Social Change and Anomie: A Cross-National Study

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We apply Durkheim's social transitional theory to explain the variation of anomie in 30 nations in the world. Combining data from two sources – the 1995 *World Values Survey* and the United Nations University's *World Income Inequality Database* or WIID – we test the hypothesis that rapid sociopolitical change at the structural level disrupts social integration and regulation, and increases the level of anomie among individuals in a society. Using the multilevel approach that permits the decomposition of variance within and between nations, the results of the analyses confirm that rapid sociopolitical change at the macro level, such as the political transition from totalitarianism to democracy, produces a higher level of anomie among individuals in a society. In addition, we find a cross-level effect of confidence in authority on anomie. Findings at the individual level are largely consistent with Merton's theory of anomie and with the extant literature that anomie is inversely related to an individual's social and economic position in a society.

One of the major changes that happened in the last quarter of the 20th century was the third wave of democratization (Huntington 1991). The high point of this wave occurred when the Soviet Empire collapsed in the early 1990s. Eastern European nations broke away from former Soviet Union's dominance and/or control and became democracies. By the mid-1990s, the number of democratic nations had surpassed the number of non-democratic societies in the world for the first time in human history (LaFree 2007). What effects would such political change have on citizens of these societies? The current article attempts to evaluate one of the consequences of democratic transition: the spread of anomie.

Anomie is one of the central concepts of sociology. Since Emile Durkheim, anomie theory has experienced a series of developmental stages from its dormant period (1940s) to a golden age (1950s and 1960s), then a decline (1970s and 1980s) and a revival (from late 1980s to present) (Cullen and Agnew 2003). Numerous studies, both qualitative and quantitative, have been conducted to examine the theory as a whole. Normally, anomie is treated as an independent variable in these studies. We argue, however, that anomie itself needs explanation. There is a reason why Merton (1938) entitled his article "Social Structure and Anomie," not "Social Structure and Crime." The current study, therefore, examines anomie as a dependent variable and advances a linkage between rapid

sociopolitical change and anomie. We hypothesize that rapid sociopolitical change, such as democratic transition, is the structural factor that exerts a powerful influence on anomie of individuals. We test this hypothesis with data from both micro and macro levels.

Theoretical Background

Durkheim (1984[1893],1966[1897]) advances his theory of social transition where he argues that social order is maintained through social integration and regulations in a social equilibrium. All nations develop normative behavior patterns and belief systems in the evolutionary change process. During the transitional period, such as the transition from a rural society to an urban society, the diffusion of new norms and values disrupts the equilibrium of traditional societies and breaks down sacred-religious institutions, traditional beliefs and ascribed status relationships. The new organic social relationships enable individuals to challenge old cultural values and social rules, resulting in the rapid increase of anomie. Durkheim is specifically concerned with the social transition from a rural society with mechanical solidarity to an urban society with organic solidarity and the spread of anomie during this unique period.

Durkheim did not study the democratic transition, but his theory can be readily applied to explain anomie during this situation. Desirable as it may be, the process of democratization is never smooth (Fukuyama 1992; Huntington 1991) because it polarizes the polity, brings out the historical wounds of ethnic conflicts, and provokes civil strife. In addition, the economic wellbeing of a nation deteriorates, to different degrees, during the transition (Duch 1995; King and Sznajder 2006). The transition from a communist authoritarian system to a democracy creates a temporary disequilibrium when new values and norms come into contact with and/or disrupt older social patterns, weakening formal as well as informal social control. Transitional societies, therefore, are associated with growing cultural heterogeneity, or the state of anomie.

Under the communist authoritarian regime, the social order was maintained through draconian measures, and the legal system was built on fear, not on consensus. With its demise, people have become the masters of their fate, and have, for the first time, really enjoyed freedom of choice. Ideally, a liberal democracy is defined by "the extent to which a political system allows political liberties and democratic rule."(Bollen 1993:1208) The enforcement of contracts, regulations, protection of freedoms, and sole claim on the legitimate use of violence allow the state to protect its citizens and guard their freedoms. Via these functions, the state is able to create the space for each citizen to live a "good" life. In reality, the recrudescence of ethnic intolerance and political conflicts has resurfaced in Eastern European nations, and the new social order based on the principles of civil society has not been built up to replace the old mechanisms of social control. As a result, confusion regarding particular or specific norms is generated

from the abundance of new rules and new ways of doing things. This normlessness or confusion of rules is called anomie by Durkheim.

Robert Merton in 1938 borrowed the concept of anomie in his theory of social order. He intends to explain why some societies exhibit higher levels of anomie than do others, and he poses his explanation of anomie in terms of social structure. He is more specific about the nature of anomie as a product of utilitarian behavior (Cullen 1984). He proposes that anomie is a product of the imbalance between the two fundamental components of society – cultural structure and social structure. In a democratic society like the United States, the cultural barrier for upward mobility is removed, but the structural barrier for upward mobility for people in poverty remains. People at the bottom of the class structure, therefore, are more likely to suffer from strain and anomie because the new culture of unlimited economic success exerts pressure to those to take the most efficient means to achieve monetary success. Three themes in his theory are distinctive of Merton's own: democracy is a precondition for the prevalence of anomie (Cao 2004); anomie is not natural, but it is socially induced (Cullen 1984); and inequality is a source of anomie. Poverty *per se* is not a cause of strain and deviance. Merton (1938:681) states specifically that "poverty is less highly correlated with crime in southeastern Europe than in the United States" because the probabilities of vertical mobility in those undemocratic societies "would seem to be fewer than in this country."

