

## Religiosity, Secularism, and Social Health

### A Research Note

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#### Abstract

This article is a research note addressing various theoretical and methodological issues in the measurement and analysis of religiosity and secularism and their relationship to quantifiable measures of social health in advanced and prosperous democracies. Particular attention is given to cross-national frameworks for studying religiosity and secularism as well as to the conceptualization and statistical analysis of these notions for research design. Various procedural suggestions regarding the use of comparative frameworks are presented to assist in the development and implementation of future studies gauging the impact of worldview commitments upon societal wellbeing.

#### Introduction

[1] In a recent article in this journal, Gregory S. Paul undertakes an extensive cross-national study of the impact of religion and secularism upon democratic polities. Paul's concern is to test the plausible and general hypothesis that "radically different worldviews can have measurable impact upon societal conditions" (¶1). The test case for this hypothesis is whether or not religion and secularism, broadly construed, have a quantifiable effect upon various measures of societal health such as criminal victimization, suicide, sexually transmitted diseases (STDs), teen pregnancies and births, and abortion. Paul notes that while scholarly support exists for the general hypothesis of worldview effect upon societal health, little to no systematic investigations exist regarding the following test case hypotheses H1 and, by inference, H2:

H1: "Belief in a creator is beneficial to societies"

H2: "Secularism is beneficial to societies"<sup>1</sup>

Paul's study, then, seeks both to remedy this *erratum* within the academic literature and to initiate more academic discussion on this important issue.

[2] Paul's efforts and "first look" should be applauded since they bring to the attention of religious studies scholars and social scientists a very important and timely subject of study. At the same time, the scholarly community, in the spirit of constructive and critical scientific inquiry, needs to assess the methodological assumptions which frame Paul's investigation. This is especially so given not only the importance of the subject matter at hand but also Paul's conclusion that:

The non-religious, pro-evolution democracies contradict the dictum that a society cannot enjoy good conditions unless most citizens ardently believe in a moral

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<sup>1</sup> This exact hypothesis is not found anywhere in Paul but is inferred from various comments throughout the article. For example, in paragraph 19, Paul states "Although they are by no means utopias, the populations of secular democracies are clearly able to govern themselves and maintain societal cohesion. Indeed, the data examined in this study demonstrates that only the more secular, pro-evolution democracies have, for the first time in history, come closest to achieving practical 'cultures of life' . . ."

creator. The widely held fear that a Godless citizenry must experience societal disaster is therefore refuted. *Contradicting these conclusions requires demonstrating a positive link between theism and societal conditions in the first world with a similarly large body of data – a doubtful possibility in view of the observable trends* (¶19).

In what follows, some issues of concern are raised regarding Paul's important study. It should be noted that the grounds for this research note are not substantively philosophical. It is not the concern of this response to address whether or not religiosity and secularity is indeed beneficial or detrimental to any polity. That would require a far different type and length of a response. Rather, this rejoinder addresses Paul's thesis, analysis, and conclusions in terms of the various methodological assumptions and frameworks used to deploy his study. It is the opinion of the authors that once all of the methodological issues are considered, Paul's findings and conclusions are rendered ineffectual. In closing, various suggestions are offered in the hopes of advancing Paul's hopes for "future research and debate on the issue" of comparative analysis of religiosity, secularism, and democratic social health.

### **Methodological Individualism**

[3] In conducting any research investigation, careful attention must be given to the units of analysis that are selected as targets of study since these will affect the kinds of generalizations and theorizing that a researcher is able to articulate and defend. Any unit of analysis carries with it important characteristics that define and distinguish it from other possible units of analysis which a researcher may select. In the case at hand, Paul uses individuals and political systems as the primary units of analysis and applies a loosely defined notion of religion and secularism to each that leads to certain findings and conclusions. Religion or secularism is inferred to democratic political systems based upon the self-reports of individuals to survey questions asked by the International Social Survey Program (ISSP) in 1993 and 1998.<sup>2</sup> The methodological assumption inherent in this inference is that the religiosity or secularity of a political system is *reducible* to the religiosity or secularity of its individuals as measured through survey questions. Such analysis leads Paul to commit what social scientists call the *individualistic* or *reductionist fallacy*: the error of making inferences about collectivities based upon individuals (see the classic essay by Kincaid). This is not to suggest that methodological individualism is not an aspect of scientific explanations. For example, Paul overlooks the contributions of theories of individual religious behavior (e.g., Iannaccone; Warner) that can serve as a micro-level foundation for Paul's or any other comparative study of religion. But Paul's sole and ambiguous use of it injects serious deficiencies within his study.

