

Rethinking the health consequences of social class and social mobility

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ABSTRACT: The task of studying the impact of social class on physical and mental health involves, among other things, the use of a conceptual toolbox that defines what social class is, establishes how to measure it, and sets criteria that help distinguish it from closely related concepts. One field that has recently witnessed a wealth of theoretical and conceptual research on social class is psychology, but geographers' and sociologists' attitude of diffidence toward this "positivistic" discipline has prevented them from taking advantage of this body of scholarship. This paper aims to highlight some of the most important developments in the psychological study of social class and social mobility that speak to the long-standing concerns of health geographers and sociologists with how social position, perceptions, social comparisons, and class-based identities impact health and well-being.

KEY WORDS: social class; social mobility; health geography; health sociology; health psychology; physical health; mental health;

Highlights:

- The psychology of social class has been neglected by geographers and sociologists
- The subjective experience of social class has distinct implications for health
- Both upward and downward social mobility can have negative health impacts
- The concept of status-based identity is useful for health geography and sociology
- Local geographies and situationally salient factors shape the status-health nexus

Health geographers and sociologists have a long standing record of documenting and explaining the relationships between one's social class and physical and mental health (Andrews, 2017; Dorling, 2015; Elliott, 2017; Moon et al, 2015; Rosenberg, 2014, 2016a-b; Santana et al, 2015). This work has ethical and political implications in that it speaks to the pernicious effects of human inequality and to the differential impact on social classes of economic and social policies (Israel and Frenkel, 2017; Simandan, 2005a-b, 2010a, 2011a). The task of studying the impact of social class on physical and mental health involves, among other things, the use of a conceptual toolbox that defines what social class is, establishes how to measure it, and sets criteria that help distinguish it from closely related concepts. There has been little attention paid, however, to refining and enriching this conceptual toolbox with ideas and theoretical developments outside the confines of geography and sociology. This neglect has exacted a price in missed research opportunities and missed insights of potentially broad social relevance. One field that has recently witnessed a wealth of theoretical and conceptual research on social class is psychology, but geographers' and sociologists' attitude of diffidence toward this so-called positivistic discipline (cf. Christodoulou, 2010; Gough, 2017; Richardson and Slife, 2011; Smith and Reid,

2017; Ussher, 1999) has prevented them from taking advantage of this body of scholarship. This short communication aims to highlight some of the most important developments in the psychological study of social class and social mobility that speak to the long-standing concerns of health geographers and sociologists with how social position, perceptions, social comparisons, and class-based identities impact health and well-being (Chan and Goldthorpe, 2007; Friedman, 2014a-b; Goldthorpe, 2009; Irwin, 2015; Mallman, 2017; Marmot, 2005; Marmot et al, 1991; Pickett and Wilkinson, 2015; Singh-Manoux et al, 2003; Stringhini et al, 2013; Uphoff et al, 2013).

Any given society is stratified into several social classes. In Anglo-American social science, belongingness to a given social class is customarily established by measuring three key variables: level of education, occupational prestige, and income (Loignon and Woehr, 2017; Simandan, 2002, 2011b, 2012). One criterion for judging the fairness of a society is its level of social mobility, that is, the ease and frequency of moving into a different class than that into which one was born. Social class, also known as socioeconomic status (SES), translates into observable attributes and behaviors, such as dialects and accents, tastes and manners, and styles of dressing (Kraus et al, 2013). The observable features shape social interaction and generate a distinct phenomenology of subjectively experiencing one's social class both at a large-scale societal level and in a context-specific manner (Gervais and Fessler, 2017). The subjective experience of social class mediates widely differentiated outcomes for the mental and physical health of upper versus lower class individuals (Chen and Miller, 2013). The lower one's social class, the higher one's level of chronic psychological stress: lower social class individuals have fewer resources to control their environment and therefore experience uncertainty, helplessness,