Anomie, therefore, is a byproduct of rapid social change (Durkheim 1897) and the adaptive response of an individual in an open stratification system (Merton 1938). Previous tests of the theory, in general, regard anomie as an independent variable predicting such other deviant behavior as suicide and, later, crime and deviance (Bjarnason, Thorlindsson, Sigfusdottir and Welch 2005; Clinard 1964; Durkheim 1897; Merton 1938; Thorlindsson and Bernburg 2004). We hypothesize that rapid sociopolitical change, such as the transition from authoritarian regimes to democracy and social inequality are both important sources of anomie. We capitalize here on a multilevel study of 38,845 respondents from 30 nations in order to highlight sociodemographic and national sources of variation in anomie.

Despite anomie's popularity and its importance in sociology, its meaning is very elusive and varies depending on its different developmental stages and on elaborations by different theorists. Durkheim (1893, 1897) uses the concept, but does not define it. Later theorists (Clinard 1964; Coser 1971; Hilbert 1989) draw basic ideas about anomie from his work. They generally agree that anomie for Durkheim refers to "normlessness." The concept is broad and includes powerlessness, alienation and confusion regarding rules (Fischer 1973; Martin 2000; McClosky and Shaar 1965; Thorlindsson and Bernburg 2004).

Although Merton writes often about anomie, he never provides an explicit definition of this concept either (Messner 1988). In addition, his usage of this concept is inconsistent (Featherstone and Deflem 2003). For example, Levine (1985) finds that Merton employs at least 10 definitions of anomie from 1938

to 1964 and fails to clarify the ambiguities of anomie in his own work. One of the clearer definitions of anomie from Merton appears in his 1964 article, in which, he (1964:227) states, "In a word, the degree of anomie in a social system is indicated by the extent to which there is a lack of consensus on norms judged to be legitimate, with its attendant uncertainty and insecurity in social relations."

A detailed contrast between Durkheim's and Merton's conceptualizations of anomie is summarized in Table 1. Although there are differences between Durkheim and Merton in their conceptualization of anomie, there also seems to be enough convergence between the two scholars in its core meaning. That is, anomie refers to normlessness.

Empirical Tests of Anomie Theory

Through decades of evolution, the concept of anomie has been expanded, spanning both the macro and micro levels. At the macro-societal level, anomie is described as a breakdown of social norms regulating individual behavior and social interaction. It is a social structural phenomenon of society in which norms are rapidly changing or where there are conflicting norms of what is right, good, proper and so on. Thus anomie is a property, not of the individual, but of the social system (Bernard 1987). Although most scholars agree that anomie is a systemic condition and phenomenon, they have not been able to identify a measure to capture the concept at the macro-societal level. After so many years, no agreed-upon measure of anomie at the macro-level has emerged while there are many attempts to create a measure of anomie at the individual level.

Most previous scales of anomie capture a broad sociological meaning of anomie rather than a narrow meaning in the Mertonian sense (Cao 2004). For example, Thorlindsson and Bernburg (2004) advance two measures of anomie for juveniles. One emphasizes the rule-breaking dimension of anomie among adolescents, and the other emphasizes the meaninglessness dimension of anomie. Both measures represent more of Durkheim's conceptual scheme than Merton's. Menard's (1995) operationalization of anomie is also specifically designed for juveniles, but his measure represents more of Merton's conceptual scheme than Durkheim's because it emphasizes the goals-means disjuncture.

For the general population, Sampson and Bartusch (1998) proposed an index of anomie (legal cynicism). This measure focuses on the respondents' agreement with five items that tap issues related to laws and their violation. Although variation in respondents' ratification of acting "outside" of law and social norms are tapped, Merton's original sense that anomie is the discrepancy between the goal and the means and that anomie is the product of utilitarian behavior is not obvious.

Cao (2004) offered another index of anomie based on data from the *World Value Surveys*. This is a six-item index of acceptance of the legitimacy of instrumental criminal/deviant scenarios. The six scenarios include profit-motivated behavior regarding claiming government benefits, avoiding a fare on public trans-

Table 1: Differences and Convergences on Anomie between Durkheim and Merton

	Durkheim	Merton
Differences		
Background	French society in its transitional stage from rural to urban society at the turn of the nineteenth century.	The United States in the 1930s and onward; the society is thus relatively stable.
Sources of anomie	The rapid industrialization combined with a less speedy growth of forces that could regulate it.	The institutionalized and culturally promoted social goals in a democratic society, such as the United States
Human nature	Human being's appetite is naturally insatiable.	Human being's appetite is not naturally formed. It is socially induced.
View of anomie	In organic society, anomie is a pathological phenomenon which should be fought against.	Limited anomie is a normal state that is a permanent part of a democratic society.
Convergences		
Definition of anomie	For Durkheim, normlessness, broad, including both utilitarian and nonutilitarian behavior; For Merton, normlessness, narrow and utilitarian, a lack of consensus on norms judged to be legitimate.	
Characteristics	Anomie relates social circumstances to individual psychological states.	
Deviance/ Suicide and anomie*	A state of deregulation is a factor making for departures from established standards. Higher rates of suicide and deviance are to be expected under anomie condition.	
Existence	Anomie is endemic in transitional societies for Durkheim, and it is endemic in democratic societies for Merton.	