[4] Moving beyond the religiosity and secularity of individuals, a political system may be a secular system even if most of its members are committed to a religious worldview and, vice versa, a political system may be religious even if most of its members are committed to a secular worldview. This highlights the key dynamic within the unit of analysis problem, namely, that religious or secular may mean different things at different levels of analysis. The concept of secular, for example, may denote a political system's formal structures while when applied to individuals it may denote ethical orientations or attitudinal outlooks. This leads to the second methodological problem of Paul, namely, conceptual ambiguity.

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<sup>2</sup> The International Social Survey Program describes itself as a "a continuing annual programme of cross-national collaboration on surveys covering topics important for social science research [bringing] together pre-existing social science projects and coordinat[ing] research goals, thereby adding a cross-national, cross-cultural perspective to the individual national studies." See <http://www.issp.org/homepage.htm> for its history and data archives.

## Conceptual Ambiguity

[5] The effectiveness of any social science research is based upon an isomorphic relationship between the conceptual-theoretical and the observational-empirical levels. The crucial link in this relationship is not only the operational definition used to determine and measure the concept in question but also its degree of congruence with the concept. In studies of religion and secularism, researchers should bear in mind that “defining religion is a slippery enterprise” given the fact that “the broad panoply of what are often seen as religious movements” makes it difficult to construct “a single definition that encompasses all these entities” (Gill: 120). The study presented in Paul’s essay suffers both from a serious lack of conceptual and operational clarity as it regards religiosity and secularism rendering both the methods and findings at best unclear and at worse highly invalid. Nowhere in Paul’s essay does one encounter clear and succinct definitions of either of the concepts in question. If one considers the concept of secularism, for example, Paul does not consider the important contributions of Casanova, Lechner, or Berger (1967, 1997). All of these scholars advanced complex theories of secularization that would assist any study seeking to understand or predict trends and relationships between secularity and societal health. As Table One suggests (see below), Paul’s study is replete with loosely analogous terms that are assumed to be isomorphic to the concepts of religiosity and secularism. Even a casual survey of these terms reveals that such an assumption, as well as the inference that the terms are similar amongst themselves, is completely invalid.

[6] Paul’s methodological individualism, as suggested earlier, also leads him to overlook appropriate institutional definitions for religiosity and secularism. For example, in defining secular polities one must take into account whether or not some institutional religion or its premises control its legal and judicial processes as well as whether or not such polities favor any religion. Such characteristics may lead to basic distinctions between states that are religious (e.g., Iran), states that favor one particular religion (e.g., Greece), states that are secular (e.g., United States), and states that are anti-religious (e.g., China). In the case of the United States, its legal and judicial processes are not governed by any institutional religious sect or premises and it itself does not officially favor any religion. As such, the United States is a secular nation not a religious or theistic nation.<sup>3</sup> Nowhere in Paul’s study does one find any treatment regarding institutional religiosity or secularity. The next concern, to which this essay now turns, regards the assumptions of comparative correlations among the findings of the ISSP.

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<sup>3</sup> On this point see Taylor, who makes a distinction between a secularism that is religiously based and one that does not depend upon any religious commitment. He identifies American secularism as being founded upon a non-denominational Protestantism that has now begun to fracture leaving American secularism without any religious foundation. This type of religiously founded secularism is different than, for example, the more assertive secularism of France where its existence does not rely on any religious premises but rather on its worldview status. For an excellent discussion of these types of secularism, see McClay.

