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The Sociology of Suicide

Matt Wray,¹ Cynthia Colen,² and Bernice Pescosolido³

¹Department of Sociology, Temple University, Philadelphia, Pennsylvania 19122; email: mwray@temple.edu

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Durkheim, social integration, social influence, social networks, mortality, health and illness

Abstract

Since Durkheim's classic work on suicide, sociological attention to understanding the roots of self-destruction has been inconsistent. In this review, we use three historical periods of interest (pre-Durkheim, Durkheim, post-Durkheim) to organize basic findings in the body of sociological knowledge regarding suicide. Much of the twentieth-century research focused on issues of integration and regulation, imitation, and the social construction of suicide rates. Innovations in the twenty-firstcentury resurgence of sociological research on suicide are described in detail. These newer studies begin to redirect theory and analysis toward a focus on ethnoracial subgroups, individual-level phenomena (e.g., ideation), and age-period-cohort effects. Our analysis of sociology's contributions, limits, and possibilities leads to a recognition of the need to break through bifurcations in individual- and aggregate-level studies, to pursue the translation of Durkheim's original theory into a network perspective as one avenue of guiding micro-macro research, and to attend to the complexity in both multidisciplinary explanations and pragmatic interventions.

²Department of Sociology, Ohio State University, Columbus, Ohio 43210; email: colen.3@osu.edu

³Department of Sociology, Indiana University, Bloomington, Indiana 47405; email: pescosol@indiana.edu

INTRODUCTION

As an object of sociological inquiry, suicide has had a long and strange career. At different moments since the birth of the discipline, it has variously served as a foundational subject for the establishment of the discipline, as a proving ground for methodological debates, and as an index of social integration nonpareil. Although sociological investigations of suicide flourished through the 1970s, the closing decades of the twentieth century saw sociological interest in the topic wane. This same period, however, witnessed increased attention to suicide from medical professionals, public health researchers, expert policy makers, and legislators, culminating in The Surgeon General's Call to Action to Prevent Suicide (U.S. Public Health Service 1999), the Institute of Medicine's Reducing Suicide: A National Imperative (Goldsmith et al. 2002), the Centers for Disease Control's (2008) report on preventing suicide through social connectedness, the Garrett Lee Smith Memorial Act authorizing millions in federal funds for suicide prevention (2004), and the implementation of comprehensive suicide prevention plans in dozens of states.

All these policy reports have called for social scientists to engage in a national research agenda designed to reduce rates of suicide, but the response from sociologists has been weak at best. As a result, sociological insights are seldom incorporated into trends and priorities in suicide research. Suicide continues to be framed and understood as a problem faced by individuals, even when social and contextual factors are acknowledged. Given this individualistic frame, biomedical and psychiatric perspectives have become paradigmatic, with research on individual-level risk factors generating prevention strategies aimed at high-risk individuals (usually understood as those with a history of mental illness, suicidal ideation, or previous attempts). The models for suicide prevention that flow from this framework tend to neglect social and ecological determinants or include them only in superficial and cursory ways.

We argue that the present situation is problematic for sociology, for the scientific research agenda on suicide, and for the creation of solutions to this pressing social problem. In an age when biomedicine and genomics tend to dominate scientific and public policy debates, including the understanding of health and mortality outcomes, sociological research that strictly follows its own disciplinary boundaries is out of step with current emphases on complexity and multidisciplinarity. Equally undesirable is the decision to abandon suicide research to other disciplines and perspectives. In the following four-part review, we briefly place sociological research on suicide in historical context; sketch the outlines of suicide research from psychology, biomedicine, and public health; describe contemporary perspectives on suicide within sociology, identifying current theoretical and methodological challenges; and offer suggestions for future sociological research, arguing for a more multidisciplinary and problemsolving approach to the sociology of suicide.

THE SOCIOLOGY OF SUICIDE IN HISTORICAL CONTEXT

Historians (e.g., Fedden 1938, Minois 1999) have provided in-depth intellectual histories of social commentary and research on self-destruction; there is neither need nor space for us to do this here. Instead, we organize sociological writing on suicide into three eras centered on sociology's fundamental, landmark contribution, Durkheim's (2006 [1897]) *On Suicide*.

Pre-Durkheimian Approaches

If, as Richard Sennett (2006, p. xi) has written, Durkheim "taught the modern world how to think about suicide," there were nonetheless several modern thinkers on whose work Durkheim built. From a sociology of knowledge perspective, it is of little surprise that he relied heavily on "general frames of reference" and "specific knowledge and forms of thought" (Douglas 1967, p. 13) current among late-nineteenth-century European intellectuals. These thinkers were engaged in trying to

identify the forces behind the apparent increase in national suicide rates coincident with the rise of modernity, which itself was presumed to be loosening the chains of agrarian society and providing greater freedoms to the individual. Most influential among these thinkers were the moral statisticians, including Quetelet (1842) and Morselli (1882), who collected, calculated, and attempted to inductively analyze a large body of suicide statistics. What impressed these moral statisticians most was the regularity and stability of national suicide rates year to year, as well as the overall rise in suicide rates in the modern era.

Against prevailing views that conceptualized suicide as a matter of free-willed individuals acting out of private despair, the moral statisticians reasoned that such systematic, geographic, and temporal patterns pointed to forces larger than individuals. In addition to this core belief, these thinkers shared assumptions that suicide was morally problematic and that a persuasive explanation or theory of suicide would have to discover and empirically document whatever force or forces determined and regulated suicide rates in the modern world. Durkheim shared most of these assumptions with his contemporaries (Giddens 1965).

Masaryk (1970 [1881]) preceded Durkheim in looking to the forces of modernization for explanations about rising rates. He focused on suicide as an unintended consequence of increasing levels of education, arguing that the abandonment of traditional ways of thinking and a preference for rational reflection opened up the idea of suicide as a solution to individual problems. Tarde (1903 [1895]) countered the theories of moral statisticians by positing geographic and temporal clustering of suicides could also be caused by various kinds of imitative behavior, which, along with innovation, he argued, constituted the fundamental drivers of all social interaction. In this view, which resonates strongly with social learning theory of today, humans often imitate the actions and behaviors of other people in their proximate social environments, especially when they regard those actions as meaningful and significant and hold those they are imitating in high esteem. Thus, suicides in a given time and place can produce more suicides in chain-reaction fashion, leading to the geographical pockets of high suicide rates that the moral statisticians had documented.

Durkheim's Great Leap

While agreeing that modernity was ultimately to blame for rising suicide rates, Durkheim took a more analytical view than did Masaryk and the moral statisticians, while explicitly rejecting Tarde's imitation theory. Instead, he sought to understand how negative meanings and emotions were produced in individuals and groups during times of dramatic social change and how such changes made some groups more vulnerable than others to self-destruction. He provided a multifaceted theoretical scheme that privileged social explanations and dismissed, in strongly polemical terms, other popular lay and scientific explanations, such as mental illness, imitation, climate, and temperature (Pope 1976).

The result of his efforts was a fourfold typology of suicide derived from the intersection of two major axes, which he termed integration and regulation. By integration, he targeted the sense of social belonging and inclusion, the love, care, and concern that can flow (or not flow) from social ties. Well-integrated groups, he argued, enjoy stable, durable, and cohesive social ties. Individuals in such groups are supported in their lives, particularly during times of personal crisis, thereby reducing their vulnerability to suicide.