*see Passas (1995)

port, cheating on tax, buying stolen goods, accepting bribe and failing to report property damage. This index emphasizes the normlessness dimension of anomie and better represents Merton's original conceptualization in three ways. First, the measure reflects Merton's point that a lack of consensus on norms judged to be legitimate is anomie, and it captures Merton's argument that anomie is the extent of delegitimation regarding "particular" or "specific" norms resulting from the rules and legal codes of a society. Second, the index covers a range of instrumental crimes ranging from white-collar to street crimes. Third, the index is consistent with Merton's (1938:675) belief that the rules are known to the rule violators, but "the emotional supports of these rules are largely vitiated by cultural exaggeration of the success-goal." It captures the extent of the individual's readiness to disregard the rules or to use the technically most efficient and available means for monetary success. One limitation of this measure is that it focuses on hypothetical rule breaking or cheating.

The current study intends to explore this definition of anomie among individuals across the world. We argue that anomie itself needs explanation. This idea is not entirely new. Menard (1995) used his measure of anomie as an intervening variable in his study. Sampson and Bartusch (1998) conducted the best study of anomie (legal cynicism) using Chicago neighborhoods data with multilevel analysis. Cao (2004) treated anomie as the dependent variable in his cross-national study. Other scholars (Baumer 2007; Martin 2000; Thorlindsson and Bernburg 2004) argue that full understanding of anomie must come from the multiple levels. In this study, we intend to extend Sampson and Bartusch's (1998) effort and examine anomie and its determinants with cross-national data. We are particularly interested in the social structural effect, such as rapid social changes, on anomie. Stack, Cao and Adamczyk (2007) argue that international research has the advantage of testing the generalizability of theories developed in one society.

Previous cross-national studies (Form 1975; Cao 2004) focus primarily on individual and demographic attributes rather than situating anomie in a larger structural context. Form's study examines the workers' anomie in four nations with cross-tabular tables. Cao's (2004) regression analysis finds that older, female, the employed, and the married have less anomie than younger, male, the unemployed and the unmarried. With the exception of gender, Cao proposes that these characteristics represent the social and economic position of an individual in a society. This interpretation is consistent with Agnew's (1997) finding that individuals with a lower level of social integration are more likely to experience feelings of normlessness and meaninglessness. For gender differentiation, studies have found that females have stronger bonds to their families and social institutions, and these attachments lead to lower rates of female offending (Jensen and Eve 1976; Paternoster 1989), and by extension, lower levels of anomie. Other studies have found similar effects of age, gender, employment and marriage (Sampson and Bartusch 1998). Building on this literature, the current study tests these effects again.

In addition, we include a few new variables in our model. They are family saving, subjective social class and confidence in authority. Family saving and social class are two different aspects of socio-economic status of individuals in a society. Confidence in authority captures the public's general attitudes toward the legitimacy as well as the effectiveness of a regime (Cao and Hou 2001). From different dimensions, these variables all tap various aspects of socio-economic status of an individual in a society. It is expected that those with social and political powers are less likely to have higher levels of anomie.

In the study of anomie, Sampson and Bartusch (1998) and Thorlindsson and Bernburg (2004) examine both individual and contextual effects on anomie within a single society. The unit of analysis for Sampson and Bartusch is neighborhood in Chicago and for Thorlindsson and Bernburg is school district in Iceland. Both have found significant effects of the structural variables on anomie. Thorlindsson and Bernburg (2004) find that community political integration influences anomie of juveniles while Sampson and Bartusch (1998) show structural effects of concentrated disadvantage on legal cynicism – their measure of anomie. Sampson and Bartusch's (1998) research results support Merton's argument that anomie is related to social stratification in the United States. Their model, however, has not been extended to include cross-national data.

Rapid Sociopolitical Change

In this article, rapid sociopolitical change is captured by the variable called nations of Eastern Europe under democratic transition. We understand that there are other nations that also changed into democratic regimes during the third wave of democratization (Huntington 1991), such as the Philippines, Brazil and Chile, but these nations are different from the nations in Eastern Europe. We are particularly interested in the unique experiences of democratization of Eastern Europe for several reasons. First, Eastern Europe is a product of the Cold War (Fukuyama 1992). Many nations did not choose to be communist states, but were forced to be Soviet satellite states or Soviet states within the Soviet Union. Given that the West had won the economic and ideological war over the forces of communism, it is interesting to see the effect of change in these societies. Second, these societies had been under the communist regimes for almost half a century (Bunce 1995). In contrast, many societies in Latin America, such as Brazil and Chile, have a history of alternation between authoritarian and democratic rules. Third, these communist states developed a far more penetrative party system than autocratic regimes based on individual charisma in Asia and Latin America. Fourth, Eastern European societies are industrialized, and their general educational level is significantly higher than those in Lain American societies. Fifth, there is an absence of military intervention in the Eastern European history. Sixth, the course of history changed in these societies between 1989 and 1991 in a short period of time, and social stratification systems all increased to a different degree (see Appendix).

These conditions make Eastern Europe preferable to study as a group or block than nations elsewhere. We follow the practice of the comparative literature and treat these nations as a group (Bozoki 2003; Duch 1995; Hanley 2003; King and Sznajder 2006), fully aware of many economic, historical, linguistic, political and social differences among them (see Walder 2003 for a detailed discussion of these differences and their consequences).

In addition to the rapid sociopolitical change, we measure inequality. To different degrees, all nations under transition have experienced enlarged inequality (see Appendix). As mentioned, Merton (1938) and many others (Blau and Blau 1982; Messner 1989; Sampson and Bartusch 1998) argue that greater economic inequalities foster conflict and spawn anomie.

The Research Hypotheses

Based on the theoretical deduction of anomie theory and the previous studies, the current research attempts to test three sets of hypotheses. These research hypotheses include variables at both individual and national levels.