Table One: Theoretical Concepts and Ambiguous Conceptual Definitions

Theoretical Concept: RELIGIOSITY	Theoretical Concept: SECULARISM
Popular belief in a creator, supernatural creator, absolute belief in God, faith in creator, creator belief, belief in and worship of creator	Extensive secularization, secularization, secularism, western secular materialism, secular, secular cultures
Theists, theism, theistic, pro-theistic, conservative theists, cultural and moral superiority of theism	Religious recession, non-religious, low religiosity, less religious
Anti-evolution creationism, creationism, creationist, purposive creation, purpose and design	Acceptance of evolution, theory of biological evolution, evolutionary science, evolution, popular acceptance of human evolution, pro-evolution
Evangelical Christian	Denial of a creator, disbelief of a creator, popular disbelief in God
Obedience to strict moral dictates	Widespread abandonment of faith
Judeo-Christian worldview	Avowed atheists
Faith based charities	Less theistic, non-theism
Religion, religious belief and practice, religious affiliation, religious values, religious moralist, religiosity, popular religiosity, religiosity (in terms of ardency, conservatism, and activities), attendance of religious services, prayer rates, worship, prayer, and other aspects of religious practice	Little in the way of religious values or institutions
Bible literalism	

### Comparative Analysis and Operationalizations

[7] In terms of scientific and methodological rigor, the ISSP studies are considered as some of the most sophisticated and successful cross-national social surveys. Yet as any social scientist is well aware, survey research and the use of secondary data are plagued with methodological quandaries that have the potential of rendering any study worthless (on the problems of survey research and secondary data analysis, see Converse and Presser; Kiecolt and Nathan; Rossi, Wright, and Anderson; Turner and Martin). These predicaments are magnified when studies, like the ISSP, are of a cross-national or comparative nature. The problems of producing cross-national comparison based on tailor-made cross-national surveys are well documented in the literature. Madden suggests that cultural analysts are too often sloppy when utilizing comparative cultural statistics, particularly when they produce and present data. Atkinson and Brandolini offer an extensive catalogue of the problems that arise in cross-country comparisons and time-series analysis of economic data since these are extremely sensitive to data selection and categorization as well as definitions of categories

of analysis. Shaw, Dijk, and Rhomberg, in their study of trends in global crime and criminal justice, conclude that it is methodologically hazardous to engage in any cross-country comparative study of crime statistics. For Shaw *et al.*, the cross-country crime comparisons suffer from indelible definitional, reporting, and database deficiencies rooted in comparative cultural and structural differences. These and other findings lead Shaw *et al.* to employ comparative data on crime and justice admitting that such use takes into account that “the conclusions that can be drawn from the survey data, unless detailed analysis on a country-per-country basis is carried out, must be considered as high-level overview of trends” (36).

[8] While all of these studies and many others should prohibit the casual and non-rigorous analysis and application of comparative studies and secondary data sets, none specifically address the studies conducted under the auspices of the ISSP. Can these cautionary exhortations also apply to the various surveys of the ISSP? In a well-documented and extensive analysis of the ISSP, Jowell offers perhaps the most serious treatment of the problems and pitfall of cross-national studies using ISSP as a “useful case study” (170). In general, Jowell would be in agreement with applying the findings of Madden, Atkinson and Brandolini, and Shaw *et al.* to ISSP surveys and findings. And in spite of the ISSP’s reputation for sophistication and rigor, Jowell finds that it suffers from serious debilitations due to “cultural and methodological divides” (170). One may ask just what debilities Jowell has in mind. Consider the following:

1. No recognizable probability sampling by some ISSP member countries
2. Varying standards for selections of ISSP survey respondents
3. Non-equivalent functional translations of survey words and phrases
4. Varying fieldwork periods in ISSP member countries

While all of the above seriously undermine the validity and reliability of ISSP surveys and any conclusions that researchers may want to draw from them, the most destructive limitation is the translation equivalency problem. As some scholars note, the task of creating surveys and studies that are clear and straightforward is predicated on using “simple language, common concepts, manageable tasks, and widespread information” (Converse and Presser: 10). These comments were made regarding the formulation of English language surveys for *English-speaking respondents*. Imagine the colossal profundity of crafting an English language survey of such complex concepts as religion, belief in God, nature, evolution, etc. and then translating this survey instrument into other languages with the goal of conveying the same understanding and meaning the English-speaking survey researchers assumed in the first place! This task is nothing short of monumental.

