7-23-2014

Tolerance in the City: The Multilevel Effects of Urban Environments on Permissive Attitudes

Christopher M. Huggins
University of Kentucky

Jeffrey S. Debies-Carl
University of New Haven, jdebies-carl@newhaven.edu

Publisher Citation

Huggins, Christopher M. and Jeffrey S. Debies-Carl. "Tolerance in the City: The Multilevel Effects of Urban Environments on Permissive Attitudes." Journal of Urban Affairs. Volume 37, Issue 3, August 2015, Pages: 255–269. Article first published online : 23 JUL 2014, DOI: 10.1111/juaf.12141

TOLERANCE IN THE CITY: THE MULTILEVEL EFFECTS OF URBAN ENVIRONMENTS ON PERMISSIVE ATTITUDES

Christopher M. Huggins*

University of Kentucky

Jeffrey S. Debies-Carl

University of New Haven

Running Head: Tolerance in the City

KEYWORDS: Urbanism, tolerance, urban ecology

Date Sent: 9-3-2013

*Please send all correspondence to Christopher M. Huggins, Department of Sociology, 1515 Patterson Office Tower, University of Kentucky, Lexington, KY 40506-0027.
email: christopher.huggins@uky.edu

TOLERANCE IN THE CITY: THE MULTILEVEL EFFECTS OF URBAN ENVIRONMENTS ON PERMISSIVE ATTITUDES

Christopher M. Huggins and Jeffrey S. Debies-Carl

ABSTRACT

Studies on urbanism often suggest a link between urbanites and increased tolerance. While most research supports this claim, it is hampered by several limitations: it focuses almost exclusively on the United States, it neglects classical arguments that urbanism is a macro-level as well as local phenomena, and it does not direct attention to the different mechanisms through which urbanism is believed to operate. In this paper, we reexamine the tolerance-producing capacity of urbanism by addressing these limitations. This study uses a large cross-national sample, multi-level modeling to examine urban factors at both the local and societal level, and two measures of tolerance to account for the different forms it might take depending on competing conceptualizations. We find that local urban environments promote tolerance cross-nationally and that societal level urbanization is significantly associated with tolerance, but the effect is not always positive. We conclude by discussing the implications of these patterns and their impact on our understanding of urban tolerance.

INTRODUCTION

Social scientists have long maintained an interest in the effects of city life on residents. The classical theorists believed most of these effects resulted in negative outcomes like alienation and isolation (Simmel, [1903] 1997; Wirth, 1938). However, they also believe that the urban environment was capable of producing some outcomes of a more positive nature. In particular they argued that cities make urbanites more tolerant of differences in others (Stouffer, 1955). From this perspective, city life includes a shift from primary to secondary interpersonal relationships, from insular traditionalism to metropolitan modernity, and from demographic homogeneity to diversity; all factors which classical theorists believed would render individuals less involved in, and less judgmental regarding, the affairs of others (Wirth, 1938).

This positive perspective on urban life persists to this day and much empirical work supports it. While many studies, both classical and contemporary, have found a positive relationship between cities and tolerance, the majority of available research is limited in that it examines a sample consisting of only one nation, usually the United States (e.g. Abrahamson and Carter, 1986; Carter et al., 2005; Fischer, 1971; Sharp and Joslyn, 2008; Tittle, 1989; Tittle and Stafford, 1993; Tuch, 1987; Wilson, 1985) and none, that we are aware of, examines it cross-nationally to see what patterns hold across social contexts. Consequently, we know a great deal about the effects of urban life in the United States and in other specific contexts (e.g. Hodson et al., 1994), but considerably less regarding urbanism *in general:* as it applies across societal contexts. It cannot be assumed that the relationships found in one country generalize to all other countries.

Another drawback of the extant body of knowledge regarding tolerance and urban life is that most studies examining the effects of urbanity focus only on measurements of the locally

experienced city environment, not on the overall urbanization of a given nation or *societal* urbanization. This is problematic in that classical urban theory places a strong emphasis on the perspective that urbanization is not only a characteristic of local environments that can be immediately experienced by individuals, but that it is also a macro-level process of social transformation that influences large geographic areas (Fischer, 1975a). Here, urbanization constitutes a major component of a massive and sweeping set of changes that transform a society from an earlier or traditional form to one of urban modernity grounded in rationalism (e.g. Maine, [1862] 1960; Tonnies, [1887] 1940). Classical theory suggests these changes would be experienced first, and most strongly, in cities, but these were considered only the vanguard of a total, societal transformation. To our knowledge, no study to date has examined tolerance as an outcome of urban factors that operate beyond the local level.

This study contributes to our current understanding of the significance of urban environments and, specifically, the relationships between these and tolerance by addressing important drawbacks in the literature. We expand on previous research through 1) the examination of a large cross-national sample that enables a more comparative analysis of the effects of city living, and 2) the use of multilevel modeling methods that allow us to study the effects of urbanity on both the locally experienced level as well as a more removed, societal level as argued for by classical urban theory. We discuss the implications of our findings for both urban theory and future work, ultimately highlighting the cross-national importance of the urban environment on psychological states and the need for continued inquiry in this area of research.

URBANISM AND SOCIAL LIFE

Classical Urban Theory and Tolerance

The 19th and early 20th centuries bore witness to an unprecedented period of urbanization: of centralized population explosions accompanied by industrialization and technological innovation (Chandler, 1987). Social scientists in Europe and North America, where these phenomena were experienced most acutely, were especially concerned with the changes underway and developed a body of theory to make sense of the social transformations that accompanied them. Louis Wirth (1938) synthesized the most concise statement to emerge from this school of thought. Foregoing the use of arbitrary thresholds, Wirth stated that the city can be defined as a "permanent settlement" that is "relatively large, dense, and […] socially heterogeneous" (1938, p.8). As these three factors increase in magnitude for a particular place, that place is more urban in nature. According to Wirth and other early theorists, urbanization brought about numerous social, behavioral, and psychological outcomes of urban life (Fischer, 1975b). Wirth, like the majority of other classical treatments, emphasized the negative consequences of urban environments like alienation and impersonal relations (cf. Maine, [1862] 1960; Tönnies, [1887] 1940). However, he also linked the city to some positive outcomes. Of particular concern to the current study, he and others in this tradition believed urbanites were more tolerant of differences in others and of alternative ways of life (Stouffer, 1955; Wirth 1938). This trait is direct outcome of the characteristics of urban life described above: from the social conditions arising out of population size, density, and heterogeneity.

