Re-evaluating self-evaluation. A commentary on Jen, Jones, and Johnston (68:4, 2009)

Anna Barford [a,*], Danny Dorling [a], Kate Pickett [b]

[a] *Department of Geography, University of Sheffield, Sheffield, S10 2TN, United Kingdom*
[b] *Department of Health Sciences, University of York, York, YO10 5DD, United Kingdom*

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Introduction

In a paper recently published in *Social Science & Medicine*, "Global variations in health: Evaluating Wilkinson's income inequality hypothesis using the World Values Survey", and one in another journal Jen, Jones and Johnston provided analyses of self-rated health, using data from the World Values Survey (Jen, Jones, & Johnston, 2009a, 2009b). They showed that income is significantly associated with self-rated health; higher incomes being related to better health. Although they found that self-rated health varied between countries, they did not find an independent effect of income inequality on self-rated health. The authors concluded that their analyses provided a test, and refutation, of what they described as the "Wilkinson hypothesis".

Briefly stated, the "Wilkinson hypothesis" is that population health in rich countries tends to be better in societies where income is more equally distributed. There are now more than 200 analyses of the nature of this relationship, and reviews of these studies have come to conflicting interpretations of the evidence, with researchers disagreeing over methodological issues, such as the scale at which inequality is measured, whether or not various control variables should be interpreted as confounders or mediators, and the appropriateness of various statistical models (Lynch et al., 2004, Macinko, Shi, Starfield, & Wulu, 2003, Subramanian & Kawachi, 2004,Wilkinson & Pickett, 2006).

In the context of this controversy, do Jen et al's (2009a, 2009b) analyses put a final nail in the coffin of the "Wilkinson hypothesis"? In this paper, we consider the relationship between 'health' (the outcome in the Wilkinson hypothesises to be affected by income inequality) and 'self-rated health' (the outcome analysed by Jen and colleagues). We argue that 'health' and 'self-rated health' cannot always be assumed to be proxies for one another. We also suggest that if, as Jen et al. find, average levels of self-rated health tend to be higher in more unequal societies, that this has something to tell us about the psychosocial effects of living in unequal societies.

Rating our health

What are we actually measuring, when we ask people to rate their own health? Self-rated health might reflect a 'spontaneous assessment', which incorporates many elements of a person's health into an overall or global statement about health status. Alternatively self-rated health might be thought of as reflecting a person's 'enduring self-concept' which remains stable over time, often with independence from changes in health (Bailis, Segall, & Chipperfield, 2003, pp. 205–207). The data on self-rated health collected in the World Values Survey fits into the first typology, a global assessment of health that amalgamates all aspects of one's health into a single statement. The question to which respondents replied was:

> "All in all, how would you describe your state of health these days? Would you say it is excellent, very good, good, fair, poor or don't know?" (Jen et al., 2009b, p. 645).

In a review of 27 studies, Idler and Benyamini (1997) found that self-rated health was generally predictive of mortality (Idler &

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* Corresponding author. University of Sheffield, Department of Geography, Winter Street, Sheffield S10 2TN, United Kingdom. Tel.: +44 7866 759 301.

  E-mail address: Anna.Barford@sheffield.ac.uk (A. Barford).

Benyamini, 1997, Table 1 & p. 34), this paper is referenced by Jen et al. to support their use of self-rated health as a measure of actual health (Jen et al., 2009a, 2009b). Only one of the 27 papers reviewed by Idler and Benyamini was a cross-country study– which included the cities of Kaunas in Lithuania and Rotterdam in the Netherlands; all the others were national or sub-national studies. Self-rated health measures within a single country might be reasonably assumed to be unaffected by factors that might affect cross-country measures, such as cultural, institutional and political heterogeneity.

International differences in self-rated health

Jen et al. found that self-rated health is better in more unequal countries, despite the fact that numerous studies find that life expectancy is lower in more unequal countries. If self-rated health is not correlated with actual health in a cross-country comparison, then how can we interpret the measure of self-reported health? Jen at al. acknowledge the possibility that responses are "cultural constructs" rather than true reflections of health, but argue that compromises to validity and reliability of responses due to the cross-cultural nature of this research have been reduced through careful survey design (Jen et al., 2009b, p. 645).

Studies show that people's ratings of their health are affected by social position, choice of referent group and gender (Idler & Benyamini, 1997, p. 26). Is it possible that the level of inequality within a society has a direct impact on the way in which people perceive and report their health? If relative social position is an important influence on self-rated health, then in more equal societies, fewer people occupy extreme positions in the social hierarchy and each person's frame of reference for comparing their health to other peoples' is likely to be wider/include more people.

It also seems plausible that in more unequal societies, which are characterized by more status competition, people may more frequently and obviously need to reassure themselves of their strength and wellbeing and their potential to succeed. Asserting that one has excellent or very good health might be part of maintaining one's self-image. A Nepalese saying, which probably works better in English than in Nepali, is that "health is wealth". The connection between health and wealth is, of course, bi-directional. If you are healthy you can work, and if you are wealthy you can afford a healthier lifestyle.

An alternative, and equally plausible explanation, might be that people in more equal societies are less inclined to rate themselves at the top of a scale. Perhaps growing up in a more egalitarian society, where the quality of social relationships between people is better, means that people are less likely to label themselves as 'the best' or 'excellent'. Among the countries included in Jen et al's analyses (Jen et al., 2009a, 2009b), Japan had the lowest level of self-rated health, but it has the highest life expectancy among rich developed countries. In Japan, it is much less common to report that one is happy than in the United States, where it is expected that people at least *say* they are happy (Ballas, 2006). Cross-country comparisons of happiness are widely believed to be affected by cultural differences in expressing happiness, and the same cultural influences seem to be affecting how people express their feelings of health.

Interpretation and inference

Jen et al.'s (2009a, 2009b) studies of income inequality, income and self-rated health have produced more intriguing questions than answers. Instead of being a test of the 'Wilkinson hypothesis' they suggest new hypotheses and rich possibilities for future research on the influence of status hierarchies on self-perception.

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