[9] As a case in point, Jowell asks readers to consider the “insuperable” difficulties that the ISSP encountered in its 1991 module on religion. Jowell writes:

Consider even the answer categories employed in British English questionnaires. Are there comfortable and familiar functional equivalents in, say, Polish, Hungarian, Bengali, or Japanese of the phrases *slightly agree* and *slightly disagree*, or *just a bit*? When the ISSP was in the throes of designing its 1991 module on religion, the Japanese delegation eventually came to the reluctant conclusion that there was no appropriate word or phrase in Japanese that approximated the concept of God. In the end, of course, they managed to come up with a doubtless somewhat tortuous circumlocution designed to get across the basic meaning of the Judeo-Christian-Islamic concept of God. But beware of data that depend on such contrivances based on collegiality! (172).

Beyond this example, Jowell presents other serious translation problems that plagued the ISSP efforts in the 1990's. These and other deficiencies led Jowell to argue that while researchers ought not to abandon cross-national studies, their analysis should:

. . . be rather more circumspect than it sometimes is. It would be unwise, to say the least, to draw heroic conclusions on the basis of unexpected national variations in the answers to a single question. But, recalling the difficulty of asking questions about God in Japan, it is frankly unwise to draw firm conclusions about any large national variations in data in the absence of sound local knowledge of the countries concerned- relating not only to the methods employed and possible ambiguities in concepts or questions but also to the society's social structure and history (173).

Beyond methodological critique, Jowell offers a list of 10 "rules of thumb" for addressing the various problems that beleaguer comparative studies to ensure their responsible application. Given the case at hand, a few are noteworthy and bear repeating in an abbreviated format:

- Rule 1: Social scientists should undertake not to interpret survey data relating to a country about which they know little or nothing.
- Rule 2: Analysts of cross-national data should resist the temptation to compare too many countries at once.
- Rule 3: Cross-national surveys should pay as much attention to the choice and compilation of aggregate-level contextual variables as they do to individual-level dependent and independent variables.
- Rule 4: Social scientists contemplating or engaged in cross-national studies should be as open about their limitations as they are enthusiastic about their explanatory powers.
- Rule 5: Analysts of cross-national data should undertake to suspend belief initially in any major intercountry differences they discover.

Given Jowell's precautions, it would be prudent to consider just what it is that one can learn from Paul's study on religiosity, secularism, and social health.

### **Real versus Artifactual Differences: A Note of Caution**

[10] One of the most alarming claims that Jowell advances is the possibility that national differences arising from ISSP data may be nothing more than fictional:

Difficult as it is for a native British English speaker to judge, it is hard to resist wondering whether some of the national differences that emerge from ISSP data are in reality merely artifacts of doubtful translations, where the translated word or phrase has acted as a slightly different stimulus from the one intended. To the extent that this happens, some fascinating cross-national differences that emerge may be partially (or wholly) illusory (172).<sup>4</sup>

Jowell alludes not only to response errors (e.g., communication errors) but, as mentioned earlier, to sampling errors. Both types of errors are what can be termed measurement errors and lead one to question not only the validity and reliability of Paul's methods and findings but also the legitimacy of

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<sup>4</sup> Jowell also writes that "the demands of good science require us not to turn a blind eye to such imperfections when we come to interpreting the data arising from these studies nor to accept at face value differences between nations that we know may well be illusory and artifactual" (169).

his conclusions. If Jowell is correct and if Paul's study falls prey to methodological individualism and sloppy conceptualizations, then the differences between religious and secular nations are a result of measurement errors (e.g., poor sampling, translation non-equivalence, etc.) and therefore do not reflect real differences between prosperous democracies.

[11] Having said this, one of the difficulties inherent in Paul's study is the lack of clear and distinct hypotheses. This multiplicity of hypotheses is an inherent problem particularly in the study of religion. As Gill reminds us:

As with most academic fads concerning dramatic, global phenomena, research on religious fundamentalism tends to produce studies emphasizing "big" processes with very little microlevel foundational basis. The broad concepts employed present problems in developing testable hypotheses (119).

Earlier in the essay, it was suggested that perhaps the chief hypotheses being tested in Paul's investigation were:

H1: "Belief in a creator is beneficial to societies"

H2: "Secularism is beneficial to societies"

But Paul advances other hypotheses that he appears to consider as identical to these. Consider for example the following:

H3: Popular religiosity is societally advantageous

H4: High rates of belief in a creator, as well as worship, prayer and other aspects of religious practice, correlate with lowering rates of lethal violence, suicide, non-monogamous sexual activity, and abortion, as well as improved physical health.