and lack of freedom (Ezeh et al., 2017; Pepper and Nettle, 2017; Whitehead et al., 2016). On the contrary, upper class individuals have more financial, social, and intellectual resources at their disposal, which enable them to feel socially valued and in control of their lives. Measures of self-perceived socioeconomic status co-vary with both self-rated global health (Hyde and Jones, 2007) and objective markers of health, such as high blood pressure (Wright and Steptoe, 2005), susceptibility to viral infections (Cohen et al, 2008), and mortality (Kopp et al, 2004). The general causal mechanism explaining these statistical associations seems to be: chronic lack of resources foments subjective uncertainty about one's ability to make ends meet, which triggers one's threat response and its associated chronic activation of the sympathetic nervous system and overproduction of pro-inflammatory cytokines, which over time increase one's allostatic load, which eventually results in higher morbidity and mortality (see also McEwen, 2017; Ohrnberger et al., 2017).

More recent psychological research has focused on the concept of *status-based identity*, that is, the study of "the subjective meaning and value that people attach to understanding their own SES as an identity" (Destin et al, 2017: 270). The concept is especially useful for capturing the variation in subjective well-being and mental health associated with one's understanding of one's own social class. Status-based identity brings together aspects of *narrative identity* (the dynamic, re-edited, story of one's life), *social identity* (one's perceived belongingness to various social groups and status within them), and *future identity* (one's anticipated transformation into a different self through education, career, aging, and general life experience). As such, it helps researchers understand the implications of social mobility on the mental health and subjective well-being of individuals. Specifically, the transition from one social class to another is bound to

generate *status-based identity uncertainty* (Destin et al, 2017; Destin and Debrosse, 2017). This happens because social class is an entrenched, difficult to overcome, aspect of identity fashioned over many years of immersion in an “environment where individuals are socialized to take on particular conceptions of the self and models for how to relate to others” (Kraus et al, 2013: 81). Ironically, even though high levels of upward social mobility are desirable from a political philosophical standpoint, the status-based identity uncertainty triggered by social mobility increases one’s allostatic load and decreases one’s subjective well-being. To demonstrate this effect, Destin et al, 2017, have developed an eleven item status-based identity uncertainty scale with good reliability and validity, and have used it in empirical research to show that status-based identity uncertainty uniquely predicts lower self-esteem and lower satisfaction with life. These results have practical implications for mental health management to the extent that they call attention to those critical periods in one’s lifespan (going to college, graduating from college, entry into the labor force, marriage, divorce, retirement, etc.) when social class transitions are especially likely. Whereas Destin et al’s (2017) new construct sheds light on the mental health implications of the uncertainty inherent in social class transitions, related research has shown that downward social mobility predicts a range of negative physical health outcomes (Alcántara et al, 2014; Collins et al, 2015) and that upward social mobility does not predict improved physical health outcomes (Lee & Huang, 2015). Particularly poignant in this context is the documenting of the long shadow cast over the lives of people from disadvantaged backgrounds who benefit from upward social mobility. This demographic is especially likely to suffer the negative health consequences of social isolation (Simandan, 2010b, 2011c-d, 2016): as they move to a higher social class, they tend to have fewer interactions with their social class of origin and some of these remaining interactions are underwritten by the negative emotion of

envy (Atherton, 2016; Fiske, 2013; Friedman, 2014a-b; Mallman, 2017; Miceli and Castelfranchi, 2007; Van de Ven, 2017; Van Laar et al, 2014). This demographic also has to struggle to fit in and being accepted by their new social class, a difficult process marked by the perpetual threat of social exclusion, discrimination, and feeling like an impostor (Hudson, 2015; Miller et al, 2015; Shahrokni, 2015; Southgate et al, 2017). In other words, their narrative identity and their social identity must be radically rewritten, and this rewriting fosters uncertainty and chronic stress. The concept of status-based identity uncertainty also helps explain the experience of unemployment and the host of negative health outcomes associated with it (Griep et al, 2016). Of all forms of social class change, long-term unemployment is likely to be the most damaging because it combines the undesirable direction of social mobility (downward) with the fact that the change is outside one's control and often unexpected (psychological shock).

