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Theory and Modeling in the Study of Intimate Relationships and Health

Catherine E. Ross[1] and **John Mirowsky**[1]
[1]University of Texas, Austin, TX, USA

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What explains the benefits of marriage to good health? Do cohabitors, gay or straight, receive similar benefits from their intimate relationships? Liu and her colleagues open with this statement: “Marriage is associated with good health. Yet same-sex cohabitors cannot marry in most states in the United States and therefore may not receive the health benefits associated with marriage.” Is the benefit of marriage to health its legal status?

Marriage is a legal category that may or may not reflect underlying emotional and economic attachments (Ross 1995). Theoretically, marital status influences physical and psychological well-being because it indicates attachment and commitment to a significant other in a relationship characterized by shared economic resources (Ross 1995; Ross, Mirowsky, and Goldsteen 1990). Furthermore, marital status may reflect an outdated set of categories. When asked whether they are married, divorced, separated, never married, or widowed, more and more people find that none of these categories accurately describes their situations. Some people have partners they are living with, but not in traditional heterosexual marriages. Others have partners outside the household. Some live in households with other adults but without significant social attachments to them. The two studies here go a long way toward including some of these nontraditional union statuses. Together, they include married persons, same-sex cohabitors, different-sex cohabitors, and the never married, divorced, and widowed.

A marriage is an economic unit bound together by emotional ties (Ross et al. 1990). To understand how different nonmarried relationships influence health, one must first understand why marriage is associated with good health; enumerate those explanations, measure them, see where different types of relationships stand on these variables, and model them statistically. We call this theory and modeling. In the search for causal explanations of associations, the first step is to ensure that the association is not spurious and is really due to selection of certain types of people into certain types of partnerships. Once precursors (variables that precede in time the association of interest) are adjusted, the second step is to progressively adjust for potential explanatory variables, or mediators, that are a consequence of the variable and could help explain the association (Mirowsky 2013). Understanding effects of relationships on health requires first distinguishing between potential causes of spuriousness (precursors, such as age or education) and potential explanations (consequences, such as household income or children) (Mirowsky 2013).

Corresponding Author: Catherine E. Ross, The University of Texas at Austin, Department of Sociology, 305 E. 23rd Street, Austin, TX 78712, USA. cross@prc.utexas.edu.

Neither article presents a total nonspurious association from which to start the inquiry, because neither adjusts for education as one of the precursors of union status. This is comparable with not adjusting for age. The major precursors of union status include age, sex, race, where one lives, where one was born, and education. Precursors, such as race, need to be adjusted in a first step to ensure that the association is not spurious, due to selection. If blacks are less likely to be married than whites, and blacks have poorer health than whites, race must be adjusted to ensure that the association between marriage and health is not spuriously due to racial differences in health. The research question is not whether blacks have worse health than whites (they do); the research question is whether the nonmarried of different types have worse health than the married. If the married did not have better health than the nonmarried, if the apparent benefits were really due to race, researchers would look elsewhere than marriage in their search for social causes of health. If the well educated are more likely to be in same-sex unions than in other types of relationships, and education is associated with good health, education must be adjusted to ensure that selection on the basis of education is not spuriously producing an association between union status and health. Education precedes union status. Although there are always some reciprocal effects among variables that are not ascribed (age, sex, and race), education typically precedes the formation of unions. Education is a root cause of good health, second only to age in its impact (Ross and Mirowsky 2010; Ross and Wu 1995). Furthermore, as these articles show, education is associated with union status: Among same-sex cohabiting men, 43.9 percent have college degrees (41.9 percent among women); among different-sex cohabiting men, 15.8 percent have college degrees (17 percent among women); and among married men, 29.5 percent have college degrees (27.6 percent among women). Gay and lesbian couples have very high levels of education compared with anyone else. As a potential cause of spuriousness, education stands out. It must be adjusted before researchers precede to the next step to see if the total nonspurious association can be explained by variables that result from union status.

Denney et al.'s (2013) article further compounds this problem by adjusting for children in the household along with precursors such as age. Children in the household do not precede union status. There are always some reciprocal effects, but the major causal direction is the other way. People typically get married prior to having children, and the resulting presence of children in the household represents a big difference between married persons and everyone else. Although logically this is as large a problem as neglecting to adjust for education, empirically, it is smaller because children in the household do not have a significant effect on health in Model 1. The apparent null association between children and health is likely because children have both positive and negative effects on health, which counteract each other. One of the major negatives is the economic strain children put on households. Once income is adjusted, the association between children becomes significant, and children's (nonspecified) positive health effects are revealed.