H5: Faith-based, virtuous "cultures of life" are attainable if people believe that God created them for a special purpose and follow the strict moral dictates imposed by religion.

H6: Faith in a creator improves societal conditions

H7: Faith in a creator degrades societal conditions

H8: Disbelief in evolution improves societal conditions

H9: Disbelief in evolution degrades societal conditions

H10: U.S. is a "shining city on the hill" to the rest of the world

When one adds this plethora of hypotheses along with Paul's conceptual superfluity, it is impossible to know what in fact is being measured, tested or falsified. This lack of measuring clarity and falsification not only causes Paul to violate the scientific principles of corrigibility and incrementalism but allows Paul to engage in theoretical though meaningless comparisons of nations based on simple scatter plots and outlying data.

[12] As one considers Paul's study, much caution and skepticism should be applied to such statements as the following (all emphases not in original):

1. "The view of the U.S. as a 'shining city on the hill' to the rest of the world is *falsified*" (§18).
2. "Levels of religious and nonreligious belief and practice, and indicators of societal health and dysfunction, have been most extensively and *reliably* surveyed in the prosperous developed democracies" (§9).

3. “Self-reported rates of religious attendance and practice may be significantly higher than actual rates, but the data is *useful* for *relative comparisons* . . .” (§10).
4. “. . . the *relatively reliable* nature of the data” (§11).
5. “. . . *correlations* of raw data” (§12), or “The primary intent is to present basic *correlations* of the elemental data” (§2).
6. “. . . higher rates of religious affiliation, attendance, and prayer *do not result* in lower juvenile-adult mortality rates on a cross-national basis” (§15).
7. “Claims that secular cultures aggravate abortion rates are therefore *contradicted* by the quantitative data” (§16).
8. “In other cases, the *correlations* are *strongly graded*, sometimes outstandingly so” (§18).
9. “Indeed, the data examined in this study *demonstrates* that only . . .” (§19).
10. “*Contradicting* these conclusions requires *demonstrating a positive link* between theism and societal conditions . . .” (§19).

All of these statements violate most if not all of the rules for comparative data analysis established by Jowell and Madden.

[13] Even if one sets aside the above methodological difficulties that frame Paul’s study, his execution of the analysis leaves much to be desired. As noted earlier, Paul states his findings in strong language, but throughout his analysis, he handles his data with uncharacteristic modesty. In truth, there his analysis has much to be modest about.

[14] To support his findings, Paul marshals a series of scatterplots as evidence. These plots belie the bivariate nature of his analysis. If any investigation demands a multivariate approach, it is one in which staggering claims are made. In order to examine and then eliminate rival hypotheses, Paul must utilize a technique that controls for other relevant variables of interest. For example, it is possible that crime rates are as much a function of the degree of political freedom in a society as they are a function of the theistic bent of the culture or the individuals in that culture. In order to dismiss such a suggestion, Paul must attempt to control for the degree of freedom present in First World Democratic Polities. Since he does not, we are forced to treat his results as spurious, for there is a great possibility that all of his bivariate relationships are illusory, with his dependent variables more likely influenced by the array of independent variables he does not examine.

[15] Even if the bivariate approach is justified in some comparative studies, the method of reporting those results is standardized among social scientists. Paul does not provide the reader with a meaningful opportunity to evaluate his findings, for he provides no correlation coefficients. He also fails to determine or report the significance of these correlations, so the reader is left to trust Paul’s judgment that a negative correlation between theism and indicators of societal health has been established.<sup>5</sup> Statistics exist so that we are not required to trust the subjective judgment alone, particularly in regard to matters as weighty as theism, democracy, and the social good.

## Conclusion

[16] As mentioned earlier, Paul’s investigation should be applauded for bringing to the attention of scholars an important and neglected problem- the relationship between worldview commitments and societal health. Paul’s work brings to the fore the importance of various beliefs for the prosperity of democratic polities. At the same time, however, its methodological problems do not allow for any conclusive statement to be advanced regarding the various hypotheses Paul seeks to

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<sup>5</sup> This may lead Paul to commit the Fallacy of Presumptive Proof. On this issue, see Fisher.



demonstrate or falsify. What one can state with certainty is that *one cannot in any way be certain as to the effects of religiosity and secularism upon prosperous democracies* at least as based upon the methods and data of Paul's study.