First, according to Wirth (1938) cities are marked by an increase in crude population size. It is impossible for each person to know or interact with each other person, as would be the case in a smaller setting, much less to do so deeply and meaningfully. Thus, as population size

increases, a greater proportion of people become unknown strangers while most relationships with known others tend to be superficial, temporary, and impersonal: people become less involved in each others personal affairs. Second, a greater population allows for a greater concentration or density of people within a finite area. This in part reinforces the outcomes of crude population size, but also carries with it further significant consequences. For example, the presence of numerous people within a relatively small area constitutes an excess of 'nervous stimuli' (Simmel, [1903] 1997) which the individual is incapable of dealing with in their entirety. Instead, one must develop a protective 'metropolitan blasé attitude' whereby only those stimuli deemed of crucial importance are acknowledged and, even then, are dealt with fleetingly and superficially. In terms of its unique effects, Wirth notes, drawing on Durkheim ([1893] 1984), that density "tends to produce differentiation and specialization, since only in this way can the area support increased numbers" (1938, p.14). This, along with immigration to the city, results in the third influential characteristic of urban life: social heterogeneity. Not only are there many people in the city, there are also many *types* of people and a variety of ideas and practices with which to contend. This variety, contributes further to the weakening of traditional social order, with its emphasis on a monolithic sense of order and propriety (cf. Redfield, 1947), and further inhibits the individual's ability to meaningfully acknowledge and absorb such differences. This exposure to diverse types of people and ways of life along with weakening interpersonal bonds and strict, traditional standards, contribute to an urban personality that is both used to diversity and tolerant of differences.

More recent inquiries following in the urban tradition further elucidate the mechanisms through which urban environments contribute to social tolerance. Anderson (2011), for example, suggests that cities are more likely to contain interactional settings in which people can learn to

be tolerant of differences in others. Heterogeneous groups occupy these public or quasi-public settings, which he calls 'cosmopolitan canopies.' No single group dominates or claims exclusive influence over these spaces, and people can casually interact on more-or-less equal terms. Given the range of categorical types present and the lack of a dominant group, behavioral expectations are relaxed and "there is little sense of obligation to the next person other than common civility" (2011, p.275). Anderson argues that experience within these spaces teach lessons of tolerance which spread beyond the cosmopolitan canopy.

Similarly, Lofland (1998) argues that the city's "quintessential social territory" (1998, p.9) is the public realm. This consists "of those areas of urban settlements in which individuals in copresence tend to be personally unknown to one another" (1998, p.9). Thus, interactions in the public realm occur mainly between strangers: people who lack intimate knowledge of each other, having only rough categorical knowledge (e.g. age, race, class, occupation, etc.). Repeated interactions with others who are categorically different yields greater tolerance: people learn that they "can act together… without the necessity to be the same" (Lofland 1998, p.242).

In short, for many decades, urban researchers have argued that the same forces which weaken strong social bonds in the city also weaken strict, judgmental expectations for one another. Thus, we can expect that:

H_1: The more urban a place is, the more tolerant its residents will be

However, it is also possible that urbanism operates beyond the environment immediately experienced by the individual. Specifically, macro-level transformations that operate at a societal level may also influence individual attitudes (see Debies-Carl and Huggins, 2009 for a complete discussion of this argument). A full test of urban tolerance must take into account this perspective. This perspective revisits the arguments of the classical determinists that "evolved

centrally around a concern for the consequences of the Great Transformation" (Fischer 1975a, p.67): a massive and sweeping set of changes that transformed a society from that of a more 'primitive' or traditional form to one characterized by urban modernity (e.g. Maine, [1862] 1960; Tonnies, [1887] 1940). Theorists believed this phenomenon would occur first, and most strongly, in cities, but these were only the vanguard of a total, societal transformation. Even decidedly non-urban areas would nonetheless be influenced by the urbanization within that society as a whole.

There are a number of ways in this which this might occur, all stemming from the inter-connectivity of urban and rural areas. First, the influence of cities extends beyond their borders. They produce culture, including consumer goods and mass media as well as the norms, customs and symbolic meanings attached to these (Zukin, 1995). This culture diffuses beyond the city into the rest of society. Second, the city and the country are not isolated from each other. Rather, there is considerable interaction between the two. Innovations in telecommunications, transportation, and media allow a considerable degree of such interaction. These various forms of interaction provide additional mechanisms whereby urban traits—like tolerance—may be diffused throughout society. Indeed, Wirth (1938) and others (e.g. Glenn and Hill, 1977) believed that this would eventually lead rural residents to be no different than urbanites in terms of their attitudes and other traits. This assertion has been largely supported by contemporary work (Carter et al., 2005; Carter 2010; Tuch, 1987; but see Abrahamson and Carter 1986 for contrary findings), lending further support to the importance of societal urbanism. Finally, just as the city and country are not isolated from one another, neither are they autonomous. Cities and rural areas are not isolated, autonomous zones but are rather interdependent land-use patterns within the same society, "derivative from the national social structure… differentiated subunits

of society, integrated in functional relationships" (Fischer 1975a, p.69). The division of labor within complex societies requires both urban and rural areas, each specializing in different tasks but dependent on the work of the other. For example, rural areas are essential for food production and primary resource extraction whereas cities provide important financial services and governance. Guldin describes the resulting societal form as "a dense web of transactions [that] ties large urban cores to their surrounding regions" (2001, p.17). This interdependence provides further opportunity for urban-rural diffusion.

Within this framework, it is not only the immediately experienced crowd or other nervous stimuli of city life that influence personality traits, but also increasing urbanization and regional integration within the structure of society itself. At the very least, urbanization measured at the societal level, may serve as an approximation of what individuals experience in their everyday lives in terms of the urban conditions within a given society.

H2: The more urban a society is, the more tolerant its citizens will be

Contemporary Urban Theory and Reconceptualizing Tolerance

Despite many years of debate, there remains considerable disagreement regarding the specific nature of tolerance and its causes. Tolerance has figured prominently in Western social thought since at least the time of the 'Wars of Religion' (Mendus, 1989) between Catholics and Protestants in Europe. Whereas it was previously assumed that social order required a single, shared religion, the emerging concept of tolerance suggested that followers of different faiths could cooperate and coexist within the same society. Since then, the concept has expanded to apply to a range of socio-demographic and cultural categories of diversity like race, gender, political orientation, and sexuality. Overall, scholarship of tolerance tends to emphasize an

attitude of inclusiveness regarding diversity (Florida, 2012), especially the extent to which minority populations otherwise susceptible to discrimination are accepted in society (Forst, 2004; Viegas, 2007). Similar themes are prevalent throughout the classical literature as described above. Tolerance so conceived in the urban tradition refers to "a willingness to 'put up with' or allow expression of ideas or interests that one rejects, and willingness to treat others according to universalistic criteria that are independent of any particular difference between self and others" (Wilson, 1985, p.6-7). Mumford, for example, seems to be describing this form of tolerance as a product of life in the city when he notes that "the deeply rutted ways of the village cease to be coercive and the ancestral goals cease to be self-sufficient: strange men and women, strange interests, and stranger gods loosen the traditional ties of blood and neighborhood" (1938, p.5).