Durkheim described the nature and influence of social integration in family, religion, and political domains and famously concluded from his empirical analyses that "suicide rates vary inversely with the degree of integration of

¹Since Durkheim's *On Suicide* has been the subject of several generations of sociological commentary (see Halbwachs 1978 [1930], Douglas 1967, Pope 1976), we offer only a brief sumary here. For insightful overviews, see Pickering & Walford (2000)

the social groups to which the individual belongs" (Durkheim 2006 [1897], p. 224). However, this finding has often been taken in isolation from his other major conclusion: that groups that tie together individuals in loyalty or love too closely also contribute to group suicide rates. Individuals who are overly integrated into social structures (for example, martyrs or war heroes) are also at risk of suicide precisely because these groups (and the individuals within them) value the needs of the group over the individual's need to survive.

Although Durkheim never explicitly defined social integration, it serves as the core insight that has dominated, and continues to dominate, sociological thinking and analysis (Pope 1976, Stack 1994, Baudelot & Establet 2008 [2006]). Yet Durkheim was quite clear that he was also concerned with what he called regulation, the monitoring, oversight, and guidance that come from social ties. For Durkheim, individuals require moral guidance and external restraint because without them their desires and expectations will exceed their grasp, with the resulting failures and frustrations leading to continuous states of despair.

Thus, regulation, as well as integration, is central to his theory, with both over- and underregulation producing suicide.² The social forces of integration and regulation interact in U-shaped fashion to form the basis for Durkheim's fourfold typology of suicide that arises in social structures characterized by extremes. Egoistic suicide, occurring when integration is low, and altruism, occurring when integration is high, both represent situations where care and concern deviate from moderate

Post-Durkheim: Testing, Elaborating, Rejecting, and Transforming

Durkheim's On Suicide (2006 [1897]) spurred American suicide research in the first half of the twentieth century. Throughout the post-Durkheim era, sociologists have kept social integration as a touchstone theme, although it has often been called by other names, such as social isolation (Trout 1980), social cohesion (Kawachi & Kennedy 1997), or social support (Berkman et al. 2000).3 Ecological modeling of urban suicide, refracted through the prism of the urban sociology of the Chicago School, became a sociological mainstay during the 1920s-1950s (Cavan 1928, Schmid 1928, Porterfield 1949, Sainsbury 1955; see Stack 1994 for an overview). These studies blended statistical data on suicide rates with social observation of the geography of communities and neighborhoods to assess how individuals and groups were influenced by their urban environments.

With community-based ecological studies falling out of fashion by the late 1950s,⁴

levels. Similarly, anomic and fatalistic suicides represent the increased risk that comes from social structures with under- or overregulated systems, respectively (Bearman 1991, Pescosolido 1994, Pescosolido & Georgianna 1989, Smelser & Warner 1976). When and where forces of integration and regulation are extremely low or extremely high, more people become more vulnerable to suicide. Only when these forces are balanced, when individuals feel in harmony with their own needs and the demands of the group, does the suicide rate diminish.

²As Pescosolido (1994) points out, this duality and symmetry are often missed because Durkheim relegated his fourth type (fatalism) to a now infamous footnote where he suggests that overregulated social structure only characterizes premodern societies. As Coser & Coser (1979) suggest in their analysis of the Jonestown mass suicide in 1978, however, Durkheim may have been incorrect in this assertion. The present-day tendency to disregard the regulation side of the theory may also be a result of Johnson's (1965) influential and more parsimonious contention that Durkheim's argument could be boiled down to positing integration as the "one cause of suicide."

³Interactionist studies of suicide have occasionally challenged the Durkheimian frame. Goffman (1969) offered his oblique reflections on suicide in the wake of a personal loss, and Garfinkel (1967) and Sacks (1995) both produced ethnomethodological accounts of suicide prevention centers and hotlines. Yet these remarkable studies have not had lasting influence within the discipline.

⁴This may be the result of Robinson's (1950) influential arguments about the ecological fallacy, or a reflection of the growing challenges to the functionalist paradigm within the discipline, or, as Coleman (1986) argued, a shift in

three major sociological statements on suicide emerged in the decades that followed. First, drawing insights from psychoanalytic theory, Henry & Short (1954) offered their aggressionfrustration model, hypothesizing that suicide and homicide are opposite sides of a single phenomenon-violent aggression-which can only be understood by taking into account sociological and psychological variables. In their account, increases in frustration lead to increases in aggression. In turn, increases in aggression lead to increases in lethal violence. Violence directed outward against others produces homicide; violence directed inward against the self produces suicide. Whether individuals perceive others or themselves as the source of the frustration, they argued, varies predictably by class and status. Low-status groups blame others and have low suicide rates; high-status groups blame themselves and have high suicide rates. Although the theory was taken up by sociologists and criminologists, subsequent studies produced inconsistent findings on status and suicide.5

A decade later, Gibbs & Martin (1964) issued the second major statement of the era by developing a status integration theory that dismissed the distinction Durkheim made between integration and regulation. They postulated that conflict between social roles related to age, sex, occupation, and marital status (variables from which they constructed an index of status integration) was the crucial determining factor in suicide. Their approach was more formally theoretical, more accurately observable, and therefore more testable than Durkheim's concepts of social integration and regulation.

Specifically, in social circumstances in which individuals experienced a high degree of irresolvable role conflict, they reasoned, suicide rates increased. They found solid empirical support for their theory. However, despite the promise of this approach, it was not widely adopted either within or outside the discipline.

In the third major statement from this era, Douglas (1967) offered a tightly reasoned critique not only of Durkheim, but also of all sociological research on suicide. His major complaint was essentially Weberian—the Durkheimian perspective on suicide was flawed because it failed to take into account the social and cultural meanings of suicide. Moreover, it failed to consider suicide as a meaningful social action undertaken by individuals and failed likewise to attend to the variation in definitions of suicide observable among those who were officially charged to determine if a suicide had occurred (i.e., coroners and medical examiners). From this last point, Douglas developed a skeptical argument about the validity and reliability of official suicide statistics, leading him to reject quantitative approaches to suicide research altogether. Rather than a Durkheimian typology of suicides, what sociology needed most, he argued, was a typology of "suicidal actions as socially meaningful actions" (Douglas 1967, p. 255). In the years that followed, sociologists tended to either ignore or reluctantly acknowledge the importance of meaning and the issues of unreliable statistics that Douglas raised.

Other sociologists of this era battled Durkheim on a different front. Phillips, revisiting Tarde, suggested in a series of articles (Phillips 1974, 1979; Phillips & Carstensen 1986; Phillips & Paight 1987) that imitation—particularly imitation of celebrity suicide—plays a bigger role in shaping suicidal behavior than Durkheim allowed. Phillips dubbed this phenomenon "the Werther effect," after Goethe's story of a young artist's suicide that spawned multiple "copycat" suicides (see Baron & Reiss 1985 for an important methodological critique). Other sociologists continued both U.S. (e.g., Breault 1986) and cross-national (e.g., Stack 1983) work in a Durkheimian frame,

sociological focus away from community structures to national ones. We remain uncertain about the causes of the shift.