Recent psychological research on social class and social mobility should be taken in by health geographers and sociologists for one more important reason: the discovery that people's well-being is shaped by how they compare with others in their *local* environment. Global or national wealth statistics are often unknown to lay people: "the broad shape of an overall distribution of outcomes matters much less than the local shape of an individual's most salient distributions" (Norton, 2013: 124). Empirical research has shown that indeed people have a very poor sense of both the distribution of wealth in their respective nation and their own place in it (Cruces et al, 2013; Norton and Ariely, 2011). Moreover, as suggested by research on the relative income and relative deprivation hypotheses (Fu et al, 2015; Mishra and Carlton, 2015; Walker and Smith, 2002), their life satisfaction and subjective well-being are predicted by their *local* social rank, and not by their position in global or national statistics. Thus, a study by Boyce et al (2010) using

a large representative US sample uncovered that income rank within one's community (operationalized as one's county zip code) significantly predicted life satisfaction, whereas one's absolute income did not. These data supporting the importance of local geographies are corroborated by earlier research showing that workers experience lower workplace satisfaction when learning that they earn less than their coworkers (Brown et al, 2008) and that people experience lower life satisfaction when learning that they earn less than their neighbors (Luttmer, 2005). These empirical patterns of evidence suggest the conclusion that "rank is constantly constructed in the situation – by who and what is salient for comparison at any point in time" (Norton, 2013: 124; see also Anderson et al, 2015; Buttrick et al., 2017). This conclusion opens up new ways to explore the health geographies and sociologies of social class that emphasize performativity, positionality, embodiment, and the situatedness of social practice (Andrews, 2014; Andrews et al., 2014; Simandan, 2013a-b, 2017a-b; Bondi, 2005, 2014; Dyck, 2003).

Indeed, as shown in the foregoing, the psychological literature on the health consequences of social class and social mobility discussed in this paper emphasizes the subjective, embodied, affect-laden experiencing of social class and social mobility, it gives due attention to place-based, micro-scale social interactions, and it attends to how social class is iteratively performed through social encounters throughout the life-course. Scientific progress thrives on openness, dialogue, and the hybridization of previously disconnected concepts, ideas, and methods (Bunge, 2003). In this spirit, the purpose of this short communication has been to signal the potential fruitfulness of a sustained engagement between psychological research on the health consequences of social class and social mobility and its geographical and sociological counterparts.

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References

- Alcántara, C., Chen, C.N. and Alegría, M., 2014. Do post-migration perceptions of social mobility matter for Latino immigrant health?. *Social Science & Medicine*, 101, pp.94-106.
- Anderson, C., Hildreth, J.A.D. and Howland, L., 2015. Is the desire for status a fundamental human motive? A review of the empirical literature. *Psychological bulletin*, 141(3), pp.574-601.
- Andrews, G.J., 2014 Co-creating health's lively, moving frontiers: Brief observations on the facets and possibilities of non-representational theory. *Health & Place*, 30, pp.165-170.
- Andrews, G.J., 2017. Health geographies I: The presence of hope. *Progress in Human Geography*, Early View. <https://doi.org/10.1177%2F0309132517731220>
- Andrews, G.J., Chen, S. and Myers, S., 2014. The 'taking place' of health and wellbeing: Towards non-representational theory. *Social Science & Medicine*, 108, pp.210-222.
- Atherton, G., 2016. *The success paradox: Why we need a holistic theory of social mobility*. London: Policy Press.
- Bondi, L., 2005. Making connections and thinking through emotions: between geography and psychotherapy. *Transactions of the Institute of British Geographers*, 30(4), pp.433-448.
- Bondi, L., 2014. Understanding feelings: Engaging with unconscious communication and embodied knowledge. *Emotion, Space and Society*, 10, pp.44-54.
- Boyce, C.J., Brown, G.D. and Moore, S.C., 2010. Money and happiness: Rank of income, not income, affects life satisfaction. *Psychological Science*, 21(4), pp.471-475.
- Brown, G.D., Gardner, J., Oswald, A.J. and Qian, J., 2008. Does Wage Rank Affect Employees' Well-being?. *Industrial Relations: A Journal of Economy and Society*, 47(3), pp.355-389.
- Bunge, M., 2003. *Emergence and convergence: Qualitative novelty and the unity of knowledge*. Toronto: University of Toronto Press.
- Buttrick, N.R., Heintzelman, S.J. and Oishi, S., 2017. Inequality and well-being. *Current Opinion in Psychology*, 18, pp.15-20.
- Chan, T.W. and Goldthorpe, J.H., 2007. Class and status: The conceptual distinction and its empirical relevance. *American sociological review*, 72(4), pp.512-532.