First, at the individual level, we hypothesize that anomie is inversely related to the social and economic position of the individual in a society. Respondents who are older, married, employed, better educated, from the middle or upper class, and have more family savings and more confidence in authority will experience a lower level of anomie than those who are younger, single, unemployed, less well-educated, from the lower class, have less family savings and less confidence in authority. Females have a lower level of anomie than males.

Second, at the national level, individuals who live in nations under democratic transition will experience a higher level of anomie than those who live in nations with relatively stable social conditions.

Third, at the national level, individuals who live in nations with greater economic inequality will have a higher level of anomie than those living in societies with smaller levels of economic inequality.

Methods

The Sample

The data for the current analyses are from two sources. Data for all individual-level variables are from the 1995 *World Values Survey*. Data for the Gini index for each nation in 1995 or closest to 1995 are taken from the United Nations University's *World Income Inequality Database* or WIID (United Nations University 2005).

The individual-level data source, *World Values Survey*, has been utilized in numerous publications in more than 20 languages (*World Values Survey Organization* 2006). The survey is designed to facilitate cross-national and cross-cultural comparisons of a wide range of basic values and beliefs about the

public, political and social life across the globe. Each national questionnaire is a translation from a standard questionnaire, which is in English. The questionnaires are administered to about 1,000 to 3,500 adult interviewees face-to-face. The samples are selected as close as possible following the random sampling methods. The current study used the 1995 dataset, which was designed to give special attention to obtaining better coverage of non-Western societies (*World Values Survey Organization* 2006).

After reviewing the dataset for missing values of the dependent and independent variables, 30 out of 53 nations/regions are selected for further analysis (see Table 2). Although the selection is not random, all continents except Africa are represented: four nations are from Asia, 16 from Europe, three from North America, six from South America, and one from Oceania (see Table 2). The missing values for all the independent variables are less than 4 percent with the exception of the variable "social class," which has the missing data up to 13.5 percent for Sweden.[1] The missing data are excluded from the analysis. The final analyses contain 38,845 cases from 30 nations, with each country ranging from 417 cases (Dominican Republic) to 2,092 cases (Belarus).

The Dependent Variable

The dependent variable, anomie, is measured as an index of the individual's acceptance of the legitimacy of five instrumental crime-related scenarios. Respondents in each nation are asked to answer the questions as follows: Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between: a) claiming government benefits which you are not entitled to; b) avoiding a fare on public transport; c) cheating on tax if you have the chance; d) buying something you knew was stolen; e) someone accepting a bribe in the course of their duties. The responses range from 1 (never justifiable) to 10 (always justifiable). The index of anomie is calculated as the sum of the scores of these five items minus 4 so that it ranges from 1 to 46. A higher score indicates a higher level of anomie. The reliability alpha equals to .75. The missing data for these items range from 1.9 percent (buy stolen goods) to 4.0 percent (claim benefits). They are excluded from the analyses. The index's skewness and kurtosis are both less than 2.2. A Q-Q plot does not show a serious skewness of the anomie index either.

This measure is first labeled as anomie by Cao (2004), but its variations are called "materially self-interested attitudes" by Halpern (2001), using four items (c, d, e, and "lying in your own interest"), and "attachment to the law" by Jensen (2002), using the six-item index ("keeping money you have found," "lying in your own interest," a, b, c and d). Cao's index has one more item that is not in the current index: failing to report damage you've done accidentally to a parked vehicle. For lack of data in many nations, we had to drop this item.

The Independent Variables

The independent variables are grouped into two levels: individual and national levels. The eight variables at the individual level are gender, age, marital status, family savings, employment status, education, self-defined social class and confidence in authority. Gender is a dummy variable where female = 0 and male = 1. Age is coded into six groups, from the youngest group (1 = 18-24) to the oldest group (6 = older than 64). Marital status is coded with values of 1 for respondents who are married including living together and widowed, and 0 for otherwise (single, separated, and divorced). Family savings in the past year is an ordinal variable with four groups: one representing "spent savings and borrowed money" and four representing "saved money." Employment status becomes two dummy variables: employment 1, where the employed is coded as 1, and employment 2, where students and housewives are coded as 1, and others as 0 (the reference group). Education is coded into five categories with one representing "no formal education" and five representing "university-level education." Self-defined social class asks people to rank themselves from 1 = lower class, 2 = working class, 3 = lower-middle class, 4 = upper-middle class, to 5 = upper class. Finally, confidence in authority is an index consisting of three items: confidence in the legal system, in the police, and in the government. The responses to these items range from 1 (not at all) to 4 (a great deal). We add the responses of these three items and divide the final results by 3 to return to the original scale. The reliability alpha is .70. These variables, to a different extent, tap the current social and economic position of an individual in a society. It is expected that those with a higher position in a society will have a lower level of anomie.

At the national level, there are two variables. They are nations of Eastern Europe in democratic transition, and the Gini index. Nations in transition is a binary variable with 1 representing nations in Eastern Europe and 0 representing all other nations in the sample. In the present study, 13 out of 30 nations are from Eastern Europe (see Table 2).