More recent approaches to urbanism require alternative conceptualizations of tolerance that must be considered when studying its antecedents. A case in point is Fischer's (1975b) highly influential outline of a 'subcultural theory of urbanism'. Like those before him, Fischer argued that population size, density, and heterogeneity had important effects on individuals but that these were different from those posited by earlier theorists. Specifically, the scale of urban life actually enables new forms of cohesion and social bonding rather than always leading to the breakdown of collective bonds. In smaller settings, individuals with "unconventional" (which Fischer broadly defines as contrary to anything traditional or orthodox) interests, values, or behaviors are likely to be isolated because the odds of encountering others with similar qualities are also small. As the size of a place increases, and with a corresponding increase in heterogeneity, such individuals run a greater chance of encountering each other and a "critical mass" may be reached in which a subculture is formed based on these shared, unconventional traits. These subcultures maintain an alternative or unconventional system of norms and

behaviors which diffuse through the urban environment. Stemming from this process, he argues, cities become characterized by a wide range of such unconventional subcultures, by the diffusion of unconventionality (Fischer, 1975b, 1984, 1995). Moreover, as Tittle adds, "since diffusion of various ideas and life styles is supposedly promoted by contact among subcultures in larger places, population size should generate greater… tolerance for, unusual or unconventional behavior" (1989: 271).

Inspired in part by Fischer's work, many studies in recent years have demonstrated that cities have significant effects on their residents net of demographic composition (e.g. Debies-Carl and Huggins, 2009; Geis and Ross, 1998; Tittle and Grasmick, 2001). Several studies have specifically tested the hypothesis that urbanites are more tolerant of differences in others than their rural counterparts. Of these, the majority have indeed found this to be the case even while controlling for these other extraneous factors (e.g. Abrahamson and Carter, 1986; Carter et al., 2005; Hodson et al., 1994; Jang and Alba, 1992a, 1992b; Stouffer, 1955; Tittle, 1989; Tittle and Stafford, 1992; Tuch, 1987; Wilson, 1985, 1992) while only a few have failed to support this hypothesis (e.g. Marcus et al., 1980; Tittle and Grasmick, 2001).

Most studies of this sort examine tolerance of cultural and demographic differences such as ethnicity or race (e.g. Carter et al. 2005), but Fischer's theory expands the range of subjects that urbanites might be tolerant of by offering a different mechanism by which tolerance is produced. As outlined earlier, the determinists believed social breakdown produced a reasoned indifference to superficial differences like ethnicity since, for example, there is no longer a monolithic normative worldview that takes offense to such diversity. This sort of tolerance would not necessarily extend to behaviors which violate behavioral norms or to types of people believed to pose an actual threat. For Fischer, it is not social breakdown that leads to tolerance,

but the creation and diffusion of a widening range of normative practices. Individuals thus expand their normative sensibilities rather than shut them down entirely. Indeed, many contemporary discussions of tolerance take on a normative, rather than a pluralistic, perspective by suggesting that tolerance should be thought of as a form of acceptance of non-conformity not just an acceptance of diversity (Johnson, 1978; Khan et al., 2007) Here, tolerance produced via the mechanisms specified through subcultural theory applies equally to topics beyond demographic diversity such as deviance and crime since these activities are often attributed to subcultural unconventionality (see Sampson and Bartusch, 1998). This important matter will be returned to below where we discuss the measurement of tolerance.

Summary

In the analysis that follows, we examine the effects of urban environments on individual attitudes of tolerance. We maintain sensitivity to competing conceptualizations of tolerance: tolerance of different demographics and cultural categories of people, but tolerance of deviant or stigmatized behavior. We expect that factors which measure urbanization should increase tolerance at both the local and societal level. Moreover, we expect that both sets of variables should have a positive effect on individual tolerance even in the presence of each other, as they capture two ways that urban environments can influence tolerance.

DATA AND METHODS

To fully explore the relationship between place and tolerance, we analyze individual-level data nested in societal-level data using multilevel modeling techniques. The individual-level data come from the latest wave of the World Values Survey (WVS) collected from 2005 to

2009. The WVS has been collected in five waves since 1981 and is a cross-national, representative survey conducted by leading social scientists in the participating nations. These five waves of data provide valuable information on the different worldviews of people from a variety of nations, their values and beliefs, and how these values and beliefs have changed over time (World Values Study Group, 2005-2009). We use the fifth and most recent wave of the survey data, which contains data collected from respondents in 48 countries. While all the individual-level data come from the WVS, the societal-level data come from a variety of cross-national sources of societal-level measures of urbanity and economic development. These societal-level data sources are described in greater detail in the variable section below.

One of the limitations of the WVS is the presence of a considerable amount of missing data. For this reason, the analysis only includes 29 of the 48 countries included in the fifth wave of the WVS (A list of the included countries is included in an appendix). We removed countries from the analysis because the dependent variable (tolerance) was not asked, because there were missing data at level 2, or because of missing data at level 1 for the entire size of town variable. Listwise deletion of the remaining cases results in a final total of 34,686 cases. Although there are many methods of dealing with missing data, there are no methods that account for the potentially nested structure of the WVS data. Any method, including multiple imputation procedures, potentially creates as much bias as listwise deletion of missing data. Thus, for parsimony, we opt to simply remove the cases that contain missing data. Table 1 presents the number of cases and descriptive statistics for all variables after listwise deletion.