Simandan D. (2018) Rethinking the health consequences of social class and social mobility. *Social Science & Medicine*. In Press.

Chen, E. and Miller, G.E., 2013. Socioeconomic status and health: mediating and moderating factors. *Annual Review of Clinical Psychology*, 9, pp.723-749.

Christodoulou, J., 2010. *Identity, Health and Women: A Critical Social Psychological Perspective*. Berlin: Springer.

Cohen, S., Alper, C.M., Doyle, W.J., Adler, N., Treanor, J.J. and Turner, R.B., 2008. Objective and Subjective Socioeconomic Status and Susceptibility to the Common Cold. *Health Psychology*, 27(2), pp.268-274.

Collins, J.W., Rankin, K.M. and David, R.J., 2015. Downward economic mobility and preterm birth: An exploratory study of Chicago-born upper class white mothers. *Maternal and Child Health Journal*, 19(7), pp.1601-1607.

Cruces, G., Perez-Truglia, R. and Tetaz, M., 2013. Biased perceptions of income distribution and preferences for redistribution: Evidence from a survey experiment. *Journal of Public Economics*, 98, pp.100-112.

Destin, M. and Debrosse, R., 2017. Upward social mobility and identity. *Current Opinion in Psychology*, 18, pp.99-104.

Destin, M., Rheinschmidt-Same, M. and Richeson, J.A., 2017. Status-Based Identity: A Conceptual Approach Integrating the Social Psychological Study of Socioeconomic Status and Identity. *Perspectives on Psychological Science*, 12(2), pp.270-289.

Dorling D (2015) The mother of underlying causes: Economic ranking and health inequality. *Social Science and Medicine* 128: 327–330.

Dyck, I., 2003. Feminism and Health Geography: twin tracks or divergent agendas?. *Gender, place and culture*, 10(4), pp.361-368.

Elliott, S.J. 2017. 50 years of medical health geography(ies) of health and wellbeing, *Social Science & Medicine*, In Press, doi: 10.1016/j.socscimed.2017.11.013.

Ezeh A, Oyebode O, Satterthwaite D, Chen YF, Ndugwa R, Sartori J, Caiaffa W 2017. The history, geography, and sociology of slums and the health problems of people who live in slums. *The Lancet* 389(10068): 547–558.

Fiske, S.T., 2013. Divided by status: upward envy and downward scorn. *Proceedings of the American Philosophical Society*, 157(3): 261-268.

Friedman, S., 2014a. The price of the ticket: Rethinking the experience of social mobility. *Sociology*, 48(2), pp.352-368.

Friedman, Sam 2014b. Habitus clivé and the emotional imprint of social mobility. *The Sociological Review*, 64 (1). pp. 129-147.

Fu, M., Exeter, D.J. and Anderson, A., 2015. The politics of relative deprivation: A transdisciplinary social justice perspective. *Social Science & Medicine*, 133, pp.223-232.

Simandan D. (2018) Rethinking the health consequences of social class and social mobility. *Social Science & Medicine*. In Press.

Gervais, M.M., Fessler, D.M 2017 On the deep structure of social affect: Attitudes, emotions, sentiments, and the case of “contempt”. *Behavioral and Brain Sciences*, vol 40, e225, pp. 1-18.