⁵Gold (1958, p. 652) criticized Henry & Short's (1954) assumption "that members of higher-status categories are less restrained externally than their lower-status counterparts". Gold's revision of Henry & Short's theory placed a strong emphasis on class as the crucial variable determining an individual's choice between homicide and suicide. For recent evidence that poor, low-status groups can have high rates of suicide, see Rehkopf & Buka (2006).

with Maris (1981) adding a life course perspective on "suicidal careers."

As the preceding paragraphs suggest, the post-Durkheim era of sociological research on suicide is quite difficult to summarize. Although Durkheim continued to exert paradigmatic influence on the ways that sociologists conceptualized and carried out research on suicide, voices of caution and dissent emerged, offering a confusing series of friendly amendments, skeptical arguments, and plausible alternative hypotheses. Simply put, sociology entered into a period of disciplinary confusion and uncertainty regarding one of its canonical subjects, and the Durkheimian consensus began to fray.

PARALLEL RESEARCH: PSYCHOLOGICAL, BIOMEDICAL, AND PUBLIC HEALTH PERSPECTIVES

The ways that sociology as a discipline has conceived of suicide as an object of scientific inquiry diverge sharply from the ways that other disciplines have done so. Although it is outside the scope of this article to elaborate this point, a few of the contours and consequences of this disciplinary divergence are critical to future research in sociology.

Historically, psychological explanations of suicide have focused squarely on individuals and their conflicting internal emotional and primal drives as well as their struggles over life's meaning. These themes stand at the core of psychoanalytic thought (Zilboorg 1936, Menninger 1938). Research into the psychodynamics of suicide flourished from the 1930s to the 1980s, when it was challenged within psychology as lacking empirical rigor (see Maltsberger & Goldblatt 1996 and Jamison 1999 for overviews). However, the use of the psychological autopsy survived. This retrospective case study approach, pioneered by Zilboorg in the 1930s, combines medical histories, police reports, medico-legal investigations, and indepth interviews with friends and relatives of people who committed suicide, with the goal of constructing a more detailed postmortem than

that offered by forensic autopsy alone. Studies using psychological autopsy data are the source of the widely reported statistic that 90% or more of individuals who kill themselves have a history of mental illness (Conwell et al. 1996). Although the method has been embraced by some sociologists—notably Maris (1981)—it has not entered the mainstream of sociological research on suicide, even as the development of case-control psychological autopsies increased methodological rigor (Cavanagh et al. 2003).

Following theoretical shifts in other scientific disciplines, psychodynamic models of suicide have been displaced by psychiatric and medical models that look to discover biological and genetic causes. This research investigates physiological responses to stressors particularly the role that neurotransmitters such as serotonin and norepinephrine play in this system—as well as the potential influence of genetics in the etiology of suicide (Goldsmith et al. 2002). Findings highlight the association of suicidality (i.e., suicidal ideation or attempts) with (a) dysregulation of the hypothalamicpituitary-adrenal axis, the primary stress response system (Brunner et al. 2001); (b) variation in the functioning of the serotonergic and noradrenic systems, which help regulate aggression and impulsiveness, as revealed by brain-mapping techniques and postmortems (Arango & Mann 1992); and (c) genetic factors assessed through family studies (Statham et al. 1998), particularly studies of adoptees from families with multiple suicides (Wender et al. 1986) and twin studies (Roy et al. 1991). The search for candidate genes has thus far been inconclusive.

The 1990s also witnessed growing attention to suicide within the public health research agenda (U.S. Public Health Service 1999). Research focused largely on identifying populations at greatest risk for suicide and on developing prevention and intervention strategies to reduce suicide rates and risk of suicide (Knox et al. 2004). In the Durkheimian tradition, research on the spatial distribution of suicide found it was concentrated more heavily in rural than urban areas in the United States (Branas et al. 2004).

Public health researchers have also looked to the significant role played by access to lethal means (e.g., guns, toxic gas, bridges, and even acetaminophen) and on efforts to reduce access, which were shown to have both temporary and permanent effects on lowering suicide rates (Mann et al. 2005, Miller & Hemenway 2008).

There are, of course, the usual reasons for sociologists to be skeptical regarding the theories and evidence about suicide put forth by other disciplines. In most cases, the social and ecological factors surrounding suicide are poorly considered, if at all; the causal pathways considered important for suicide are far narrower than sociological thinking requires; and the methods and logics of inquiry do not always match sociological standards. Yet this skepticism toward other disciplinary perspectives, however warranted, does not appear to be serving the discipline well. While there is evidence that psychology, biomedicine, and public health have adopted an open and multidisciplinary stance toward understanding suicide (e.g., Duberstein et al. 2004), sociology has yet to do the same.

The dangers of this insularity are threefold. First, sociologists may fail to identify innovative and sociologically interesting approaches to suicide that arise in other disciplines. Second, other disciplines will continue to regard sociology as having produced few new insights into the topic since 1897. This perception, although inaccurate, is not wildly so given that sociological research on suicide has been dwarfed by research on suicide in other disciplines. According to a recent survey of over 30,000 academic articles on suicide published since 1980, only about 400 (1.3%) could be categorized as sociological (Agerbo et al. 2009, reported in Scourfield et al. 2010). Third, sociologists may miss opportunities to demonstrate our theories and evidence of how the biological processes presumed to be fundamental by biomedical researchers are in fact causally impacted by social and environmental contexts (House et al. 1988). We return to these points in our discussion below and offer more explicit suggestions about the contributions sociology can offer these other disciplines.

CONTEMPORARY SOCIOLOGICAL PERSPECTIVES

In order to assess major sociological research on suicide over the past two decades, we searched electronic databases for articles with "suicide" in the title or abstract in four of the toptier sociological journals, American Journal of Sociology, American Sociological Review, Journal of Health and Social Behavior, and Social Forces, for the period 1990-2009. We excluded specialized journals on suicide, such as Suicide and Life-Threatening Behavior and Archives of Suicide Research, as well as journals with a high degree of multidisciplinary content, such as Social Science and Medicine, in order to keep the articles under review to a manageable number and because deciding which articles in multidisciplinary journals were clearly sociological in nature proved to be an exceedingly subjective process. Moreover, limiting our sample to four top sociology journals met our goal of focusing on and assessing high-quality sociological research on suicide.

Our search netted 41 articles, each of which was read by at least two of us. **Figure 1** illustrates the percentage of total articles in each of the four journals for which the major substantive focus is suicide and documents changing trends over the period of interest. Although the absolute number of articles on suicide fluctuates over time, percentages remained exceedingly small and failed to rise above 3%. In what follows, we highlight recurring and overlapping themes, focusing on articles that represent each theme particularly well.

Theoretical Themes

The theoretical themes in our sample tapped into classic sociological foci (e.g., Durkheimian theory and imitation) as well as new ones (e.g., previously understudied groups, such as women and racial minorities).