TABLE 1 ABOUT HERE

Table 1. Descriptive Statistics

Factor	N	Mean	Std. Dev.	Min	Max
Dependent Variables					
Tolerance of Difference	34686	4.14	1.35	0	5
Tolerance of Threat	34686	1.82	1.3	0	4
Individual Level Predictors					
Size of Town	34686	4.61	2.56	1	8
Full-time Employment[1]	34686	0.31	0.46	0	1
Other employment[1]	34686	0.21	0.4	0	1
Male[2]	34686	0.49	0.5	0	1
Income	34686	4.86	2.32	1	10
Education	34686	5.25	2.41	1	9
Age	34686	42.07	16.81	15	97
Country Level Predictors					
Population	29	17.18	1.72	13.63	20.83
Density	29	102.36	97.26	2.65	374.44
Ethnic Fractionalization	29	0.44	0.24	0.06	0.78
Linguistic Fractionalization	29	0.41	0.27	0.05	0.87
Religious Fractionalization	29	0.49	0.23	0.1	0.82
GDP	29	11419.88	11420.23	666.29	37312.46

Notes:

All values are reported before multiple imputation

[1] Reference is "unemployed"

[2] Reference is "female"

Tolerance is the focus of this analysis; specifically, the individual and societal factors that influence tolerance. To measure tolerance, we used several measurements from the World Values Survey, which provides a series of questions where respondents were asked whether or not they would like to have various types of people as neighbors. In an exploratory factor analysis, these indicators loaded on to two factors, each of which was used in this analysis as a dependent variable. Each dependent variable was coded such that higher values indicated greater tolerance, that there were fewer types of people which respondents mentioned they would mind having as neighbors. The first factor included the questions regarding whether respondents would mind neighbors who spoke a different language, were unmarried couples, were of a different religion, were immigrants/foreign workers, or were of another race. In the analysis, these items loaded onto a single factor with an eigenvalue of 2.39 with a Cronbach's alpha of 0.77. The scale created from these items ranged from 0 to 5, with a mean of 4.12 and a standard deviation of 1.37. These items form a scale of "tolerance of difference", in that their common bond is potential neighbors that are culturally different or behave in culturally different ways. The scale closely corresponds to the conceptualization of tolerance posited by classical urban theorists as we discussed in the preceding section.

The second scale included the questions regarding whether respondents would mind living next to heavy drinkers, homosexuals, people with AIDS, and drug users. These items loaded on a factor with an eigenvalue of 1.15 with a Cronbach's alpha of .64. The scale created from these items ranged from 0 to 4, with a mean of 1.74 and a standard deviation of 1.30. These items form a scale of "tolerance of threat." Here, the scale does not measure differences per se, but differences that might be perceived as being especially deviant or criminal. Two of

the four factors that constitute our tolerance of difference scale most clearly exemplify this possibility: it is not likely that neighbors who are heavy drinkers or drug users simply represent alternative cultural practices. Instead, neighbors may view these groups as norm- or law-breakers and as more threatening. Drugs, for example, are strongly linked to violence and criminal behavior (Goldstein 1985). The presence of homosexuality and AIDS in this scale might at first seem less obvious. However, several studies have note how intolerance of homosexuals remains one of the great remaining biases around the world, even in many parts of the developed world (Florida, 2012; Inglehart and Welzel, 2005). On account of this distinctiveness, studies like these often use tolerance of gays and lesbians as an indicator of social tolerance more generally. Moreover, much research has illustrated a link between homophobia and fear of contracting AIDS (e.g. Herek and Capitanio 1999, Summers 1991). Linked erroneously to homosexuals, respondents might view both as especially threatening in many parts of the world rather than just presenting a cultural difference or cultural difference (Maughan-Brown 2010).

While both of these measures represent aspects of tolerance, in a sense, they are not the same. Though significant, their bivariate correlation is modest at best (.2436, $p < .001$) suggesting as much. To the extent that it represents cultural and demographic differences, the tolerance of difference measure fits the expectations of both determinist and subcultural theories of urbanism. The tolerance of threat measure, on the other hand, goes beyond these simple differences and includes deviant or unconventional behaviors and statuses that can be perceived as threatening in a way that goes beyond mere xenophobia. Thus, this measure of tolerance is better suited for evaluating the claims of subcultural theory as outlined above (e.g. Fischer 1975b).

We estimate multilevel models of tolerance because we are analyzing data where individuals are nested within countries. With nested data, multilevel models are superior to ordinary least squares (OLS) regression because OLS assumes independence of observation that is not present in nested data (Raudenbush and Bryk, 2002). We estimated Poisson models assuming constant exposure. These are two-level models with random intercepts. These models are appropriate because the evaluation of tolerance indices are essentially count models with every respondent being asked the same questions about groups they would or would not tolerate. Thus, the dependent variables are counts of how many groups the individual would tolerate and all respondents have constant exposure to the counting procedure (questions being asked). This violates assumptions of linearity of dependent variable values, making traditional HLM models insufficient. Instead, we use the xtmepoisson procedure in STATA 11 to estimate our models.

Individual-level variables include size of town of residence, employment status, sex, income, education, and age. We operationalize size of town as an eight category variable ranging from "less than 2,000" to "500,000 or more" with the information provided by the WVS survey administrator. This measure operates as an indicator of urbanity directly experienced by each respondent. We use size of place as a proxy for urban environments for all measures at this level of measurement because no other measures are available in the WVS. While this is not ideal, we believe we still provide a reasonable test of urban tolerance for several reasons. First, using size of place in this manner is typical of research on tolerance and urbanism more generally (e.g. Abrahamson and Carter, 1986; Carter et al., 2005; Tuch, 1987; Wilson, 1991). Moreover, as Tittle has noted (1989), of the three factors that comprise urbanity (i.e. population size, density, and heterogeneity) Wirth emphasized size of place most strongly. Similar to Tittle's study, the current report can be conceived of as not encompassing all possible effects of

urban settings, but rather as "permit[ting] a systematic comparison… with respect to this particular aspect of urbanness" (p. 274). The measures of tolerance, both of difference and threat, and the size of town measure are similarly correlated. The bivariate correlation for tolerance of difference and size of town is .0772 ($p < .001$), whereas for tolerance of threat the bivariate correlation is .0446 (($p < .001$ level). Finally, we provide more diverse measurements of urbanity at the societal-level of measurement, as described below, allowing us to more fully investigate the hypothesized effects of societal urbanism at the heart of the study.

We also include several common control variables at the individual-level. Employment status is included as two dummy variables "employed full-time" (including self-employment) and "other employment" (part time or other contingent employment) with no employment (including those unemployed or out of the work force) as the reference category. Sex is measured as a dummy variable with female as the reference category. The income measure places respondents in the decile in which the total household income falls relative to the range of incomes in the country. The range is from 1 (lowest ten percent) to 10 (highest ten percent of household incomes in country). Education is measured with a nine category ordinal variable, with the lowest category "no formal education" and the highest category "university-level education, with degree." Finally, age is a continuous variable ranging from 15 to 98. These variables serve as controls to ensure that socio-demographic compositional factors are not the spurious cause of any apparent relationship between urban environments and individual traits (Gans, 1962).

The societal-level variables include total population, population density, ethnic fractionalization, linguistic fractionalization, religious fractionalization, and gross domestic product. We include these to measure the more distal influences on tolerance, such as urbanity

and composition. The level of urbanization at the societal-level is measured by population, density, and the three fractionalization variables. Accounting for the size, density and heterogeneity of a population (Wirth, 1938), these three variables capture the urbanity of a whole society. GDP serves as an important control of the wealth and development of the countries in this analysis.

