Collectivism and Governmentally Initiated Restrictions: A Cross-Sectional and Longitudinal Analysis Across Nations and Within a Nation

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Abstract

The present paper provides evidence for a link between cultural collectivism and indexes of governmentally initiated restriction both across nations and within one nation, both cross-sectionally and longitudinally. In Investigation 1, across U.S. states an index of legislative restriction was positively related to an index of collective behaviors. In Investigation 2, across nations an index of political restriction was positively related to measures of national cultural collectivism. In Investigation 3, longitudinal analyses suggested that cultural measures predict restriction better than vice versa, although this evidence was stronger and more consistent across nations than across states. The present findings are discussed in terms of their contribution to understanding the relationship between culture and politics.
Collectivism and Governmentally Initiated Restrictions: A Cross-Sectional and Longitudinal Analysis Across Nations and Within a Nation

The only part of the conduct of anyone for which he is amenable to society is that which concerns others. In the part which merely concerns himself, his independence is, of right, absolute. Over himself, over his own body and mind, the individual is sovereign.

John Stuart Mill (p. 132)

Neither must we suppose that any one of the citizens belongs to himself, for all belong to the state, and are each of them a part of the state, and the care of each part is inseparable from the care of the whole.

Aristotle (p. 319)

Aristotle and Mill present two strikingly different visions of the individual’s relation to the state and thereby illustrate the potential tension between individual freedom and prescriptive societal power. Aristotle’s answer to this dilemma places ultimate importance on the state. People, he argues, do not belong to themselves. As individual parts of the human body are dependent upon and thus (in a sense) belong to the other parts, so too individual humans depend upon the whole of society. On the contrary, Mill’s answer places ultimate importance on the individual. People, he counters, belong to themselves, and themselves alone.

The purpose of the present paper is not to solve this ancient dilemma. Rather, the current aim is to provide a theoretical and empirical rationale arguing that expressions of these two political philosophies are linked to a construct that has dominated at least a decade of social psychological research on the study of cross-cultural differences: Individualism/Collectivism. In particular, this analysis explores the relation between cultural
collectivism and indexes of governmentally initiated restriction.

Admittedly, though collectivism has been one of the dominant constructs in cross-cultural psychology, defining collectivism can be a contentious task. Triandis (1996) has tried to clarify the meaning of collectivism/individualism, but rather than giving a simply unitary definition, he portrayed individualism and collectivism as syndromes of constructs which tend to co-occur. In medicine, syndromes are defined by sets of symptoms that tend to occur together, even though the reason for their co-occurrence may not always be understood. The collectivist syndrome includes the following symptoms: defining the self as interdependent, giving precedence to in-group goals, expecting norms rather than attitudes to guide behavior, and engaging in communal rather than exchange relationships. Individualism is defined by the opposite set of symptoms. Triandis’ discussion, of course, includes much more subtlety than this brief summary allows, but for the current discussion, the expectations for norm guided behavior within collectivism and attitude guided behavior in individualism are particularly relevant.

Triandis’ (1995) argument that collectivists expect norms rather than attitudes to guide behavior suggests that this psychological construct may manifest itself in legislative decisions. Regions in which legislators are predominantly collectivist may at least somewhat more frequently to view legislation as an acceptable form of normative influence on behavior. Likewise, collectivists may tend to be at least somewhat more ready to accept restrictive legislation as an acceptable expression of norms guiding behavior. Individualistic legislators may tend to be less willing to impose restrictive legislation due to fundamental beliefs that to the extent possible, attitudes should guide behavior. Triandis is by no means alone in discussing the acceptance of prescriptive norms as an element in collectivism.