The Gini index is a measure of economic inequality in a nation. It ranges from 0 to 100 with 0 representing perfect equality and 100 representing extreme or perfect inequality. There are no missing values at the national level. The hierarchical linear modeling technique was used for the current study.[2]

Procedures in Conducting the HLM Analysis

This study utilizes HLM 6 software to estimate the parameters for anomie. We ran four models. First, Model 1 is the base model with only the dependent variable, anomie (also known as "one-way ANOVA with random effects" model, see Raudenbush and Bryk 2002). This model is created to obtain the intra-class correlation coefficient, which measures the proportion of variance in the dependent variable that is counted for by level-2 units. The ICC, as obtained from Model

1, is .1038. Therefore, nation characteristics (the level-2 units) account for 10.38 percent of the variability in anomie among individuals, which suggests that a multilevel model incorporating nation and national characteristics is useful. The reliability estimate, which is close to 1, indicates that the sample mean is a reliable measure of the true nation mean for anomie.

Next, Model 2 with all variables at the individual level is created. This level-1 model shows that anomie is the function of individual level explanatory variables. In order to make the elaboration of the results easier, all the interval level independent variables are centered[3] on their grand means[4] while the binary independent variables are not centered.[5]

Then, in Model 3 individual and national level variables are included simultaneously in a single multivariate model. Combining both the level-1 and level-2 equations produces a composite model:

$$
\begin{aligned}
Anomie_{ij} = {} & \gamma_{00} + \gamma_{01}\,(Nation)_j + \gamma_{02}\,(Gini)_j + \gamma_{10}(Gender)_{ij} + \gamma_{20}(Age)_{ij} + \\
& \gamma_{30}(Marital\ Status)_{ij} + \gamma_{40}(Family\ Savings)_{ij} + \gamma_{50}(Employment \\
& Status)_{ij} + \gamma_{60}(Education)_{ij} + \gamma_{70}(Social\ Class)_{ij} + \gamma_{80}(Confidence\ in \\
& Authority)_{ij} + u_{0j} + r_{ij}
\end{aligned}
$$

This composite model shows which part of the model is composed of fixed effects (the γs) and which part is composed of random effects (u and r) (Luke, 2004). Overall, the model tests not only whether the individual level variables have an effect on the anomie levels in individuals, but also whether the national level variables influence individuals' anomie.

Finally, we ran additional analyses to explore the cross-level effects of the individual and national level variables on anomie. Model 4 is created for this purpose.

Results

The mean level of anomie for each nation in the sample is presented in Table 2. The results show that a certain level of anomie existed in every one of the 30 nations, which is in line with Merton's statement regarding the prevalence of anomie in modern societies. The grand mean of the anomie scores is 7.59. Among the 30 nations, Croatia has the highest mean of anomie (12.29), followed by Philippines (11.80) and Brazil (11.21). Nations which have the lowest anomie levels are Uruguay (4.64), India (4.01), and the United States (3.77). Ten out of 13 nations with an anomie score higher than the average (7.59) are the nations under democratic transition.

The parameter estimates and the R squares for each model are reported in Table 3. Instead of interpreting the R square as a simple percentage of variance accounted for, HLM interprets the R square as the proportional reduction of prediction error (Luke 2004). There are four models in Table 3. Compared with Model 1, Model 2 diminishes prediction error in anomie by 6.22 percent at the individual

Table 2: The Mean Levels of Anomie among 30 Nations in 1995

Nation/Region	Continent	Anomie Level	Number of Cases
1. Armenia*	Asia	11.19	2000
2. Azerbaijan*	Asia	9.67	2002
3. India	Asia	4.01	2040
4. Philippines	Asia	11.80	1200
5. Belarus*	Europe	10.23	2092
6. Bosnia Herzegovina*	Europe	5.51	1200
7. Bulgaria*	Europe	6.08	1072
8. Croatia*	Europe	12.29	1196
9. Estonia*	Europe	7.52	1021
10. Finland	Europe	6.06	987
11. Latvia*	Europe	10.71	1200
12. Lithuania*	Europe	8.29	1009
13. Macedonia*	Europe	6.91	995
14. Moldova*	Europe	10.85	984
15. Norway	Europe	4.98	1127
16. Russia*	Europe/Asia	8.46	2040
17. Slovenia*	Europe	8.79	1007
18. Spain	Europe	4.76	1211
19. Sweden	Europe	7.06	1009
20. Switzerland	Europe	6.47	1212
21. Mexico	North America	10.13	1510
22. Puerto Rico	North America	4.99	1164
23. USA	North America	3.77	1542
24. Australia	Oceania	4.78	2048
25. Brazil	South America	11.21	1149
26. Chile	South America	7.52	1000
27. Dominican Republic	South America	5.55	417
28. Peru	South America	7.74	1211
29. Uruguay	South America	4.64	1000
30. Venezuela	South America	5.73	1200
		Mean = 7.59	Total = 38,845

*Nations of Eastern Europe in democratic transition

level and 10.63 percent at the national level. Model 3, which incorporates two national level variables, reduces prediction error in anomie by 6.22 percent at the individual level and 37.74 percent at the national level. Model 4, the best fitting model incorporating cross-level effect, decreases prediction error by 6.36 percent at the individual level and 39.6 percent at the national level. Although the increase in the proportional reduction of prediction error at both levels may look small in number compared to that in Model 3, the hypothesis testing of the deviances for the model fit confirms that Model 4 is significantly better in explaining anomie among individuals (χ^2 = 50.836, df = 1, p < .001).