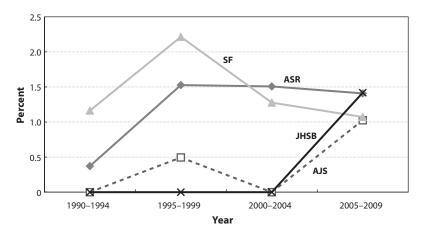


Figure 1

Articles on suicide as a percentage of all published articles, by journal. Journals: ASR, American Sociological Review; AJS, American Journal of Sociology; JHSB, Journal of Health and Social Behavior; and SF, Social Forces.

Social stratification and suicide. One of the more novel and promising themes that emerges from recent empirical efforts concerning the social patterning of suicide is the emphasis on how mechanisms of stratification may interact either to promote or to prevent suicide. Although several studies address how rates of suicide vary according to existing social cleavages such as race, class, and gender (Almgren et al. 1998, Burr et al. 1999, Campbell & Troyer 2007, Ellison et al. 1997, Girard 1993, Krull & Trovato 1994, Kubrin et al. 2006, Lehmann 1995, Pampel 1998, Wadsworth & Kubrin 2007), a notable few integrate theories of stratification in novel ways to deepen our understanding of the complex web of social forces that drive suicidal acts.

Racial disparities. Research on racial/ethnic disparities in suicide incorporates perspectives from criminology, population health, and social psychology to gain a more nuanced understanding of why racial minorities face either reduced or heightened risk of suicide. These efforts extend beyond Black/White differentials to include Hispanics, for whom the risk for suicide is low, and Native Americans, for whom the risk is high.

Kubrin and colleagues (2006) employ William Julius Wilson's deindustrialization hypothesis to explain the historical increase in suicide among Black men in the United States. Incorporating measures specifically constructed to capture Black structural disadvantage at the metropolitan level (e.g., Black/White inequality), the authors find that Black disadvantage is a significant predictor of young (15–34) Black male suicide rates. Moreover, absolute levels and recent fluctuations in industrial sectors of the local labor market are positively associated with increases in suicide rates for this subpopulation.

Similarly, Wadsworth & Kubrin (2007) examine structural correlates and cultural factors to explain relatively low levels of suicide among U.S. Hispanics. Asking whether the ethnoracial and socioeconomic composition of an area moderates the association between individual race/ethnicity and suicide, they find important differences by nativity. For foreign-born Hispanics, higher levels of economic inequality between Blacks and Hispanics are significant predictors of lower suicide rates. For nativeborn Hispanics, higher levels of economic inequality between Whites and Hispanics are significant predictors of higher suicide rates. These somewhat surprising findings suggest that foreign-born Hispanics are likely to use Blacks as a comparison group, whereas their

native-born counterparts appear to look toward Whites to provide a source of social assessment.

Focusing on individual suicidal ideation, rather than aggregate suicide rates, Campbell & Troyer (2007) investigate the extent to which racial misclassification negatively impacts a range of psychological outcomes. Using data from the National Longitudinal Survey of Adolescent Health (Add Health) to identify Native Americans whose racial identity was incorrectly identified by interviewers, they find racial misclassification is positively associated with both suicidal thoughts and attempts. Additionally, for Native Americans, residing in a neighborhood with a significant Native American population seems to be protective against suicidal ideation. This finding suggests that the presence of a critical mass of samerace residents may balance levels of social integration and regulation.

Gender disparities. One of the most classic findings in suicide lies in sex and gender differences, with men being three to four times more likely to commit suicide than women (Center for Disease Control 2008). Although Durkheim argued that women have internal, biological protections from suicide, sociologically the protections for women have traditionally been linked to closer ties to friends and family as well as to a lower emphasis on occupational attainment (Bielby & Bielby 1984, Gerson 1986, Eccles 1987, Maume 2006).

Using aggregate data from 18 developed nations, Pampel (1998) examines whether movements toward social equality for women reduce disparities in suicide by sex. His findings reveal a curvilinear trend in female suicide rates over time. As women's labor force participation increases and marital stability decreases, the differential in suicide rates between men and women is reduced, with women's rates rising relative to men's. However, as female workforce participation continues to escalate, women's rates begin to fall. Notably, the return of the female suicide advantage occurs more quickly in nations that can be characterized as collectivist in nature. Pampel theorizes that

such societies can adapt quickly and more appropriately to women's changing needs. Similarly, Krull & Trovato (1994) focus on temporal changes in suicide in Quebec, finding that numerous indicators of decreased integration (e.g., divorce, childlessness, irreligiosity, and unemployment) impact suicide rates for men. However, only marital dissolution has a similar effect on female suicide rates.

Religious disparities. Given the centrality of religion in Durkheim's On Suicide, both classic and recent work in sociology examines the extent to which suicide rates are associated with religious affiliation, attendance, and beliefs. By the late 1980s and early 1990s, research suggested that the unique denominational history of the United States as well as distinct religious hubs required a rethinking and adaptation of Durkheim's original hypotheses. These studies found a continued protection from suicide in areas with a greater proportion of Catholics. However, the effect of Protestantism was now clearly bifurcated. The presence of liberal groups (e.g., Episcopalians) predicted higher rates, whereas the presence of evangelical groups predicted rates similar to those in areas with substantial Catholic profiles. Even more surprising, religious effects were regional, perhaps reflecting a web of support organizations as well as coreligionists (Pescosolido & Georgianna 1989, Pescosolido 1990).

In our sample of recent work, Ellison and colleagues (1997), constructing a unique measure of religious homogeneity (the Herfindahl index), follow in this tradition by examining aggregate suicide rates from 1979–1981 across nearly 300 standard metropolitan statistical areas. They find that high levels of religious homogeneity are associated with lower suicide rates. Moreover, there appears to be significant geographic variation in the strength of this relationship, with the strongest effect on rates in the Northeast and the South.

The aforementioned studies indicate that the social processes involved in shaping suicide risk and completion vary according to social cleavages, namely race/ethnicity, gender, and religion. For example, it appears that as women's roles in society move away from the family and toward the workplace, gender disparities in suicide contract and then expand. This type of curvilinear pattern makes sense given that, as a critical mass of women enter the labor force, such a seismic demographic shift becomes less threatening, both to the existing male-dominated social structure and to the identities of individual women. Although findings regarding gender and religious disparities in suicide add an important layer of nuance to the body of research, the strength of recent empirical work emerges from studies that examine variations in suicide by race. Notably, these efforts have not been hampered by a heavy reliance on a Black/White dichotomy that typically dominates stratification research; rather, suicide risk and completion among groups as disparate as young African American men, foreign- and native-born Hispanics, and Native American youth have been carefully explored. Moreover, differentiations within groups have been conscientiously examined, the unique structures of national data sets have been exploited, and predictive measures have been skillfully constructed by drawing upon established stratification theory.

Integration and regulation. Not surprisingly, much new research continued to rely on Durkheimian theory, placing social integration—the presence of stable and durable relationships—squarely in the center of their analyses (Gibbs 2000; Kposowa et al. 1995; Maimon & Kuhl 2008; Stockard & O'Brien 2002a,b; Thorlindsson & Bjarnason 1998; van Tubergen et al. 2005). Most noteworthy are efforts to clarify, update, and challenge Durkheim by (a) modeling the effects of integration on the individual rather than aggregate level, (b) reexamining the neglected theme of regulation, and (c) revisiting the theory of status integration.