The data for the societal-level variables come from two sources. Population is measured in 1000s and logged for skewness. Density is measured as total population divided by land area. Both population and density are drawn from the World Development Indicators dataset (World Bank, 2008). All three fractionalization measures come from Alesina et al. (2003) and range continuously from 0 to 1, with 1 indicating a perfectly fractionalized society and 0 a perfectly homogeneous society. Gross domestic product (World Bank, 2008) is the GDP per capita for each society, logged for skewness. These society-level variables examine the more distal influences on tolerance.

In addition to the level 2 variables cited above, our multilevel models of tolerance include aggregated measures of all our level 1 variables. We do so to avoid a common problem that many multilevel analyses ignore: the concept of convergence. Failing to include level 1 variables at level 2 essentially combines the within and between effects in the level 1 coefficient. To combat this, we include mean centered aggregates at level 2, and group mean centered variables at level 1.

RESULTS

Table 2 presents the results of the multilevel regressions for the "tolerance of difference" and the "tolerance of threat" dependent variables. Model 1 contains a random intercept Poisson

model for tolerance of difference. Model 2 contains a random intercept Poisson model for tolerance of threat. These models describe the extent to which individual and societal level factors predict two types of tolerance. Both models report incidence rate ratios for factors, which represent the incidence rate ratio increase or decrease for a one unit-change in an independent variable with all other variables being held constant. To ease interpretation, level 1 factors, except dummy variables, were group-centered (by country), while level 2 aggregate factors were centered to their mean.

TABLE 2 ABOUT HERE

Model 1 shows the importance of controlling both individual-level and societal-level factors in assessing tolerance of difference. Size of town, full time employment, and education are associated with increased tolerance of difference at the individual-level. Most importantly in Model 1, size of town is directly associated with tolerance of difference, with a one unit increase in the size of town measure resulting in an increase of 1.005 times the rate of reported tolerance. Essentially, this finding suggests that the larger the context an individual resides within yields greater feelings of tolerance of difference.

Continuing with Model 1, individuals with full-time employment feel more tolerance of difference than the unemployed. Education also has a strongly positive effect on tolerance of difference. Employment and education may represent ways in which individuals come into contact with or learn about other cultures, increasing tolerance, or it may make individuals more reticent to be viewed as intolerant.

Focusing on societal-level factors, both aggregate measures of individual level variables and pure societal-level variables are significant predictors of tolerance of difference. Aggregate size of town and aggregate education, included in the model to overcome the problem of

Table 2. Poisson Hierarchical Regression for Tolerance of Difference and Threat

	Tolerance of Difference			Tolerance of Threat	
Factors	IRR		s.e.	IRR	
Individual Level					
Size of Town	1.005	***	0.001	1.006	**
Full time[1]	1.015	*	0.018	1.031	**
Other employment[2]	1.010		0.007	1.041	***
Male[2]	0.993		0.005	1.009	
Income	1.002		0.001	1.004	*
Education	1.005	***	0.001	1.005	*
Age	0.999		0.000	0.997	***
Country Level					
Aggregate Size of Town	1.044	*	0.018	1.164	**
Aggregate Full time	1.347		0.329	2.697	
Aggregate Other	1.212		0.195	1.248	
Aggregate Male	0.838		0.502	0.884	
Aggregate Income	0.966		0.022	1.139	*
Aggregate Education	0.954	*	0.018	0.743	***
Aggregate Age	1.007		0.006	1.013	
Population	0.965	**	0.011	0.993	
Density	1.000		0.000	1.002	**
Ethnic Fractionalization	1.119		0.113	0.711	
Linguistic Fractionalization	0.816	*	0.074	1.088	
Religious Fractionalization	1.025		0.077	0.634	*
GDP	1.000	*	0.000	1.000	**

Notes:

*** p. < .001, ** p. < .01, *p. < .05 (one-tailed)

[t] p. < .05 (two-tailed)

[1] Reference is "unemployed"

[2] Reference is "female"

convergence, show that societal composition may be an important predictor of tolerance of difference. Essentially, these variables mean that the greater the amount of a population that is living in larger localities and the greater the amount of a population that is educated have an independent effect on tolerance beyond where someone lives or their own education. Other societal-level predictors that are significant include population size, linguistic fractionalization, and GDP. While ethnic or religious fractionalization are not significantly related, linguistic fractionalization is associated with reduced tolerance of difference, decreasing the incidence rate by a factor of 0.816 for every unit increase in linguistic fractionalization. This means that the lack of a dominant cultural language may create more dissension within a society. GDP is directly associated with greater feelings of tolerance of difference, although it is not a measure of urban environments, indicating that respondents living in a wealthier nation are more tolerant than respondents living in poorer nations. One societal-level measure of urbanization is significant and negatively related to tolerance of difference: population. Thus, size of a population at the societal-level is associated with lower levels of tolerance of difference, decreasing the incidence rate by a factor of 0.965 for every unit increase in population. An individual's residence increases tolerance as it grows (and presumably becomes denser), but at the societal-level larger populations are less culturally tolerant. This is discussed further below.

Model 2 tests the individual-level and societal-level effects on tolerance of threat. Of the individual-level variables, all, except gender, are significant predictors of tolerance of threat. Size of town, employment, income, and education are all positively related to an increased tolerance of threat. For size of town, a one unit increase in the size of town measure results in an increase of 1.006 times the rate of reported tolerance. Age is negatively related with tolerance of threat. Much like the models for tolerance of difference, employment, income and education

could all indicate ways in which individuals encounter the world that may mitigate intolerance towards people who behave in these non-traditional ways. The only negatively significant variable in this model, age, indicates that as people get older, on average they become more intolerant of others in terms of the perceived threats that they can represent.

Continuing on to societal-level effects on tolerance of threat, once again both aggregate and pure societal-level variables are significant predictors. Aggregate size of town and income are positively related, whereas aggregate education is negatively related. As for the other societal-level variables, density, religious fractionalization, and GDP are significant predictors of the dependent variable. Like in the tolerance of difference models, GDP and density are positively related with tolerance of threat, suggesting that wealthier societies are generally more tolerant than poorer societies and that the cosmopolitan effect of cities may also increase tolerance. A one unit increase in density results in a 1.002 times increase in the incidence rate for tolerance of threat. The small effect sizes of density and GDP represent a larger impact because of the population affected by such societal factors (Fischer, 1975a). While more remote than individual level factors, these societal level factors still affect tolerance. Religious fractionalization, like linguistic fractionalization in the previous model, indicates that greater cultural disparity yields less tolerance. The incidence rate of tolerance of threat decreases by a factor of 0.634 for every unit increase in religious fractionalization.

