) Income inequalities during the crisis and fiscal consolidation. In *In It Together: Why Less Inequality Benefits All.* Paris: OECD Publishing, pp. 101–134.

Ouellette N and Bourbeau R (2011) Changes in the age-at-death distribution in four low mortality countries: a nonparametric approach. *Demographic Research* 25, 595–628.

Parker MG and Thorslund M (2007) Health trends in the elderly population: getting better and getting worse. The Gerontologist 47, 150–158.

Pérès K, Edjolo A, Dartigues JF and Barberger-Gateau P (2013) Recent trends in disability-free life expectancy in the French elderly twenty years follow-up of the Paquid cohort. Annual Review of Gerontology and Geriatrics 33, 293–311.

Piketty T and Saez E (2014) Inequality in the long run. Science 344, 838-843.

Quadrini V and Rios-Rull JV (1997) Dimensions of inequality: facts on the US distribution of earnings, income and wealth. Federal Reserve Bank of Minneapolis Quarterly Review 21, 3–21.

Ravallion M (2014) Income inequality in the developing world. Science 344, 851-855.

Regidor E (2004) Measures of health inequalities: part 1. Journal of Epidemiology and Community Health 58, 858–861.

Rowntree BS (1901) Poverty: A Study of Town Life. London: Macmillan.

Sasson I (2016) Trends in life expectancy and lifespan variation by educational attainment: United States, 1990–2010. Demography 53, 269–293.

Shragge E (1984) Pensions Policy in Britain: A Socialist Analysis. London: Routledge.

Solé-Auró A, Beltrán-Sánchez H and Crimmins EM (2015) Are differences in disability-free life expectancy by gender, race, and education widening at older ages? Population Research and Policy Review 34, 1–18.

Standing G (2011) The Precariat: The New Dangerous Class. London: Bloomsbury.

Thorslund M and Lundberg O (1994) Health and inequalities among the oldest old. *Journal of Aging and Health* **6**, 51–69.

Townsend P (1962) The meaning of poverty. British Journal of Sociology 13, 210-227.

Truesdale BC and Jencks C (2015) The health effects of income inequality: averages and disparities. Annual Review of Public Health 37, 413–430.

Turner BS (2006) Vulnerability and Human Rights. University Park, PA: Penn State University Press.

Van Kippersluis H, Van Ourti T, O'Donnell O and Van Doorslaer E (2009) Health and income across the life cycle and generations in Europe. *Journal of Health Economics* 28, 818–830.

Victor C and Bowling A (2012) A longitudinal analysis of loneliness among older people in Great Britain. Journal of Psychology 146, 313–331.

von dem Knesebeck O, Vonneilich N and Lüdecke D (2017) Income and functional limitations among the aged in Europe: a trend analysis in 16 countries. *Journal of Epidemiology and Community Health* 71, 584–591.

Walker A (1980) The social creation of poverty and dependency in old age. *Journal of Social Policy* 9, 49–75.

Wright EO (2016) Is the precariat a class? Global Labour Journal 7, 123-135.

Zeng Y, Feng Q, Hesketh T, Christensen K and Vaupel JW (2017) Survival, disabilities in activities of daily living, and physical and cognitive functioning among the oldest-old in China: a cohort study. *The Lancet* 389, 1619–1629.

Zunzunegui MV, Nunez O, Durban M, de Yébenes MJG and Otero Á (2006) Decreasing prevalence of disability in activities of daily living, functional limitations and poor self-rated health: a 6-year follow-up study in Spain. *Aging Clinical and Experimental Research* 18, 352–358.

Cite this article: Gilleard C, Higgs P (2020). Precarity and the assumption of rising insecurity in later life: a critique. Ageing & Society 40, 1849–1866. https://doi.org/10.1017/S0144686X19000424