Thorlindsson & Bjarnason's (1998) study of suicide attempts among Icelandic youth models the relationship between social integration and suicide on the interpersonal level. They find that familial integration, measured by

levels of emotional and material support within the family, protects youth against suicide attempts. Furthermore, both familial integration and regulation, measured by parental rule setting and monitoring, protects against imitation effects.

Gibbs (2000), following up on earlier work (Gibbs & Martin 1964, 1974), examines U.S. county-level data from 1980 by asking whether status integration is inversely related to suicide rates because of the level of marital integration, occupational integration, or both. Earlier research (Stafford & Gibbs 1985) had indicated that the protective effects of occupational integration were stronger than marital integration and that this varied across age, gender, and racial groups. Gibbs (2000) finds that, although both types of integration are important, the effect of marital integration is stronger and linear.

Focusing on White males, Kposowa et al. (1995) use individual-level data from the 1979–1985 National Longitudinal Mortality Study to test hypotheses about social integration. Comparing death from suicide to death from other causes, they find only mixed support for the protective effects of marriage. Men who are divorced, are widowed, or live alone are at greater risk for suicide; however, after controlling for socioeconomic status, single and widowed men are not. They also report different protective effects for urban versus rural residents and immigrants versus native-born, findings that both support and contradict Durkheim's original ideas.

Social imitation and cultural influence. Renewed interest in the dynamics of microinteractions and cultural arguments that emphasize shared meanings and habits have led some sociologists to reconsider Durkheim's claims of the irrelevance of timing on suicide. For example, Baller & Richardson (2002) take up Tarde's argument that spatial clustering of suicides could be produced by social imitation, testing these competing theories using data on geographic patterning of suicides in France in the 1870s and in the United States in 1990. Controlling for the geographic clustering of

multiple dimensions of social integration, they find evidence for an imitation effect in France and in most U.S. counties, except those in the American West (see also Thorlindsson & Bjarnason 1998 on Iceland). Interestingly, they argue that the absence of imitative effects in the West—a region of very low social integration—may suggest that as social integration decreases and isolation from community life becomes more prevalent, susceptibility to imitative suicide decreases as well.

Returning to the frustration-aggression model developed by Henry & Short (1954), Huff-Corzine et al. (1991) compare structural influence (i.e., poverty rates) with cultural influence (i.e., Southerness measured rather weakly as percent born in the South) to estimate their effects on state-level lethal violence rates of Whites and Blacks from 1969-1971. They find that state levels of severe poverty correlate positively with violence rates for both racial groups. However, cultural influence does not, although it does affect the ratio of homicides to suicides. Poverty rates increase the proportion of suicide to homicide in the rates of White suicide, but not Black suicide. The authors conclude that a merger of structural and cultural explanations for violence is long overdue and that greater specificity regarding how cultural mechanisms influence regional suicide and homicide rates is required.

Using a unique Swedish data set of 1.2 million adults who lived in greater Stockholm in the 1990s, Hedström et al. (2008) pursue the question of social influence by asking whether persons who are exposed to suicides in their families or workplaces are at greater risk of suicide themselves. Controlling for other risk factors, men exposed to a suicide in the family are 8.3 times more likely to kill themselves than unexposed men. Workplace exposures have a smaller but still impressively large effect (3.5) on men. The authors note, somewhat counterintuitively, that from a suicide prevention standpoint workplace suicides actually pose the greater risk because workplaces are typically much larger than families, and as a result greater numbers of individuals are exposed. This is the first study to document exposure effects for adults; previous work targeted exposure to suicide among adolescents.

Taken together, these articles, along with others not discussed here (Pridemore 2006, Stack & Gundlach 1992, Trovato 1998), highlight the influence of imitation and cultural norms on the patterning of suicide rates and suggest that a return to the Tardean themes dismissed by Durkheim is warranted. Cultural sociologists and others interested in mechanisms of social influence should take special note.

Methodological Themes

In recent work, suicide researchers tackled methodological issues related to age, period, and cohort (APC) effects; multilevel analysis; and the construction and use of official suicide statistics.

Age, period, and cohort effects. Disentangling concurrent and longer-term consequences of APC characteristics is an issue fraught with methodological challenges. Age effects refer to specific conditions that uniquely shape the mortality profiles of individuals within a given age range. Period effectshistorical fluctuations in mortality that impact all age groups—are specific to the period immediately preceding or during which suicide rates are tallied. These may provide clues to which macro-social and -economic trends may be influencing population susceptibility to suicide within a given time frame. Cohort effects refer to historical fluctuations in mortality rates across groups of individuals who share a unifying event (e.g., all those born in the same year or birth cohort). When an underlying cause of death is thought to be significantly related to early life exposures, suicide risk may be subject to unexamined cohort effects, as well as the period and age effects mentioned above.

Arguing that there is a link between differential opportunity structures experienced by birth cohorts and varying degrees of integration as well as regulation, Stockard & O'Brien (2002b) investigate whether shifts in age-specific

suicide rates in the United States between 1930 and 1995 were influenced by cohort characteristics such as family size and structure. Drawing on Elder (1994) and Easterlin (1987), they underscore the importance of considering the context within which members of a cohort undergo specific life course transitions. They find that, independent of age and period effects, cohort variation—especially the relative size of the cohort and the predominance of nonmarital childbearing—is predictive of higher rates of suicide.

In a similar vein, Pampel & Williamson (2001) further our understanding of how social conditions, such as cohort size, family characteristics, and sociopolitical equality, impact agerelated trajectories in suicide and homicide in high-income nations. Employing cause-specific mortality data from 18 countries for the period between 1955 and 1994, the authors demonstrate that increases in the size of the youngest (15-24) or oldest (65-74) cohorts as well as recent changes in traditional family roles and family stability (measured by an index composed of rates of fertility, marriage, divorce, and female labor force participation) are associated with increases in youth suicide rates relative to elder suicide rates. These results are more robust for rates of male suicide than for rates of female suicide. However, the findings concerning the effect of country-specific sociopolitical equality on suicide rates have little to do with cohort variation. Mirroring the results of Pampel's previous study of gender disparities in suicide discussed above, this study suggests that a nation's degree of collectivism significantly affects group suicide rates.

Multilevel data and modeling approaches.

Reflecting recent advancements in data collection, quality, and analytic tools, suicide researchers have capitalized on the proliferation of detailed multilevel data sets and analogous methodological strategies. Following a Durkheimian approach, Maimon & Kuhl (2008) employ data from Add Health to investigate possible reasons for the recent increase in suicide attempts among American youth in their teens and early twenties. Because of the multilevel structure and purposeful sampling strategy of these data, the authors can examine integrative social forces within and between the individual, familial, school, and neighborhood contexts. Empirical findings suggest that the proportion of conservative religious adherents in a neighborhood is negatively associated with individual-level suicide attempts, even after controlling for additional covariates. Moreover, depression appears to be a significantly stronger predictor of suicide attempts within secular as opposed to religious neighborhoods.