[17] In order to make incremental progress in demonstrating or falsifying any relationship between religiosity and secularism and societal health, one would have at least to address the following issues:

1. Conceptual clarity and consistency of use regarding the terms "religiosity" and "secularism."
2. Clear, distinct, and falsifiable hypotheses.
3. Explicit and adequate implementation of comparative analysis suggestions as found in Jowell and Madden.
4. Clear presentation of statistical tests.
5. Adequate discussion of the role of individual and formal political structures as these relate to the concepts in question.
6. Adequate assessment of the relationship between individual attitudes and behaviors and the relationship of these to macro-societal characteristics.

It is acknowledged that other important issues besides these should be addressed (e.g., the contribution of various societal structures [e.g., police enforcement, diet, attitudes toward sexuality] to societal health). Yet one can be certain that any future examination in this important topic that implements these "rules of thumb" will be on a more sure footing and will make a contribution to our understanding of the role of worldview commitments to social health by avoiding the methodological pitfalls that can damage even the most noble of efforts.

## **Bibliography**

Atkinson, A. B., and A. Brandolini

- 2000 "Promise and Pitfalls in the Use of "Secondary" Data-Sets: Income Inequality in OECD Countries." Number 379, *Temì di Discussione del Servizio Studi*, Banca D'Italia.

Berger, P.L.

- 1967 *The Sacred Canopy*. New York: Anchor.
- 1997 "Epistemological Modesty: An interview with Peter Berger." *Christian Century* 114: 972-75, 978.

Casanova, J.

- 1994 *Public Religions in the Modern World*. Chicago: University of Chicago.

Converse, J. M., and S. Presser

- 1986 *Survey Questions: Handcrafting the Standardized Questionnaire*. Thousand Oaks, CA: Sage.

Fischer, D. H.

- 1976 *Historian's Fallacies: Toward a Logic of Historical Thought*. New York: Harper Perennial.

Gill, A.

- 2001 "Religion and Comparative Politics." *Annual Review of Political Science* 4: 117-38.

Iannaccone, L. R.

- 1990 "Religious Participation: A Human Capital Approach." *Journal for the Scientific Study of Religion* 29, 3: 297-14.

- Jowell, R.  
 1998 "How Comparative is Comparative Research?" *American Behavioral Scientist* 42, 2 (October): 168-77.
- Kiecolt, K. J., and L. E. Nathan.  
 1985 *Secondary Analysis of Survey Data*. Thousand Oaks, CA: Sage.
- Kincaid, H.  
 1986 "Reduction, Explanation, and Individualism." *Philosophy of Science* 53: 492-513.
- Lechner, F. J.  
 1991 "The Case Against Secularization: A Rebuttal." *Social Forces* 69, 4: 1103-19.
- Madden, C.  
 2004 "Making Cross-country Comparisons of Cultural Statistics: Problems and Solutions." Working Paper 2, *Australian Council for the Arts*.
- McClay, W.  
 2003 "Two Concepts of Secularism." Pp. 31-62 in *Religion Returns to the Public Square*. Edited by H. Hecló and W. M. McClay. Washington, DC: Woodrow Wilson Center and The John Hopkins University Press.
- Rossi, P. H., J. D. Wright, and A. B. Anderson  
 1983 *Handbook of Survey Research*. New York: Academic.
- Shaw, M., J. van Dijk, and W. Rhomberg  
 2003 "Determining Trends in Global Crime and Justice: An Overview of Results from the United Nations Surveys of Crime Trends and Operations of Criminal Justice Systems." *Forum on Crime and Society* 3, 1-2 (December): 35-63.
- Taylor, C.  
 1999 "Modes of Secularism," in *Secularism and Its Critics*. Edited by R. Bhargava. Delhi: Oxford University Press.
- Turner, C. F., and E. Martin  
 1984 *Surveying Subjective Phenomena, Volume 1*. New York: Russell Sage Foundation.
- Warner, R. S.  
 1993 "Work in Progress Toward a New Paradigm for the Sociological Study of Religion in the United States." *American Journal of Sociology* 98, 5: 1044-93.