Specifically, Model 2 in Table 3 suggests that six out of eight individual-level variables are significant predictors of anomie. With all the other variables in the model being held constant at zero, an individual is expected to have an anomie score of 8.176. Males tend to be more anomic than females (γ = 1.027, t = 8.098,

Table 3: Hierarchical Linear Model of Anomie: Coefficients and Variance Decomposition

Parameter	Model 1	Model 2		Model 3		Model 4	
Intercept	7.592**	8.176**		6.920**		7.877**	
Individual Level							
Gender (1 = male)		1.027	(.065)**	1.028	(.065)**	1.019	(.069)**
Age		-.773	(-.158)**	-.773	(-.158)**	-.769	(-.157)**
Marital status (1 = married)		-1.106	(-.063)**	-1.108	(-.063)**	-1.116	(-.063)**
Family savings		-.320	(-.036)**	-.318	(-.036)**	-.314	(-.036)**
Employment 1 (1 = employed)		-.484	(-.028)*	-.482	(-.028)*	-.478	(-.028)*
Employment 2 (1 = students & housewives)		-.021	(-.001)	-.016	(-.001)	-.023	(-.001)
Education		-.154	(-.022)	-.155	(-.022)	-.158	(-.023)
Subjective social class		.192	(.022)	.193	(.022)	.194	(.022)
Confidence in authority		-.798	(-.071)**	-.796	(-.071)**	-.404	(-.036)*
National Level							
Nations under transition				2.900	(.567)**	5.014	(.980)**
Gini index				.047	(.210)	.051	(.228)
Cross-level interactions							
Confidence in authority by nation under transition						-.865	(-.169)*
Residual Variance							
Individual within nations	56.474	52.963		52.963		52.883	
Nation means	6.539	5.844		4.071		3.951	
Intraclass Correlation Coefficient	.1038						
Proportional Reduction of Prediction Error (R^2)							
Individual within nations		.0622		.0622		.0636	
Nation means		.1063		.3774		.3958	

*p ≤ .05   **p ≤ .01 R^2s in HLM are called Proportional Reduction of Prediction Error and they are calculated in comparison with Model 1, "the fully unconditioned model," at both levels.

Note: Numbers in the parentheses are the standardized coefficients. The standardized coefficient at national level is equal to the unstandardized coefficient multiplied by standard deviation of nation means on the explanatory variable and then divided by the standard deviation of group means on the dependent variable. The standard deviation for the dependent variable equals to the square root of the variance component for group means from the null HLM model (Model 1). See Osgood and Anderson (2004) for a detailed discussion.

p < .01); older people are less anomic than younger people (γ = -.773, t = -11.12, p < .01); and the married have a lower anomie score than the unmarried (γ = -1.106, t = -8.216, p < .01). In addition, the employed show a lower level of anomie than the others (γ = -.484, t = -2.192, p < .05); the more savings a family has, the less anomic an individual is (γ = -.32, t = -3.247, p < .01). Finally, the more confidence an individual has in the authority (legal system, police and government), the less anomic s/he is (γ = -.798, t = -3.615, p < .01). The other two variables, education and subjective social class, are not significant predictors of anomie. The standardized coefficients in the parentheses show that, at the individual level, age has the strongest effect (-.158) on an individual's level of anomie, followed by the confidence in authority (-.071), gender (.065), marital status (-.063), family savings (-.036), and employment status (-.028). Overall, the evidence for research hypothesis 1 regarding the effects of socioeconomic positions on anomie in individuals is mixed, largely consistent with the theory expectation (gender, age, marital status, family savings, employment 1, and confidence in authority), but with two exceptions (education and subjective social class).

At the national level, the results presented in Model 3 indicate that the grand mean of anomie becomes 6.920, which is lower in comparison with the mean of anomie in Model 1 and Model 2. The effects of all the individual-level variables remain the same as they are in Model 2. The level-2 variable, nations under transition, is statistically significant at the .01 level. The results confirm that individuals who live in Eastern European nations, which have undergone democratic transition, experience a higher level of anomie than those who live elsewhere (γ = 2.900, t = 4.422, p < .001). The Gini index, however, is not significantly related to anomie. The standardized coefficients show that among all the predictor variables, nation under transition has the strongest effect (.567) on anomie. Overall, the results of Model 3 suggest that the incorporation of the national-level variables in predicting anomie in individuals is necessary and all the effects of the significant variables at both levels are in the predicted direction.

Model 4 was created to explore the cross-level effects on anomie in individuals. Before creating Model 4, nations under transition was added to influence the slope of each of the significant predictor variables at the individual level respectively to explore any cross-level interaction effect on anomie. The analyses show that only nations under transition at the national level and confidence in authority at the individual level have a significant cross-level interaction effect on anomie.[6]

The results of Model 4 show that by including the cross-level interaction effect, the strength of the significant effect of nations under transition increases from .567 in Model 3 to .980 in Model 4; the effect of confidence in authority at the individual level, however, becomes smaller (from -.071 to -.036). Although the strength of this effect declines by almost 50 percent (.036/.071), its direction remains the same: the more confidence an individual has in authority, the lower level of anomie s/he experiences (γ = -.404, t = -2.309, p < .05). This effect, furthermore, is stronger for