To refine the ongoing debate regarding religion and suicide further, Van Tubergen and colleagues (2005) combine both individual- and aggregate-level information from all suicides in the Netherlands from 1936–1973. They seek to differentiate between the effects of community norms and support on suicide rates among various religious denominations. Based on the finding that regardless of religious affiliation or attendance, suicide rates decrease as the proportion of church members within a given municipality increases, the authors conclude that community norms are a more salient factor in the prevention of suicide. They also note that as the Netherlands grew more secular over time, the influence of municipal religious composition had a weaker impact on suicide rates. Unfortunately, this study suffers from a lack of basic individual-level statistical controls, including age and sex, as well as a lack of key measures that could adequately capture complex social phenomena such as community norms and support.

Although not multilevel in the strictest sense, Norström's (1995) study triangulates ecological and individual data from multiple sources to estimate the extent to which alcohol abuse increases suicide risk among Swedish men. A heavy reliance on alcohol is cast not simply as a psychological or health-related risk factor for suicidal outcomes; rather, it is conceived of as an indicator of a serious breakdown in the social system. Employing standard epidemiologic measures of attributable risk, Norström calculates the proportion of the

age-adjusted male suicide rate that can be tied to alcohol abuse, divorce, and unemployment. Alcohol abuse and unemployment account for approximately 37% and 10%, respectively, of male suicides, whereas, surprisingly, divorce does not appear to be a significant factor.

Although the incorporation of multilevel data and modeling strategies into the study of suicide stands to advance our understanding, we caution against viewing these developments as a panacea to the methodological challenges that continue to confront researchers in this area. We return to this seemingly minor point below.

The construction and (mis)use of official suicide statistics. As noted above, Douglas (1967), among others, has raised serious concerns about the reliability of official suicide statistics and the degree of error they contain. Making a medico-legal determination that a sudden death is, in fact, a suicide is generally difficult, primarily because it requires strong evidence regarding the intent of the decedent at the time of death. Absent a note or other compelling information, evidence of intent is often scant, opening up the possibility of misclassification into accidental or undetermined mortality categories. Although the complexity of the death classification process was well known and well documented by sociologists early on (e.g., Atkinson 1978), two crucial questions persist for sociologists. First, is there error in the suicide rates, and does it interfere with the ability to determine the etiological factors underlying suicide? Second, what are the systematic mechanisms that drive the medico-legal classification process?

Twenty-five years ago, Pescosolido & Mendelsohn (1986) combined sociological theory on discretionary subsystems and econometric modeling to examine the question regarding error and etiology. For the specific case of ecological and cross-sectional data in the United States, they found that error does exist in rates, that the sources of error were not in line with predictions with many social constructionist hypotheses, and that the ability to detect

sociological correlates was not significantly affected by existing error (see also Sainsbury & Jenkins 1982). Despite these findings, sociologists continue to look for and document clear-cut cases of the systematic misclassification of suicides (Whitt 2006). Sociologists hoping to settle the matter face the same problem faced by medico-legal experts: The people you really want to talk to are dead (Wray 2007).

Returning to Durkheim's era, van Poppel & Day (1996) consider whether, after controlling for differences in patterns of Catholic and Protestant death classification, group differences in suicide rates remained. They argue that group differences in suicide rates reported in the early twentieth century were artifacts of differential death recording. Using data from a Netherlands death registry from 1905–1910, which included each decedent's religious affiliation, van Poppel & Day observe that a much higher proportion of Catholics than Protestants died from "sudden," "accidental," or "unknown" causes of death, leading them to conclude that Catholic stigma surrounding suicide resulted in intentional misclassification (see Simpson's 1998 critique; van Poppel & Day's 1998 reply).

Timmermans (2005) takes up the second persistent question, the one regarding mechanisms of medico-legal classification. His ethnographic account of three years of fieldwork in a medical examiner's office highlights how the demands of professional authority faced by forensic death investigators cause them to adopt strict death investigation procedures that make family influence (pressure, for instance, to change a death provisionally ruled as suicide to an accident) nearly impossible. Following on Pescosolido & Mendelsohn's (1986) findings on lower suicide rates in areas with a medical examiner system, he also concludes that a variety of reasons lead medical examiners to underreport suicides more frequently than do coroners.

Both methodological challenges and recent advancements in suicide research suggest the need to take a more integrated approach to the study of this sociological phenomenon. It is not enough simply to focus on the longitudinal demographic processes, such as APC effects, that are likely to influence suicide rates without simultaneously considering how multilevel conditions may impact this outcome of interest. Similarly, we should not be attempting to estimate the effects of predictive factors of suicide without better understanding how suicide statistics are produced (Claassen et al. 2010), including how work processes, organizational structures, and familial relations interact to socially construct mortality statistics (Timmermans 2006).

NEW DIRECTIONS IN THE SOCIOLOGY OF SUICIDE

If sociology is going to remain relevant to the evolving multidisciplinary investigation of suicide as a social problem, the discipline needs to pursue three avenues simultaneously. First, we need to stand back and reconsider the macromicro dilemma theoretically and methodologically, including how to assemble a data set complex enough to provide rigorous empirical examination; gain new insights into the social and cultural mechanisms underlying suicide risk; and use our strengths in qualitative and multimethod approaches to push our understandings further. Second, we need to take seriously research findings on suicide from other disciplines, incorporating their insights into the multiple factors that affect suicide in individuals and societies. Third, we need to move forward by demonstrating and evaluating the utility of what we consider the robust conclusions of sociological research in pragmatic, real-world efforts to reduce suicide.

In what follows, we identify and discuss four issues that stand as obstacles to forward movement along these avenues.

1. Reconsidering the macro-micro insights of sociology. Our review of recent suicide research in conjunction with a more comprehensive historical overview of sociological contributions reveals a trend toward studies that examine suicide as something that happens not just within groups or societies, but also

to individuals who inhabit those groups and societies. By this we do not mean to suggest that sociologists either adopt an overly individualistic approach to the study of suicide or abandon the study of aggregate measures; rather, this suggestion calls both for incorporating our own insights on the individual level and for pushing past the current insularity of the sociology of suicide to consider research from other disciplines.

By the 1980s, sociologists such as Giddens, Coleman, and Stryker brought an explicit focus on the macro-micro link to the discipline's central research agenda (Pescosolido 1992). Furthermore, over the past three decades, scientific research and conceptual thinking have converged to suggest that suicide comes from a combination of genetic, developmental, environmental, physiological, social, and cultural factors operating through diverse, complex pathways (Goldsmith et al. 2002). These two avenues converge to suggest a need for more complexity in sociological theorizing on suicide. For example, the debate over sociology's "One Law" (Johnson 1965) about the role of religion in suicide can be reconsidered. Taking a simple example, if areas with a higher share of Catholics have lower suicide rates, the next question becomes: Who in those areas commits suicide? Is it the non-Catholics who are not members of a more integrative, and therefore protective, religious community? That has always been the implicit assumption. However, it may well be the case that areas with high percentages of Catholics have a more integrated set of social agencies that provide relief and support during times of crisis (Pescosolido 1990). If this is the case, it may be that religious affiliation has no real impact on the individual level given that these agencies are open to all, not just to Catholics. In any case, there are many such parallels that can draw from past sociological research.