While to this point we have only discussed the direction and significance of the variables in our models of tolerance, the amount of explained variance also sheds insight on the importance of societal level factors. In empty models not reported, where no factor variables are included, the variance component was 0.023337 for tolerance of difference and 0.1465199 for tolerance of threat. Variance components for the full models were .0037621 and .0317734,

respectively. The reduction in variance shows that the included variables account for 83.8% of the variance in tolerance of difference and 78.3% of the variance in the tolerance of threat. The included variables explain most of the between country difference in both forms of tolerance.

In analyses not reported in Table 2, several interaction terms were created and modeled for the tolerance of difference dependent variable that seemed reasonable based on the theory discussed above (e.g. the interaction of level 2 urbanization variables with size of town at level 1). None of these were significant, suggesting that the significant relationships found are direct in terms of their influence.

When comparing the results of the models in Table 2, it becomes clear that both individual and societal-level effects on tolerance differ based on the type of tolerance being analyzed. Tolerance of difference is not the same as tolerance of threat. While some measures were consistent in significance and direction, others were not. This is a pattern that becomes clearer the more specific one's measure of tolerance is. In models not reported, analyses revealed that breaking these index measures of tolerance apart led to idiosyncratic results for each measure. In other words, using responses about each potential neighbor ("Heavy drinker", "Someone who speaks a different language", etc.) as a dichotomous measure of tolerance created very different outcomes on both variables of theoretical interest and control variables. While patterns emerged (which helped lead to the factor analysis that resulted in the indexes), any given dependent measure of tolerance had different results than any other measure of tolerance. Creating the tolerance of difference and tolerance of threat indices proved fruitful in obtaining a fuller picture of how urbanism and tolerance are related, a relationship further discussed in the next section.

DISCUSSION AND CONCLUSION

In this paper, we have reexamined the idea that cities are bastions of tolerance. Building on and extending previous work on this topic, we tested this hypothesis using a comparative cross-national sample and by measuring urbanization on two levels: the local and the societal. Our results, in part, support the findings of previous researchers who have examined this topic. However, these results have also yielded interesting findings about how cities influence tolerance that diverge from this prior work, and direct our attention to other ways in which urbanism continues to be important across societies.

Two key contributions of this study to current understandings of the effects of city life on individual psychology are in regards to its comparativeness and its incorporation of measurements of urbanity beyond the local level. First, as noted earlier, most previous work in this area examined urban predictors of tolerance in a single society, particularly in the United States, and only on a local level (e.g. Abrahamson and Carter, 1986; Carter et al., 2005; Fischer, 1971; Tittle, 1989; Tittle and Stafford, 1992; Tuch, 1987; Wilson, 1985). It cannot be assumed that such findings can be generalized across social contexts. We retested the relationships of urban environments and tolerance using a large, cross-national sample. The results of this study are consistent with the findings of this existing body of work. We found that the immediate, local urban environment (i.e. size of town) was positively related to two types of tolerance across the various nations in the sample. This finding alone is important, in that it verifies an urban effect on tolerance beyond the United States where most previous work took place, thus identifying a pattern of global significance.

Secondly, including urban factors at the societal level in the analysis permitted us to examine the claim that urbanization is not just a local phenomenon, but an important part of a

larger social context (Maine, [1862]; Tonnies, [1887] 1940; Wirth, 1938). With only a few exceptions (e.g. Carter, 2010; Debies-Carl and Huggins, 2009) very few empirical studies have investigated this claim previously. In our study, we found several distal indicators of urban environments be significantly related to tolerance. This suggests that urbanization is indeed a factor of societal, and not only local, relevance. However, this relationship was not as straight-forward as urban theory proposes. The effects of distal urbanity on tolerance varied depending on: 1) the type of tolerance being predicted, and 2) the specific aspect of urbanity under consideration (i.e. population size, density, etc.).

First, it is evident that when conducting an analysis of tolerance, it is important to consider what *type* of tolerance is being predicted. The two scales of tolerance investigated here differed somewhat from one-another in terms of what their significant predictors were. These differences, while present with the control variables, are especially important to note regarding the test variables. While the positive effects of the size of a town were consistent across both tolerance scales, as were many control variables, most of the distal urban predictors were not. Indeed, the majority of these had a significant impact on only one tolerance scale or the other. While these varying results are interesting, they are not entirely surprising in light of competing discussions describing how city life is expected to inculcate tolerance in individuals.

As we described earlier in this paper, theorists in the classical tradition believed urban environments brought people into greater contact with different ways of life (Wirth, 1938; Mumford, 1938), weakened the monolithic sense of propriety present in traditional social forms (Redfield, 1947), and encouraged self-interested and 'rational' judgments over moralistic or emotional judgments (Simmel, 1997). Generally speaking, arguments of this sort more closely relate tolerance of cultural diversity and other attributes that may be shocking simply because of

their difference or lack of familiarity. This in turn expresses a concept similar to the "tolerance of difference" scale which, it will be recalled, measured tolerance of neighbors who spoke a different language, were unmarried couples, were of a different religion, were immigrants/foreign workers, or were of another race. The positive effect of a 'size of place' on this scale provides some support for this perspective.

The classical arguments apply less well, however, to our 'tolerance of threat' scale. This measurement corresponds much more closely with the conceptualization of tolerance, and its antecedents, laid out in Fischer's (1975b) subcultural theory of urbanism. Again, here it is not difference itself which individuals would consider problematic in a neighbor—it is not an issue of xenophobia—but traits that are seen as deviant or criminal (e.g. drug-use, etc.), as especially threatening in some way. As we outlined above, this theory proposed that it is not social breakdown of norms and expectations that yields tolerance (i.e. the classical approach), but rather the formation of unconventional subcultures, along with their alternative systems of norms and behaviors, whose influences diffuse through urban environments. Fischer's subcultural theory links urban environments to both tolerance of difference and tolerance of threat—both of which we have found to be significantly related to urban predictors—whereas classical urbanism applies largely only to the former of these. For this reason, we cannot directly observe the competing mechanisms for each theory to determine which is best supported by the data. Future inquiry is needed to more closely compare these competing interpretations of urban life.

In addition to these theoretical concerns, the divergent findings regarding each dependent measure further indicate a need for researchers to be sensitive to what is meant by broad terms like 'tolerance' and to take this careful consideration into account when testing theories of urbanism. Failure to achieve such sensitivity can result in findings in which urban influences are

erroneously considered void of predictive power. For example, this is what happened to an equally broad concept, alienation, in previous work. Discounted for years when conceptualized only as isolation, the idea that urban environments influence feelings of alienation was again validated when alienation was conceptualized in other forms such as powerlessness (e.g. Geis and Ross, 1998; Seemen, 1959).