<https://doi.org/10.1017/S0140525X16000352>

Goldthorpe, J.H., 2009. Analysing social inequality: a critique of two recent contributions from economics and epidemiology. *European Sociological Review*, p.jcp046.

Gough, B., 2017. Critical Social Psychologies: Mapping the Terrain. In *The Palgrave Handbook of Critical Social Psychology* (pp. 3-14). Palgrave Macmillan UK.

Griep, Y., Kinnunen, U., Nätti, J., De Cuyper, N., Mauno, S., Mäkikangas, A. and De Witte, H., 2016. The effects of unemployment and perceived job insecurity: a comparison of their association with psychological and somatic complaints, self-rated health and life satisfaction. *International archives of occupational and environmental health*, 89(1), pp.147-162.

Hudson DL 2015 “All that glitters is not gold”: social mobility, health, and mental health among African Americans. In N. Morrow-Howell and MS Sherraden, eds., *Financial capability and asset holding in later life: a life course perspective*, Oxford: Oxford University Press, pp. 27-45.

Hyde, M. and Jones, I.R., 2007. The long shadow of work—does time since labour market exit affect the association between socioeconomic position and health in a post-working population. *Journal of Epidemiology and Community Health*, 61(6), pp.533-539.

Irwin, S., 2015. Class and comparison: subjective social location and lay experiences of constraint and mobility. *The British Journal of Sociology*, 66(2), pp.259-281.

Israel, E. and Frenkel, A., 2017. Social justice and spatial inequality: Toward a conceptual framework. *Progress in Human Geography*, Early View. 1-19, <https://doi.org/10.1177%2F0309132517702969>

Kopp, M., Skrabski, Á., Réthelyi, J., Kawachi, I. and Adler, N.E., 2004. Self-rated health, subjective social status, and middle-aged mortality in a changing society. *Behavioral Medicine*, 30(2), pp.65-72.

Kraus, M.W., Tan, J.J. and Tannenbaum, M.B., 2013. The social ladder: A rank-based perspective on social class. *Psychological Inquiry*, 24(2), pp.81-96.

Lee, M.C. and Huang, N., 2015. Changes in self-perceived economic satisfaction and mortality at old ages: Evidence from a survey of middle-aged and elderly adults in Taiwan. *Social Science & Medicine*, 130, pp.1-8.

Loignon, A.C. and Woehr, D.J., 2017. Social Class in the Organizational Sciences: A Conceptual Integration and Meta-Analytic Review. *Journal of Management*, Early View, 1-28,

<https://doi.org/10.1177%2F0149206317728106>

Luttmer, E.F., 2005. Neighbors as negatives: Relative earnings and well-being. *The Quarterly Journal of Economics*, 120(3), pp.963-1002.

Mallman, M., 2017. Not entirely at home: Upward social mobility and early family life. *Journal of Sociology*, 53(1): 18-31.

Marmot, M., 2005. Social determinants of health inequalities. *The Lancet*, 365(9464), pp.1099-1104.

Simandan D. (2018) Rethinking the health consequences of social class and social mobility. *Social Science & Medicine*. In Press.

Marmot, M.G., Stansfeld, S., Patel, C., North, F., Head, J., White, I., Brunner, E., Feeney, A. and Smith, G.D., 1991. Health inequalities among British civil servants: the Whitehall II study. *The Lancet*, 337(8754), pp.1387-1393.

McEwen BS. 2017. Allostasis and the Epigenetics of Brain and Body Health Over the Life Course: The Brain on Stress. *JAMA Psychiatry* 74(6): 551–552. doi:10.1001/jamapsychiatry.2017.0270

Miceli, M. and Castelfranchi, C., 2007. The envious mind. *Cognition and Emotion*, 21(3), pp.449-479.

Miller, G.E., Yu, T., Chen, E. and Brody, G.H., 2015. Self-control forecasts better psychosocial outcomes but faster epigenetic aging in low-SES youth. *Proceedings of the National Academy of Sciences*, 112(33), pp.10325-10330.