We have suitable analytic tools to incorporate individual- and aggregate-level considerations. However, other tools yet to be used in suicide research are promising and allow for additional complexities with respect to how individuals are embedded in societies. For example, individuals who live in areas with similar social profiles do so in different historical periods and at different points in the life course. So, while the identification problem renders it impossible to completely disentangle the effects of APC characteristics on suicide probabilities, a recent development in APC analysis may offer a way to overcome this obstacle. The intrinsic estimator approach appears to produce uniquely determined parameter estimates in both linear and nonlinear models (Yang et al. 2008, Yang 2008). Given that much of the available information on complete suicides is obtained from time-series data composed primarily of aggregate mortality measures, disentangling which predictors of suicide are due to APC composition could enable us to generate research results with utilitarian functions outside the walls of academia—for example, results that are useful to mental health practitioners or policy makers.

Yet another promising methodological approach to incorporating multilevel predictors and changes over time, as well as model interactions between the two, is complex systems analysis (CSA). Simply stated, CSA seeks to examine the dynamic interplay among integrative systems without adhering to reductionist assumptions. Rather than try to reduce complex social phenomena to the most parsimonious explanation, this analytic approach seeks to obtain results that are simple enough to further our understanding of the underlying social processes of interest, yet intricate enough to retain sufficient contextual content to ensure that important interactions both between levels and over time, as well as feedback loops—are not overlooked. CSA may enable future suicide researchers to capture more accurately how individuals shape and are shaped by environmental forces that influence whether or not they take their own lives.

2. The intractable problem of macro-micro data on suicide? While the sociological imagination holds the potential to rethink the complexity of individual-aggregate influences, and while today's sociologists have the analytic tools

to do this, ideas about how to construct suitable data sets are in short supply. To be sure, high-quality, multilevel data regarding suicides are hard to come by, but a few studies discussed above demonstrate that they do exist or can be created for at least some outcomes related to suicide (e.g., suicidal ideation, attempts or beliefs/attitudes) and for some countries outside of the United States (Campbell & Troyer 2007, Maimon & Kuhl 2008, Norström 1995, van Tubergen et al. 2005).

However, at least in the United States, an integrated data set on completed suicide remains elusive. Four conditions stand as fundamental barriers to the scientific integration of etiological streams at micro and macro levels: (a) a fundamentally different etiology exists between completed suicide and attempts or ideation; (b) there are low base rates and high geographical dispersion of completed suicide; (c) by the very act, individuals who commit suicide are not available for research; and (d) the comparison group is problematic. These problems go hand in hand. Attempts and completions represent distinctly different social phenomena for which direct causes, mediating mechanisms, and moderating influences vary (Beck et al. 1985, Maris et al. 1992, Safer 1997). In the most standard difference, women are more likely to attempt suicide, whereas men are more likely to commit suicide. Investigators who have explored multilevel effects, even using large-scale, nationally representative, and contextualized data sets (e.g., Add Health, Bearman & Moody 2004), have focused on suicidal ideation or attempts rather than completed acts—as their endpoints of interest.

Acts of completed suicide remain a fairly rare event, occurring roughly once per 10,000 people each year across the entire United States. With such wide geographical dispersion, any data set that uses a cluster sampling approach, no matter how many cases are collected nationally, is likely to miss a large enough share of completed suicides to make a multilevel investigation unlikely. Furthermore, even a study as large as Add Health could never tally a sufficient number of suicides, and so

adolescents who commit suicide are dropped from the sample, making the data missing or dependent on reports by others. Finally, the issue of what is the appropriate comparison group remains. Researchers who use mortality files compare individuals who committed suicide with those who died from other causes. Using national-level data that covers all geographical regions (e.g., national mortality files) fundamentally changes the comparison to dying by suicide versus dying by other causes (Wray et al. 2008). Although the multilevel data problem is removed, the question of meaning remains. What does it mean to compare the correlates, whether at the individual or contextual level, of individuals who died from suicide (an intentional act of self-destruction) with those who died from all other causes (none of which is intentional)? Clinical researchers have used matched controls. Again, however, how would such controls who did not commit suicide be selected? In essence, the appropriate comparison group needed for macro-micro research is all those who have not committed suicide, even if the data are right truncated.

Sociologists, however, have demonstrated a high level of creativity in surmounting data difficulties and in finding innovative ways to aggregate data at different levels to test unique social hypotheses, offering insights into pressing societal questions without abandoning the goals of building the stock of basic sociological knowledge (e.g., see King & Bearman 2009, Liu et al. 2010a,b on the social factors that explain rising autism rates).

3. Clarifying the nature and mechanisms of social and cultural influence. Here we are advocating a reconsideration of sociological theories of suicide outside the dominant Durkheimian perspective and the careful application of newer directions in sociological thought. For example, from a life course perspective, there is no necessary theoretical antagonism between imitation theories and those that pose other mechanisms. The former may provide an understanding of the timing of suicides while the latter targets those underlying forces or events that set up a predisposi-

tion to suicide. Recent studies provide evidence for suicide contagion, particularly among youth (Gould et al. 1990, 1989; Romer et al. 2006) and suggest that social networks are implicated in a surprising number of different kinds of "contagion," including suicidality (Christakis & Fowler 2009, Bearman & Moody 2004).

These findings, coupled with a consideration of contemporary theoretical insights, suggest that one useful approach would be to take Durkheimian theory back to first principles and translate it through a social network perspective. In the 1990s, Pescosolido and colleagues took steps in that direction, showing that findings on the religious influence on suicide rates are consistent with the nature of coreligionists' networks and the sets of organizational supports in regional hubs in different U.S. denominations (Pescosolido & Georgianna 1989; Pescosolido 1990, 1994). In line with the work by other sociologists who suggested the tight correspondence, if not identity, between Durkheim's groups and contemporary network theory's ties (e.g., Bearman 1991), she suggested that a social network elaboration of Durkheim's theory allows for greater specificity and cross-fertilization with contemporary social theory. With Durkheim's "societies" translated into the operation of different networks, solidarity comes from the presence (or absence) of strong, interlocking social relationships.

As depicted in **Figure 2**, reimaging Durkheim's theoretical scheme in network terms produces a safety net that has distinctive topographical features.