The above discussion provides a logical explanation regarding why we found some urban factors to be different in terms of their relationships to each scale of tolerance. However, the classical and contemporary theories drawn on for this explanation all suggest a *positive* association between cities and tolerance whereas we also found several negative relationships. To our knowledge, the possibility of a negative effect of urbanity on tolerance has not been raised in any prior work. The divergent findings of the current study however, are not particularly surprising given that, as noted previously, cross-national effects--including those measured at the societal level-- may not parallel the findings of previous work which are generally based on local-level effects within a single society. Just as a negative effect of urbanity on tolerance has not been found previously, neither has it received much direct theoretical consideration. Nonetheless, some possibilities for the negative associations can be gleaned from existing literature.

Contrary to expectations derived from urban theory, three of the distal factors we investigated were negatively associated with tolerance: population size and linguistic fractionalization (for tolerance of difference) as well as religious fractionalization (for tolerance of threat). All of the negative effects occurred at the societal level, which is suggestive but not conclusive given that only one indicator of urbanity was available at the local level. It is possible that these negative effects might be due then to the fact that this aspect of urbanity is not directly

experienced in the everyday environment, as we discussed when introducing societal urbanism above, but represents indirect experience. For example, if one only experiences population size and heterogeneity while watching the news or hearing about them second-hand in conversation, that person does not personalize the encounter or adapt to it as classical theory suggests they would if these were encountered in the environment around them (Simmel, [1903] 1997; Wirth, 1938). Instead, these phenomena remain unfamiliar, perhaps threatening or unnerving reports of "other" places that are more likely to promote fear than tolerance. This possibility is consistent with a large body of research that indicates direct and indirect experiences produce a range of differences on learning in individuals (e.g. Duerden, 2010; Millar and Millar, 1996). However, further research is warranted to investigate this intriguing possibility and how the nature of experience might impact urban outcomes.

Another relevant concern for the unexpected findings associated with density is in regards to the nature of interaction within diverse populations. As described earlier, urbanites are expected to be especially tolerant in part because they encounter a diversity of people and ways of life (e.g. Lofland. 1998). It has been noted in other research (e.g. Liu, 2001), however, that the presence of diverse populations does not necessarily mean increased interaction of those populations. When settlement patterns are marked by segregation or partition, interaction across groups is limited, and tolerance is attenuated. What influence did segregation or other settlement patterns have on our findings? This question, which is further complicated by the significant fact that segregation can occur at various geographic scales (Reardon et al., 2009), is beyond the scope of the current study. However, it suggests fruitful directions for further inquiries that seek to understand urbanism as it operates at multiple levels across societies.

While each of the above possibilities regarding the negative effects of some of our predictors provides a reasonable explanation for the findings, none can be definitively supported from the data currently available and will require further examination by future research. For example, density cannot be directly measured at the local level from our data to determine whether it operates in a fashion similar to that indicated at the societal level. Nonetheless, this study has contributed to our current understandings of urban environments and their influences over social life and psychology.

In summary, it should be emphasized that much current work in urban sociology is inspired by the perspective that urban factors should not matter once demographic characteristics are controlled (Gans, 1962). However, we found that this was not the case with the current study. Controls of this sort were indeed important explanatory indicators of tolerance, yet they did not supersede urban factors entirely. As indicated by our findings, urban environments do have a significant relationship with tolerance. This influence of urban environments and its effects are not as simple as early theorists proposed, nor do they in any way determin*e* an outcome independent of other factors. Yet, urbanism—whether occurring at the local level, the societal level, or both—is an important social force that exhibits a powerful influence over individuals and is deserving of continued attention.

REFERENCES

Abrahamson, Mark and Valerie J. Carter. 1986."Tolerance, Urbanism and Region." *American Sociological Review* 51(2), 287-94.

Alba, Richard D. and Sung Joon Jang. 1992. "Reply to Wilson: Type of Place Matters." *Social Science Quarterly* 73(3), 613-14.

Anderson, Elijah. 2011. *The Cosmopolitan Canopy: Race and Civility in Everyday Life.* New York: Norton.

Carter, J. Scott. 2010. "A Cosmopolitan Way of Life for All? A Reassessment of the Impact of Urban and Region on Racial Attitudes From 1972 to 2006." *Journal of Black Studies* 40(6): 1075-93.

Carter, J. Scott, Lala Carr Steelman, Lynn M. Mulkey, and Casey Borch. 2005. "When the Rubber Meets the Road: Effects of Urban and Regional Residence on Principle and Implementation Measures of Racial Tolerance." *Social Science Research* 34: 408-25.

Chandler, Tertius. 1987. *Four Thousand Years of Urban Growth: An Historical Census.* Lewistown, NY: St. David's University Press.

Coleman, James S. 1990. *Foundations of Social Theory.* Cambridge, MA: Harvard University Press.

Debies-Carl, Jeffrey S. and Christopher M. Huggins. 2009. "'City Air Makes Free': A Multi-Level, Cross-National Analysis of Self-Efficacy." *Social Psychology Quarterly* 72(4), 343-64.

Duerden, Mat D. 2010. "The Impact of Direct and Indirect Experiences on the Development of Environmental Knowledge, Attitudes, and Behavior." *Journal of Environmental Psychology* 30(4): 379-92.

Durkheim, Emile. [1893] 1984. *The Division of Labor in Society.* New York: Free Press.

Fischer, Claude S. 1971. "A Research Note on Urbanism and Tolerance" *American Journal of Sociology* 7(5), 847-56.

-----. 1975a. "The Study of Urban Community and Personality." *Annual Review of Sociology* 1:67-89.

-----. 1975b. "Toward a Subcultural Theory of Urbanism." *American Journal of Sociology* 80(6), 1319-41.

-----. 1984. *The Urban Experience.* San Diego, CA: Harcourt Brace Jovanovich.

-----. 1995. “The Subcultural Theory of Urbanism: A Twentieth-Year Assessment.” *American Journal of Sociology* 101(3):543-77.

Florida, Richard. 2012. *The Rise of the Creative Class: Revisited.* New York: Basic.

Forst, Rainer. 2004. “The Limits of Toleration.” *Constellations: An International Journal of Democratic Theory* 11(3): 312-25.

Gans, Herbert J. 1962. *The Social Order of the Slum.* Chicago: University of Chicago Press.