Mishra, S. and Carleton, R.N., 2015. Subjective relative deprivation is associated with poorer physical and mental health. *Social Science & Medicine*, 147, pp.144-149.

Moon G, Aitken G, Roderick P, Fraser S, Rowlands G 2015 Towards an understanding of the relationship of functional literacy and numeracy to geographical health inequalities. *Social Science and Medicine* 143: 185–193.

Norton, M.I., 2013. All ranks are local: why humans are both (painfully) aware and (surprisingly) unaware of their lot in life. *Psychological Inquiry*, 24(2), pp.124-125.

Norton, M.I. and Ariely, D., 2011. Building a better America—One wealth quintile at a time. *Perspectives on Psychological Science*, 6(1), pp.9-12.

Ohrnberger, J., Fichera, E. and Sutton, M., 2017. The relationship between physical and mental health: A mediation analysis. *Social Science and Medicine*. 195, 42-49.

Pepper, G.V. and Nettle, D., 2017. The behavioural constellation of deprivation: causes and consequences. *Behavioral and Brain Sciences*, pp.1-72. Advanced online publication. <https://doi.org/10.1017/S0140525X1600234X>

Pickett, K.E. and Wilkinson, R.G., 2015. Income inequality and health: a causal review. *Social Science & Medicine*, 128, pp.316-326.

Richardson, F.C. and Slife, B.D., 2011. Critical Thinking in Social and Psychological Inquiry. *Journal of Theoretical and Philosophical Psychology*, 31(3), pp.165-172.

Rosenberg M 2014. Health geography I: Social justice, idealist theory, health and health care. *Progress in Human Geography* 38: 466–475.

Rosenberg, M 2016a. Health geography II: ‘Dividing’ health geography. *Progress in Human Geography*, 40(4), pp.546-554.

Rosenberg, M 2016b. Health geography III: Old ideas, new ideas or new determinisms? *Progress in Human Geography*, Early View, DOI: 10.1177/0309132516670054

Santana P, Costa C, Cardoso G, Loureiro A, Ferrão J 2015. Suicide in Portugal: Spatial determinants in a context of economic crisis. *Health and Place* 35: 85–94.

Simandan D. (2018) Rethinking the health consequences of social class and social mobility. *Social Science & Medicine*. In Press.

Shahrokni, S., 2015. The minority culture of mobility of France's upwardly mobile descendants of North African immigrants. *Ethnic and Racial Studies*, 38(7), pp.1050-1066.

Simandan, D., 2002 On what it takes to be a good geographer. *Area*, 34(3), pp. 284-293. DOI 10.1111/1475-4762.00082

Simandan, D. 2005-a. *New Ways in Geography*. Timisoara: West University Press. ISBN 973-7608-23-2.

Simandan D., 2005-b. *Pragmatic Scepticism and the Possibilities of Knowledge*. Timisoara, Editura Universitatii de Vest, ISBN 973-7608-22-4.

Simandan D 2010-a. Beware of contingency. *Environment and planning. D: Society and Space*, 28(3), pp. 388-396. DOI 10.1068/d2310

Simandan, D., 2010-b. On how much one can take: relocating exploitation and exclusion within the broader framework of allostatic load theory. *Health & Place*, 16(6), pp.1291-1293. <https://doi.org/10.1016/j.healthplace.2010.08.009>

Simandan D 2011-a. Kinds of environments—a framework for reflecting on the possible contours of a better world. *The Canadian Geographer/Le Géographe canadien*, 55(3), pp. 383-386. DOI 10.1111/j.1541-0064.2010.00334.x

Simandan, D., 2011-b. Is engaged pluralism the best way ahead for economic geography? Commentary on Barnes and Sheppard (2009). *Progress in Human Geography*, 35(4), pp. 568-572. DOI 10.1177/0309132510390874

Simandan, D., 2011-c. On time, place and happiness. *New Zealand Geographer*, 67(1), pp.6-15. DOI: 10.1111/j.1745-7939.2011.01192.x