One dimension, running from left to right, represents integration. Another dimension, running from back to front, represents regulation. Both dimensions run from high to low, and their interaction creates the four types of suicide. When individuals live in social structures characterized by too little integration or regulation, the threads of the social safety net are too far apart to catch them when crises destabilize their equilibrium. Egoistic and anomic suicides are "diseases of the infinite" because of the extreme gaps

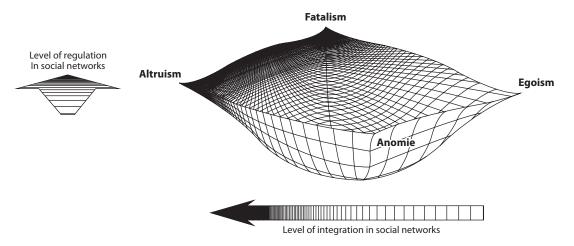


Figure 2

Networks and the Durkheimian Theory of Suicide.

in the societal safety net that normally supports individuals during times of individual or community crisis. Conversely, the social safety net closes up when social structures are overregulated or overintegrated. With no flexibility or give in the safety net, individuals who experience crises hit a wall that shatters rather than supports. It is in the center of the net, where ties are moderately integrated and regulated that individuals can be safely caught and restrained from their suicidal impulses.⁶

This approach that produces a theoretical prediction plane for two aspects of network structures on which Durkheim focused (i.e., integration and regulation) has been recently considered in light of concerns with multilevel contexts (Pescosolido 2010). However, this is just one example of how contemporary sociological theory can be brought to bear on rethinking and testing fundamental sociological ideas on suicide. Although some have recently argued that the Durkheimian approach has

4. Bringing the full scope of sociological tools to bear. Our review clearly indicates that past and present research on suicide has been overwhelmingly dominated by quantitatively oriented approaches, with all but one (Timmermans 2005) of the 41 articles we reviewed fitting this description. Alternative methodologies—qualitative or mixed methods approaches—are practically nonexistent. Although the Durkheimian legacy, the nature of easily accessible data, and funding priorities

been "falsified" (Nolan et al. 2010), our read is different. The stockpile of sociological research suggests that, despite sometimes conflicting and weaker-than-expected findings, there is sufficient theoretical power and empirical support for Durkheim's theory. This does not mean that all of the hypotheses that Durkheim considered are applicable in contemporary society; however, the framework of connectedness and well-being remains central to sociology's basic contributions and finds resonance in contemporary population health research (Hall & Lamont 2009). It is no longer realistic to take Durkheim's hypotheses from the nineteenth century and expect them to be reasonable bases for empirical investigation in the twenty-first. However, it is also premature and unwise to claim that the nature of social structure does not influence suicide rates.

⁶With examples ranging from Jonestown (Coser & Coser 1979) to Fischer's (1982) communities in Northern California, this approach undermines many of the early theoretical criticisms of Durkheim's theory (e.g., Johnson 1965). Yet this translation into network theory remains in the early stages, making concerns about useful data and methodological creativity even more pressing.

may partially account for this pattern, the extent to which qualitative methods are underrepresented is surprising, especially given the long history of valuable, qualitatively based contributions in related areas of study, such as the sociology of death and dying (see Fontana & Keene 2009 for an overview).

Contemporary ethnographic accounts of those who deal with suicide on a daily basis the trauma surgeons, suicide hotline volunteers, physicians and workers in emergency psychiatric wards, and first responders—would offer insights to both theoretical and methodological innovation. Even as suicide attempts tend to have different correlates than completed suicide, interviews with those who have made suicide attempts (especially medically serious attempts) or with friends and family members who experienced a loss to suicide could offer much needed data. Content analyses of suicide notes or of suicide-related social networking open up further possibilities for interpretive accounts. Recent efforts by Scourfield and colleagues (2010) to develop a "sociological autopsy" that complements the psychological autopsy draw from both quantitative and qualitative methods within a single analytical frame.

In the more traditional vein of research on the stages in the classification of suspicious deaths, information on how various medicolegal systems differentially code suicides and on whether such differences generate random or systematic sources of bias remains elusive and a good candidate for additional qualitative and mixed method investigation. Similarly, natural (or quasi-natural) experiments hold promise for evaluating and potentially validating official suicide statistics [e.g., see demography's example of examining racial disparities in birth outcomes (Lauderdale 2006)].

We have a unique opportunity to take the Weberian and interactionist approach advocated by Douglas (1967) and more thoroughly investigate the social meaning(s) of suicide, the contexts from which these meanings are derived as well as the patterns they follow, and how these patterns vary according to existing fault

lines of stratification. In fact, Durkheim's four types of suicide suggest research into individual meaning. For example, what are the different meanings of suicide for those who contemplate and eventually attempt it? Historians offer excellent examples of this kind of work, situating detailed, individual-level case studies within sociological frameworks (Anderson 1987, MacDonald & Murphy 1991, Weaver 2009).

CONCLUSION

In the United States, suicide accounts for more than 10% of total deaths among individuals between the ages of 15 and 34. Moreover, for White men within the same age range, suicide ranks as the second leading cause of death (Heron 2010). Sociologists are long accustomed to believing that suicide rates reflect underlying levels of social integration and cohesion. We are probably right about that. The durability of the Durkheimian theory is truly impressive. Carefully crafted, problem-oriented sociological research can provide strategies for change that can contribute to the sense of collective efficacy that communities need to solve their most pressing social problems, of which suicide is often one.

Our brief history of sociological research suggests that two different and often separate goals underlie research on suicide: namely, a manifest concern with the development and testing of sociological theory and a more latent concern for the amelioration of social problems. Although Burawoy's (2004) notion of public sociology has argued that these are not fundamentally at odds, in practice they have often led to different communities of researchers in sociology, communities in which interaction is quite limited, if not absent. As has been argued elsewhere, both the integration of insights from the discipline's mainstream and from outside the discipline can serve to advance progress in sociology's contributions (Pescosolido Kronenfeld 1995, Pescosolido 2006). Furthermore, translating scientific innovations that have occurred in other disciplines into the language and practice of sociology targets the focus on complexity that is increasingly part of the larger agenda of the sciences (Jasny et al. 2009). Adopting a multidisciplinary agenda as well as an open-source model of information and idea sharing will make sociological contributions more visible and amenable to use and reuse by other suicide researchers, regardless of discipline. Taking a public sociology approach to suicide, treating it as a significant social problem in and of itself (not merely a symptom of larger social pathologies), aims strategically at intervening in public discourse and policy debates around suicide. No article we reviewed in the top-tier journals takes this aim as primary; few even mention it as secondary. It is time to take that more latent concern and make it more manifest.

Basic insights from sociologists have been used to reduce catastrophic mistakes and errors in complex organizations and professions and to understand disaster-related deaths (Bosk 1979, Klinenberg 2002, Vaughan 1996), but we have yet to offer many direct insights into how our theories and methods might be used to power suicide prevention research. This is a most opportune time to move forward in this direction given the Centers for Disease Control's (2008) major policy statement on the role of "connectedness" in suicide prevention and their call for intervention proposals along this line. Furthermore, the massive groundswell of

activism advocating community-based prevention programs is reflected in the accelerated expansion of the dozens of community- and campus-based chapters of national suicide prevention organizations such as the American Federation of Suicide Prevention, the Jason Foundation, and the Jed Foundation; the federal funding priorities of the Garrett Lee Smith Memorial Act; and high-profile efforts by the Veterans' Administration to reduce suicide among soldiers returning from wars in Iraq and Afghanistan (U.S. Army 2010). The challenges are significant, and the answers are far from obvious. However, sociological understandings of suicide are not only relevant but are essential to these prevention efforts.

The new directions for research we have outlined require that we simultaneously stand back and reassess Durkheim and the competing theories of his time and move forward along new avenues of inquiry and collaboration to embrace the complexity of suicide. Choosing not to pursue these new directions means continuing on the well-worn path that sociology has followed, with few deviations, since the close of the nineteenth century. In that event, we fear not only that future sociologists will become less interested in pursuing answers to the riddle of suicide, but also that the role for sociology in the multidisciplinary study of suicide will eventually die, as it were, a self-inflicted death.

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