Why might different union statuses be differentially related to health? Although neither article shows the total nonspurious association between union status and health, not due to selection, if they did, the next question would be: "What explains the association?"

The two major theoretical explanations for the benefits of marriage to good health are emotional and economic support (Ross et al. 1990). Theoretically, cohabitors fall between married couples and the nonmarried on these benefits to health. Other secondary explanations might include health lifestyle, household composition, household division of labor and decision making, sexual relations, or legal status. The goal of adjusting for explanatory variables, or mediators, is to reduce the association toward zero, to statically "explain" why unions influence health. If a researcher has a good theory, with reliable measures of the theoretical explanations (rather than crude, dichotomized measures, which

have low reliability), ideally he or she would explain the association by reducing it toward zero. This is theoretically the opposite of reducing an association to insignificance because the association was really spurious, due to selection. To model a theory, a researcher must specify the causal order of all the variables and distinguish precursors from mediators. If the adjustment of mediators reduces the association of interest this helps to explain why the association exists. Knowing that marriage is associated with good health is useful, but ultimately we want to know why.

The data do not include any social-psychological variables that might explain why union status influences health, even though theoretically one might think that the importance of marriage to well-being is that it provides emotional support. Compared with being unmarried, marriage provides emotional support: a sense of being cared about, loved, esteemed, and valued as a person. Married people are more likely to have a confidant, someone they can count on and talk to, than are people who do not live with intimate partners (Ross 1995; Ross et al. 1990). Marriage does not ensure emotional support, but it increases its likelihood. Emotional support reduces psychological distress such as depression and anxiety, which in turn improves physical health. The absence of measures of emotional support mean that interesting theoretical questions go unanswered. Women give and receive more emotional support than do men. Theoretically, a household composed of two women would have the highest levels of emotional support of any union, followed by a married household composed of a man and a woman; a household composed of two men would have the lowest levels of support of any union (although all would theoretically be higher than that of people not living with intimate partners). Is this supported empirically? Maybe. Or maybe gay men have higher levels of emotional support than straight men. Or, on the other hand, maybe gay men are less attached to their partners than men in heterosexual marriages, reducing their levels of emotional commitment and support.

The data do contain measures of the other major explanation for why marriage is good for health: economic resources. Some think that economic explanations outweigh emotional ones. People who live with intimate partners have potential earnings from both; people on their own have only their own earnings. There are economies of scale, especially in housing costs. People in partnerships may not have to pay for as many services, because partners can help out with household chores and tasks that a person who lives alone may need to pay for. Direct measures of economic hardship measure these economic advantages best, but household income is a good stand-in (poverty, in contrast, is a crude indicator of the economic resources). Household income follows from union status. Two men do not decide to live together because they are well-to-do. Their household is well-to-do because two men decided to live together.

Because men earn more than women, theoretically, a union of two men is hypothesized to have the highest household income; a married union of a man and woman, the next highest; and a union of two women, the lowest. Here the two articles, especially Denney et al.'s (2013), which includes household income and employment status, show something very interesting that does not support the hypothesis. Gay male unions do have the highest household incomes, as expected (M = $59,159), but they are followed by gay female unions (M = $50,784), which are higher than those of the married couples (M = $45,532). The reason for the unexpectedly high household incomes among the gay female unions probably has to do with female employment. In 80 percent of female unions, the women are employed, compared with 59 percent of the married women. Because zero earnings are always less than even the lowest earnings, married men and women are at a disadvantage in terms of household income, and married women are at a further disadvantage because employment is associated with good health. Like income, employment is probably a consequence of union formation. Most single people are employed. Many women quit work

once they marry and have children, although apparently lesbian women do not. This may be because they need to work to contribute to what would otherwise be a very low household income, because their unions are more equitable and avoid allocating more status and power to one partner (the employed one), or because they are less likely to have children in the household (29.2 percent vs. 49.8 percent of married women).