Simandan D., 2011-d. The wise stance in human geography, *Transactions of the Institute of British Geographers*. 36 (2), 188-192, <https://doi.org/10.1111/j.1475-5661.2010.00415.x>

Simandan, D., 2012 Options for moving beyond the canonical model of regional path dependence. *International Journal of Urban and Regional Research*, 36(1), pp. 172-178. DOI 10.1111/j.1468-2427.2011.01090.x

Simandan, D 2013-a. Introduction: Learning as a geographical process. *The Professional Geographer*, 65(3), pp. 363-368. DOI 10.1080/00330124.2012.693872

Simandan, D 2013-b. Learning wisdom through geographical dislocations. *The Professional Geographer*, 65(3), pp. 390-395. DOI 10.1080/00330124.2012.693876

Simandan, D 2016 Proximity, subjectivity, and space: Rethinking distance in human geography. *Geoforum*, 75, pp. 249-252. DOI 10.1016/j.geoforum.2016.07.018

Simandan, D., 2017-a. Demonic geographies. *Area*. 49(4): 503-509. DOI: 10.1111/area.12339

Simandan D., 2017-b. Competition, contingency, and destabilization in urban assemblages and actor-networks, *Urban Geography*. Advanced online publication, 1-12, <https://doi.org/10.1080/02723638.2017.1382307>

Simandan D. (2018) Rethinking the health consequences of social class and social mobility. *Social Science & Medicine*. In Press.

Singh-Manoux, A., Adler, N.E. and Marmot, M.G., 2003. Subjective social status: its determinants and its association with measures of ill-health in the Whitehall II study. *Social Science & Medicine*, 56(6), pp.1321-1333.

Smith, T.S. and Reid, L., 2017. Which 'being' in wellbeing? Ontology, wellness and the geographies of happiness. *Progress in Human Geography*, Early View, 1-23, <https://doi.org/10.1177%2F0309132517717100>

Southgate, E., Brosnan, C., Lempp, H., Kelly, B., Wright, S., Outram, S. and Bennett, A., 2017. Travels in extreme social mobility: how first-in-family students find their way into and through medical education. *Critical Studies in Education*, 58(2), pp.242-260.

Stringhini, S., Batty, G.D., Bovet, P., Shipley, M.J., Marmot, M.G., Kumari, M., Tabak, A.G. and Kivimäki, M., 2013. Association of lifecourse socioeconomic status with chronic inflammation and type 2 diabetes risk: the Whitehall II prospective cohort study. *PLoS Med*, 10(7), p.e1001479.

Uphoff, E.P., Pickett, K.E., Cabieses, B., Small, N. and Wright, J., 2013. A systematic review of the relationships between social capital and socioeconomic inequalities in health: a contribution to understanding the psychosocial pathway of health inequalities. *International Journal for Equity in Health*, 12(1), p.54.

Ussher, J.M., 1999. Feminist Approaches to Qualitative. In M. Murray and K. Chamberlain, eds., *Qualitative health psychology: Theories and methods*, pp.98-114.

Van de Ven, N., 2017. Envy and admiration: Emotion and motivation following upward social comparison. *Cognition and Emotion*, 31(1), pp.193-200.

Van Laar, C., Bleeker, D., Ellemers, N. and Meijer, E., 2014. Ingroup and outgroup support for upward mobility: Divergent responses to ingroup identification in low status groups. *European Journal of Social Psychology*, 44(6), pp.563-577.

Walker, I. and Smith, H.J., 2002. *Relative deprivation: Specification, development, and integration*. Cambridge: Cambridge University Press.

Whitehead M, Pennington A, Orton L, Nayak S, Petticrew M, Sowden A, White M 2016. How could differences in 'control over destiny' lead to socio-economic inequalities in health? A synthesis of theories and pathways in the living environment. *Health & Place* 39: 51–61.

Wright, C.E. and Steptoe, A., 2005. Subjective socioeconomic position, gender and cortisol responses to waking in an elderly population. *Psychoneuroendocrinology*, 30(6), pp.582-590.