

Authors' Reply

Racial Disparities in Self-Rated Health at Older Ages and the Dangers of Obfuscating Neighborhood Effects Research

Kathleen A. Cagney,¹ Christopher R. Browning,² and Ming Wen³

¹Department of Health Studies, University of Chicago, Illinois. ²Department of Sociology, Ohio State University, Columbus. ³Department of Sociology, University of Utah, Salt Lake City.

WE THANK Prof. Golant for his comments concerning our work. Our aims in this brief response are to (a) discuss the role of omitted individual-level measures, particularly related to psychological indices; (b) address concerns about the sophistication of neighborhood-level measures; and (c) review the relevance of these comments for racial disparities in health. To reorient the reader, our article is about racial differences in self-rated health at older ages and the potential explanatory contribution of neighborhood social context. A multilevel approach, theoretically and empirically, is necessary to discuss and test any mechanisms that operate at the neighborhood level; we hypothesized that neighborhood-level factors might account for the racial difference in self-rated health observed at the individual level.

First, a fundamental concern, raised here and elsewhere, is that neighborhood variables are simply picking up poorly measured or unmeasured individual-level characteristics. It is this concern that prompted our reliability analysis. Although the reliability analysis speaks to only one issue—the relationship between individual- and neighborhood-level economic status—and one form of mismeasurement—a construct poorly measured rather than one omitted altogether—we believe it provides additional evidence in support of our hypothesis that neighborhood factors uniquely affect health. That is, even under a scenario where individual-level income is measured with poor precision, we still see an impact from the aggregate level of income in the community. As for omitted variables, we agree that psychological factors such as optimism could be important. They could confound, mediate, or indeed be endogenous to the neighborhood–health relationship. We did not have the empirical opportunity to explore this pathway. That said, we do not believe our results can be explained by unmeasured psychological profiles exhibited in the aggregate. We were unable to find evidence in support of the hypothesis that optimistic persons, for instance, cluster geographically or that individual affluence itself leads to greater optimism. Indeed, factors such as religion, faith, or cultural embeddedness could increase optimism but, potentially, could be negatively correlated with affluence (Krause, 1995, 1998). Finally, our reading of the stratification literature does not offer evidence that

optimism drives social opportunity and thus lands one in a preferential circumstance.

Second, measurement at the meso-level is challenging but by no means without a rich theoretical history. Although it is true that research in epidemiology has made important contributions to our understanding of the neighborhood–health relationship, great strides, particularly on the conceptual front, have been made in sociology. Theoretical formulations of the social aspects of community life—from Shaw and McKay (1969) to Wilson (1987) to Sampson and colleagues (Morenoff, Sampson, & Raudenbush, 2001; Sampson, Raudenbush, & Earls, 1997) to the large and related literature on social capital—in fact provide us with measures that are anything but crude (Portes, 1998; Sandefur & Laumann, 1998). Recent advances in measurement theory as applied to neighborhood-level phenomena (e.g., econometrics) provide us with innovative methodological tools to explore our theoretical suppositions (Raudenbush & Sampson, 1999). Our measure of health-related collective efficacy is a nice example. Purged of its association with a range of social compositional features of Chicago neighborhoods, it is a robust assessment of a community's capacity to come together for the common good. It is not intended to capture the type of instrumental support that a spouse or other caregiver might provide nor the existence of social networks. Rather, it captures the climate in which support might take place (so thus is not exchangeable with these other important, but independent, mechanisms).

Third, and most importantly, we must consider whether the concerns raised have bearing on our central research question. That is, do we expect that the psychological variables omitted, or the neighborhood-level variables measured imprecisely, render questionable our explanation of the link between race and health? Concerns regarding the possible confounding of psychological variables with neighborhood affluence would have to extend to racial differences in health. By this reasoning, the explanation of African Americans' lower self-rated health would be attributable to their lower levels of optimism, higher neuroticism, etc. We were unable to find evidence in support of the notion that such personality factors explain racial differences in health. Assumptions about the correlations among

race, economic disadvantage, and psychological well-being could lead to erroneous conclusions about the mechanisms responsible for racial differences in self-assessed health at older ages. With that caveat, we encourage research—integrating perspectives from a number of disciplines—that explores the myriad of factors responsible for the differences observed.

In essence, we agree that measurement and selection issues are salient. We believe, however, that there is sufficient evidence, theoretically and empirically, to indicate that neighborhood context contributes to health. Consistent with Diez Roux's approach (2004), we began with a theory, we approached it with data that have temporal ordering, and we employed an appropriate and sophisticated statistical strategy. We are not the first to suggest that community matters to older adults, but we are unique in operationalizing these concepts and methods to help us understand racial differences in self-rated health. We also agree that the field is ripe for innovation in terms of assessing the structural antecedents contributing to disparities in health across the life course. We find this exciting, despite the methodological challenges. For the remainder of comments in the Editorial, we let the work speak for itself.

ACKNOWLEDGEMENTS

We thank Linda Waite and David Meltzer for valuable comments on an earlier version of our response.

Address correspondence to Dr. Kathleen Cagney, Department of Health Studies, University of Chicago, 5841 S. Maryland Ave., MC 2007, Chicago, IL 60637. E-mail: kcagney@health.bsd.uchicago.edu

REFERENCES

- Diez Roux, A. V. (2004). Estimating neighborhood health effects: the challenges of causal inference in a complex world. *Social Science and Medicine*, 58, 1953–1960.
- Krause, N. (1995). Religiosity and self-esteem among older adults. *Journal of Gerontology: Psychological Sciences*, 50B, P236–P246.
- Krause, N. (1998). Neighborhood deterioration, religious coping, and changes in health during late life. *The Gerontologist*, 38, 653–664.
- Morenoff, J. D., Sampson, R. J., & Raudenbush, S. W. (2001). Neighborhood inequality, collective efficacy, and the spatial dynamics of urban violence. *Criminology*, 39, 517–560.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24, 1–24.
- Raudenbush, S., & Sampson, R. J. (1999). "Ecometrics": Toward a science of assessing ecological settings, with application to the systematic social observation of neighborhoods. *Sociological Methodology*, 29, 1–41.
- Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 227, 918–923.
- Sandefur, R., & Laumann, E. O. (1998). A paradigm for social capital. *Rationality and Society*, 10, 481–501.
- Shaw, C. R., & McKay, H. D. (1969). *Juvenile delinquency and urban areas: A study of rates of delinquents in relation to differential characteristics of local communities in American cities*. Chicago: University of Chicago Press.
- Wilson, W. J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy*. Chicago: University of Chicago Press.

Received October 12, 2004

Accepted October 19, 2004

Decision Editor: Charles F. Longino, Jr., PhD