Figure 1: Predicted Anomie Level, by Confidence in Authority and Nation in Transition
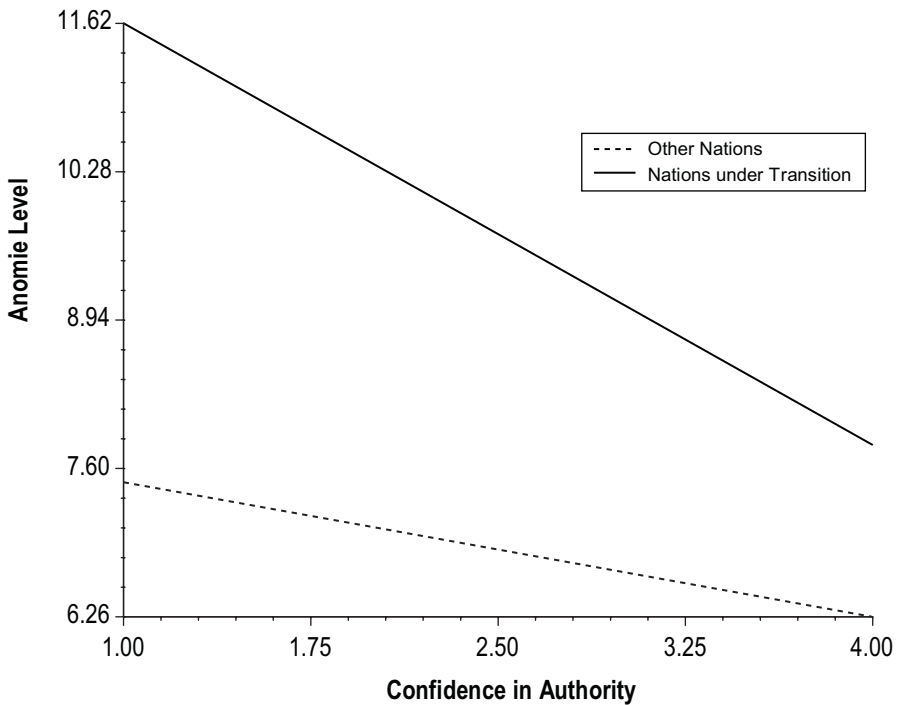
Note: Numbers in both axes are actual values; predictors not in the figure are held constant at zero.

individuals who live in the nations under democratic transition (see Figure 1 for the cross-level interaction effect: the slope is "steeper" for nations under transition). That is to say, as the levels of individuals' confidence in authority increase, the levels of anomie drop faster for individuals who live in nations under democratic transition than those who live elsewhere and do not experience this sociopolitical change.

Discussion

The current study tests the linkage between rapid sociopolitical change and anomie. As predicted by Durkheim's theory of social transition, anomie as a byproduct of rapid social change increases also during the democratic transition in Eastern Europe. Our models explain a reasonably large amount of the variance of anomie in systematic ways. The results suggest that rapid social change – measured as nations in transition from authoritarian regimes to democracies – elevates the level of anomie among individuals in these nations.

The high level of anomie found in nations of Eastern Europe in transition should not be a surprise. Sung (2003, 2004) examines the relationship between democracy and political corruption, but with similar implications. He finds that the relationship is curvilinear: political corruption increases in the intermediate democracies, but eventually declines in the advanced democracies. With consolidation of democracy in Eastern Europe, we expect that the high level of anomie observed in 1995 may decrease in the next decade or so when the new civil society builds up its roots and replaces the old repressive mechanisms of social integration and social regulation.

Most contemporary scholars agree that liberal democracy is a desired goal. Liberal democracy is defined in this article as the political system that allows political liberties and democratic rule (Bollen 1993; Fukuyama 1992; Huntington 1991; Lipset 1981). With the adoption of democratic constitutions and competitive elections, the process of early democratic transition from totalitarian rule had come to an end by the mid 1990s. While the formal structures of liberal democracy are in place, the durability of the newly established structure remains uncertain. According to these scholars, liberal democracies promote social justice by increasing rationality, mutual trust and self-control. Therefore, individuals in these societies are embedded in increasingly complex social configurations such that advancing their self-interest less often requires the use of unusual means, such as violence or crime. Theoretically, we would expect the decline of anomie in the future. However, we would not expect the disappearance of anomie because it is endemic in an organic society according to Durkheim and in a democratic society according to Merton.

The analysis used in the current study expands our understanding of anomie at both the individual and national levels. The present study extends Durkheim's theory of transitional societies to the nations under democratic transition. Results show that individuals who live in Eastern European nations undergoing democratic transition have a higher level of anomie. The cross-level examination confirms that nations in transition not only have a direct effect on the intercept of the dependent variable, anomie, but also an interactive effect through the level-1 variable, confidence in authority. That is, the linear lines of confidence in authority on anomie show different degrees of drops in the level of anomie: when confidence in authority increases, the level of anomie drops faster in nations under transition than in those which do not experience rapid social change. Thus, Durkheim's argument about the effect of rapid social change on anomie is empirically supported by the contemporary data from nations under *democratic* transition. In addition, the insignificant effect of Gini index on anomie seems to be consistent with Durkheim's arguments that inequality is a natural and inevitable human condition, and that is is not associated with social maladies such as crime (Vold, Bernard and Snipes 2002), and by extension, anomie.

The descriptive analysis of the current study shows that anomie exists in every one of the 30 nations, and the mean individual level of anomie differs from nation to nation. Merton's proposition that different societies have different levels of so-

cially induced anomie has been empirically verified. Contrary to Merton, however, the level of anomie is not especially high for the United States and inequality is not related to anomie in these societies. We cannot say that Merton's argument was incorrect. Time is one of the ultimate constraints on all theories (Kuhn 1970). While the United States was one of the few democracies in the late 1930s when Merton published his essay, the third wave of democratization since the late 1970s has created new speculative spaces and a universal merchant mindset. Using the most efficient means to achieve the desired economic success is no longer limited to the United States. Merton (1938) suggests that anomie is a typical adaptive behavior in democratic societies in general. The American dream has, through the spread of the democratic system, become a universal dream (Cao 2004). In addition, Merton's theory was advanced to describe anomie in societies with more stable cultural and social structures. Therefore, a more precise test of Merton's theory should rely on data from nations with relatively stable economic and political systems.