Another possible explanation for the benefits of marriage could be the legal status it provides, as Liu et al. suggest. What does the legal status of marriage provide that could benefit health? To answer the question empirically, we would first need a 2 × 2 table of same versus different-sex by married versus cohabiting, with all the cells filled. Because we do not have a cell for same-sex married, we do not know empirically if legal status makes a difference. We can speculate that legal status is symbolic of commitment and stability—till death do us part—with a publicly made statement that helps bond people together. The prevalence of divorce somewhat undermines this explanation. Many think that the legal status of marriage is important for practical reasons, most notably medical insurance for the spouse. Liu et al.'s article provides a good test of this idea, because they include insurance status. Not only is medical insurance not significantly associated with health, people without medical insurance have better health than the insured. With 686,846 cases, we know that insignificance is not due to the power of the test. The finding that medical insurance does nothing to ensure good health is not new, considering that most previous research has found that overall, insurance is not significantly related to health (Ross and Mirowsky 2000), but it does help us reject the hypothesis that legal marriage is good for health in part because the legally married have access to insurance that cohabitors often do not. It could be that the legal benefit itself is not great but that people who would like to be legally married, but are unable to do so, are in a situation not of their own choosing, which is stressful and damaging to health.

Probably the category of same-sex cohabitors includes people who would be married if they could be. Therefore, their commitment to each other should logically be more like that of married persons than of different-sex cohabitors. What we need to examine this empirically are measures of commitment, attachment, and stability, asked of everyone with a partner in an equivalent way, so that we can compare them statistically. Measures of the length of time in the partnership at the very least, and ideally intention to stay together, thoughts of leaving the other person, happiness with the relationship, and so on, would be useful. In the United States, different-sex cohabitors are young people (here, a mean age of 35.8 years, compared with 41.6 years for same-sex cohabitors and 47.4 years for married partners), who typically either get married or split up. On average, they do not expect to stay in the union status they are in. This is probably not as true for same-sex cohabitors.

Before one can ask, first, "What explains an association?" and second, "Under what conditions is this association stronger or weaker (or what moderates or modifies the association)?" one must first establish the basic nonspurious association. We have focused on causal modeling because explaining an association would be the first step, prior to specifying the conditions that moderate the association. Here, both articles show the following results (Liu et al. [2013] show additional statuses, but the results on marriage and cohabitation are the same): With adjustment for an incomplete set of precursors (Model 1), among men, the married report the best health, followed by same-sex cohabitors, then different-sex cohabitors, singles, widows, and the divorced; among women, the married report the best health, followed by same-sex cohabitors, then singles, different-sex cohabitors, divorced, and widows. We know some of these apparent differences are spurious, due to education-based selection, but we do not know how much. After adjustment for a mix of precursors and mediators (Model 2), among men, the married report the best health, followed by widows, different-sex cohabitors, singles, same-sex cohabitors, and divorced;

among women, the married report the best health, followed by singles, widows, same-sex cohabitors, different-sex cohabitors (in Denney et al.'s [2013] article, the two types of cohabitors are exactly the same), and the divorced. The big difference is between married people and everybody else. Married people report significantly better health than anyone else, with all variables adjusted, which we would expect, because an important set of explanatory variables associated with emotional support, attachment, and commitment is not adjusted. The necessary next step is to distinguish between selection and causation, and to measure and include a richer set of mediators, to answer the question: "Gay or straight: What difference does it make?"

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Biographies

John Mirowsky is a professor in the Department of Sociology and the Population Research Center at the University of Texas in Austin. He studies social aspects of health and well-being, particularly as they evolve over adulthood. He is the 2012 Pearlin Award recipient. Recent publications include "The Interaction of Personal and Parental Education on Health," in *Social Science and Medicine* (2011), with Catherine Ross; "Cognitive Decline and the Default American Lifestyle," in the *Journal of Gerontology: Psychological Sciences* (2011); and "Wage Slavery or Creative Work?" in *Society and Mental Health* (2012).

Catherine E. Ross is a professor in the Department of Sociology and the Population Research Center at the University of Texas. She studies social inequalities in physical and mental health, the sense of control versus powerlessness, and health lifestyle. She is the 2010 recipient of the Pearlin Award for lifetime contribution to the sociology of mental health. Her current research, funded by the National Institute on Aging, is titled "Reconceptualizing Socioeconomic Status and Health." In 2012, she published "Education and the Gender Gaps in Health and Mortality" with Ryan Masters and Robert Hummer in *Demography*. Her books, with John Mirowsky, include *Education, Social Status, and Health* and the second edition of *Social Causes of Psychological Distress* (Aldine Transaction, 2003).