Geis, Karlyn J. and Catherine E. Ross. 1998. “A New Look at Urban Alienation: The Effect of Neighborhood Disorder on Perceived Powerlessness.” *Social Psychological Quarterly* 61(3), 232-46.

Glenn, Norval D. and L. Hill, Jr. 1977. “Rural-Urban Differences in Attitudes and Behavior in the U.S.” *Annals of the American Association of Political and Social Science* 429, 36-50.

Goldstein, Paul J. 1985. "The Drugs/violence Nexus: A Tripartite Conceptual Framework," *Journal of Drug Issues* 14 : 493-506.

Guldin, Gregory. 2001. *What’s a Peasant To Do? Village Becoming Town in Southern China.* Boulder, CO: Wesview.

Herek, G.M. and J.P. Capitanio. 1999. “AIDS Stigma and Sexual Preference.” *American Behavioral Scientist* 42: 1126-43.

Hodson, Randy, Dusko Sekulic, and Garth Massey. 1994. “National Tolerance in the Former Yugoslavia.” *American Journal of Sociology* 99(6), 1534-58.

Inglehart, Ronald and Christian Welzel. 2005. *Modernization, Cultural Change, and Democracy: The Human Development Sequence.* New York: Cambridge.

Jang, Sung Joon and Richard D. Alba. 1992. “Urbanism and Nontraditional Opinion: A Test of Fischer’s Subcultural Theory.” *Social Science Quarterly* 73, 596-609.

Johnson, E. H. (1978). Crime, correction and society. Homewood, IL: Dorsey Press.

Khan, M.Z., N. Prabha Unnithan, and Archana Dassi. 2007. “Delinquency, Deviance, and Tolerance in a Slum in India: A Quantitative Model.” *Criminal Justice Studies* 20(3): 269–80.

Liu, Baodong. 2001. “The Positive Effect of Black Density on White Crossover Voting: Reconsidering Social Interaction Theory.” *Social Science Quarterly* 82(3): 602 – 15.

Lofland, Lynn. 1998. *The Public Realm: Exploring the City’s Quintessential Social Territory.* New Brunswick, NJ: Transaction.

Maine, Henry James Sumner. [1862] 1960. *Ancient Law.* London: J.M. Dents and Sons.

Marcus, George E., James Piereson, and John Sullivan. 1980. "Rural-Urban Differences in Tolerance: Confounding Problems of Conceptualization and Measurement." *Rural Sociology* 45, 731-7.

Maughan-Brown, Brendan. 2010. "Stigma Rises Despite Antiretroviral Roll-out: A Longitudinal Analysis in South Africa." *Social Science and Medicine* 70: 368-74.

Mendus, Susan. 1989. *Toleration and the Limits of Liberalism*. New York: Macmillan.

Millar, Murray G. and Karen U. Millar. 1996. "The Effects of Direct and Indirect Experience on Affective and Cognitive Responses and the Attitude–Behavior Relation." *Journal of Experimental Social Psychology* 32(6): 561-79.

Mumford, Lewis. 1938. *The Culture of Cities*. New York: Harcourt, Brace, and Co.

Putnam, Robert D. 2000. *Bowling Alone*. New York: Simon and Schuster.

Raudenbush, Stephen W. and Anthony S. Bryk. 2002. *Hierarchical Linear Models: Applications and Data Analysis. Thousand Oaks: Sage.*

Reardon, Sean F., Chad R. Farrell, Stephen A. Matthews, David O'Sullivan, Kendra Bischoff, Glenn Firebaugh. 2009. "Race and Space in the 1990s: Changes in the Geographic Scale of Racial Residential Segregation, 1990-2000." *Social Science Research* 38: 55-70.

Redfield, Robert. 1947. "The Folk Society." *American Journal of Sociology* 52, 293-308.

Sampson, Robert J. and Dawn Jeglum Bartusch. 1998. "Legal Cynicism and (Subcultural Tolerance of Difference: The Neighborhood Context of Racial Differences." *Law & Society Review* 32(4): 777- 804.

Seeman, Melvin. 1959."On the Meaning of Alienation." *American Sociological Review* 24: 783-91.

Sharp, Elaine B. and Mark R. Joslyn. 2008. "Culture, Segregation, and Tolerance in Urban America. *Social Science Quarterly* 89(3): 573-91.

Simmel, Georg. [1903] 1997. "The Metropolis and Mental Life." Pp. 174-85 in *Simmel on Culture: Selected Writings*, edited by David Frisby and Mike Featherstone. London, UK: Sage.

Stouffer, Samuel A. 1955. "Communism, Conformity and Civil Liberties." Garden City, NJ: Doubleday.

Summers, R.L. 1991. Determinants of the Acceptance of Co-Workers with AIDS." *Journal of Social Psychology* 131: 577-78.

Tittle, Charles R. 1989. “Influences on Urbanism: A Test of Predictions from Three Perspectives.” *Social Problems* 36(3), 270-88.

Tittle, Charles R. and Harold G. Grasmick. 2001. “Urbanity: Influences of Urbanness, Structure, and Culture.” *Social Science Research* 30, 313-35.

Tittle, Charles R. and Mark C. Stafford. 1992. “Urban Theory, Urbanism, and Suburban Residence.” *Social Forces* 70(3), 725-44.

Tönnies, Ferdinand. [1887] 1940. *Fundamental Concepts of Sociology* (*Gemeinschaft und Gesellscaft).* New York: American Book Co.

Tuch, S. 1987. “Urbanism, Region, and Tolerance Revisited.” *American Sociological Review* 52, 394-403.

Viegas, J. M. L. 2007. Political and social tolerance. In J. W. van Deth, J. R. Montero, & A. Westholm (Eds.), Citizenship and involvement in European democracies: A comparative analysis (pp. 109-132). London: Routledge.

Wilson, Thomas. 1985. “Urbanism and Tolerance: A Test of Some Hypotheses Drawn from Wirth and Stouffer.” *American Sociological Review* 50, 117-123.

-----. 1992. “Urbanism and Nontraditional Opinion: Another Look at the Data.” *Social Science Quarterly* 73(3), 610-12.

Wirth, Louis. 1938. “Urbanism as a Way of Life.” *American Journal of Sociology* 44(1), 1-24.

Zukin, Sharon. 1995. *The Culture of Cities*. Cambridge, MA: Blackwell.

Appendix: List of countries in the analysis

Italy
United States of America
Canada
Mexico
Australia
Norway
Sweden
Poland
Brazil
Chile
India
Slovenia
Bulgaria
Romania
Uruguay
Ghana
Moldova
Georgia
Thailand
Indonesia
Vietnam
Cyprus
Trinidad and Tobago
Malaysia
Burkina Faso
Ethiopia
Mali
Zambia
Germany