At the individual level, the results show that the effects of the socioeconomic variables are consistent with previous findings in the literature (Cao 2004; Jensen 2002; Paternoster 1989; Sampson and Bartusch 1998): males, the young, the unmarried and the unemployed are found to be more anomic than females, the older, the married and the employed. It should be noted that the measures of anomie in these various studies all differ slightly from one to another. The similar findings are reassuring that our measure of anomie is valid. In addition, the more family savings an individual has the less anomic he or she is, and the more confidence an individual has in authority (the police, the legal system and the government), the less anomic he or she is. These results largely support Merton's argument that anomie is inversely related to an individual's social and economic position in a society.

The present study has several limitations. First, our operationalization of anomie is narrow, closer to Merton's definition of the delegitimation of social norms with an emphasis on the goals-means discrepancy than to that of Durkheim's broad conceptualization. Second, although the *World Values Survey* is well designed for cross-national comparisons it is not particularly designed for the current study. Like many cross-national studies, the *World Values Survey* data have their intrinsic limitation – the missing values. Consequently, fewer than 60 percent of the nations (30 out of 57) in the survey were chosen for the current analysis. Future studies need to rely on better comparative data that allow more nations in the analysis. Third, our measure of social change is captured by one categorical variable and it may be too simplistic. The concept of change can be captured as the continuous variable of the degree of more or less transition and the transition to more or less democracy. Also cross-sectional design limits our ability to measure change.

Despite these limitations, the present study is the first to examine the linkage of rapid social change and anomie cross-nationally using the hierarchical linear modeling. The findings highlight the importance of using the multi-level data to explore the sources of anomie among individuals. They extend Durkheim's theory

to explain anomie in the nations undergoing rapid sociopolitical change. It also lends support to Merton's contention that a certain level of anomie is normal in democratic societies.

Notes

1. The subjective social class has the most missing values in Sweden (13.4%). We replace the missing values with the sample mean for Sweden. To make sure that this does not affect the results, we recode the non-missing values for "subjective social class" in Sweden, as "1" and the missing values as "0," and run a regression analysis with this variable. The new variable is not significantly related to anomie, meaning that there is no difference between those who do not answer an item and those who answer.

2. To test whether a HLM analysis is needed for the current study, we ran a regression with anomie as the dependent variable and all the individual-level variables as independent variables. A one-way ANOVA was conducted using the unstandardized residual obtained from the regression analysis as the dependent variable and nation as the factor. The ANOVA result shows that the model violates the OLS independence assumption that the errors should be independent from each other ($F = 127.45$, $df_{between} = 29$, $df_{within} = 33095$, $p < .01$). Therefore, a hierarchical analysis is more appropriate than an OLS regression for solving the problem of correlated errors.

3. There are two main advantages of centering the predictors (Kreft and Leeuw 1998): (1. obtaining estimates of β_{0j} and other effects that are easier to interpret; (2. removing high correlations between the random intercept and slopes, and high correlations between first- and second-level variables and cross-level interactions.

4. The grand-mean centering is interpreted as a deviation away from the grand mean. In the present study, the grand-mean centering instead of group-mean centering is used mainly because there are no strong theoretical reasons to do the group-mean centering (Luke 2004).

5. The coefficient for binary or dummy variables is interpreted as the difference in the dependent variable between the group coded as 1 and the group coded as 0.

6. The model is what Raudenbush and Bryk (2002) called as an "intercepts- and slopes-as-outcomes" model. The equations for Model 4 can be written as:

$$Anomie_{ij} = \beta_{0j} + \beta_{1j}(Gender)_{ij} + \beta_{2j}(Age)_{ij} + \beta_{3j}(Marital\ Status)_{ij} + \beta_{4j}(Family\ Savings)_{ij} + \beta_{5j}(Employment\ Status)_{ij} + \beta_{6j}(Education)_{ij} + \beta_{7j}(Social\ Class)_{ij} + \beta_{8j}(Confidence\ in\ Authority)_{ij}$$

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(Nation)_j + \gamma_{02}(Gini)_j + u_{0j}$$
$$\beta_{1j} = \gamma_{10}$$
$$\beta_{2j} = \gamma_{20}$$
......
$$\beta_{8j} = \gamma_{80} + \gamma_{81}(Nation)_j$$

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Appendix: Gini Index for Nations of Eastern Europe in Democratic Transition

Nation/Region	1985	1995
Armenia	26.9 (1986)	38.1
Azerbaijan	26.6 (1986)	45.9
Belarus	25.4 (1986)	28.3
Bosnia Herzegovina	—	32.9 (1991)
Bulgaria	27.9	36.8
Croatia	21.1 (1987)	26.5 (1993)
Estonia	26.7 (1986)	35.3
Latvia	25.2 (1986)	28.5
Lithuania	23.7	33.3
Macedonia	32.2 (1989)	35.9
Moldova	24.8 (1986)	39.0
Russia	26.1 (1986)	43.2
Slovenia	23.5 (1987)	35.8

Data source: *World Income Inequality Database*, United Nations University, 2005

Note: The Gini index is based on gross, net and taxable incomes; earnings and expenditure; main income recipient units; rural and urban data. The Gini index data in this appendix are collected from the WIID following the same income definitions (e.g., gross) and reference units (e.g., persons) for Gini index as much as possible. Because not all Gini indexes follow the same income definitions and reference units, the data still need to be interpreted with caution.