Others have also suggested that collectivism, or at least particular streams of collectivism, may create particular expectations individuals to be guided by norms. Kagitzcibasi
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(1997) in her extensive review of the Individualism and Collectivism constructs, distinguished “normative individualism/collectivism” from relational collectivism. In normative collectivism, “individual interests are to be subordinated to group interests” such that individuals follow group norms and expectations (Kagitcibasi, 1997, p. 34). This distinction is also echoed in discussions of vertical collectivism. Vertical collectivism emphasizes a hierarchical structure in which the power is unevenly distributed amongst the levels of the hierarchy (see Triandis, Chen, & Chan, 1998; similar distinctions between cultural constructs have been made by other researchers, e.g., Hofstede, 1980; Smith, Dugans, & Trompenaars, 1996). Those in positions of status are given greater authority over the behavior of others and those not in positions of authority are expected to follow the prescriptions of the group. In contrast, horizontal collectivism involves identification with groups where all members are viewed as equals. Thus, this thesis of a relation between collectivism, or at least a particular type of collectivism, and the acceptance of prescriptive norms for behavior (as opposed to the belief that personal attitudes should guide behavior) rests on a large body of prior examination of this issue. One could also argue, however, that horizontal collectivism and Kagitsibaci’s (1997) related construct of relational collectivism may also promote governmentally initiated restrictions. These constructs represent identification with groups of equal power peers. This form of identification may promote group rights even at the expense of individual rights. Thus, relational and horizontal collectivism may likewise be associated with restrictions on individual behavior for the sake of group well-being.

The Relationship Between Political and Cultural Structures

Though cross-cultural psychology and political psychology both seem to be growing areas and there has been recognition that the two areas can inform each other (e.g., Hudson & Sampson, 1999), little empirical research, to our knowledge, has been conducted that links the two areas. Given the potential theoretical overlap between cultural collectivism and
governmentally initiated restriction, it is worth trying to bridge the conceptual and empirical gap that currently exists cultural research and political psychology, but let’s first step back and look at the relationship between politics and culture in general.

**The Definition of Culture.** It is by no means an easy task to pinpoint a scientifically useful definition of “culture.” At the broadest psychological level, a culture is a group that shares some aspect of psychology that is not shared (or is notably less shared) by other groups; the shared elements can include shared symbols and meanings (Geertz, 1973; cited in Ross, 1997), shared values (Schwartz & Bardi, 1997), and shared personality traits (Church, 2000). Thus, culture involves the unique sharing of some psychological attribute (see Schaller, Conway, & Crandall, in press).

Of course, perfect consensus almost never exists within a group on any given attribute (see Conway & Schaller, 1998), and thus what one considers a “culture” will still depend in part on fuzzy and arbitrary lines (Hermans & Kempen, 1998; Tweed, Conway, & Ryder, 1999). Oftentimes, a culture is operationalized by largely artificial boundaries, such as those of a geopolitical unit. Although such operations have their problems, years of cross-cultural research attest that different geopolitical regions do, on average, differ from each other on various psychological and behavioral traits (e.g., Smith, Dugans, & Trompenaars, 1996). Thus the present work will use nations (Investigation 1) and U.S. states (Investigation 1) as rough approximations of “cultures,” with the full acknowledgement that such operations, though meaningful, involve somewhat arbitrary boundaries.

**The Shared Nature of Political Systems.** Interestingly, there is one aspect of life that all members within a given geopolitical unit generally do share to a very large extent: Namely, the political and legal structure. There may be wide variation as to individual’s attitudes toward and identification with particular laws within a culture; however, there is frequently little variation as to whether or not all people within that culture ostensibly live under the same laws. People may
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or may not like the laws; they may or may not obey the laws; but they all must to some degree live with them, whether or not they have a negative or positive impact on their own personal life. Now, from the point of view of cultural psychology, this provides a potentially useful piece of information: The political and legal systems within a given nation or state, unlike many other aspects of culture, are very widely shared in some general sense.

Thus, a potentially useful question is this: Is there a relationship between these political systems and the shared cultural psychology that exists within a state? Because all cultures at some level must deal with the tension between individual rights and the social welfare, analyses of cultures’ political systems along the Aristotle-Mill dimension might yield some useful insights into the collective nature of societies.

**Government Influence on Culture or Vice Verse**

Schwartz and Bardi (1997) note that, in spite of the intuitive appeal of the idea that political systems influence cultural beliefs, evidence for this notion is scarce. They then provide some such evidence, demonstrating that Eastern and Western Europe, on the heels of the fall of communism in Eastern Europe, differed in their orientations toward several values related to individualism/collectivism: Eastern Europeans scored higher than Western Europeans on two collectivistic values (conservatism and hierarchy), and Western Europeans scored higher than Eastern Europeans on two individualistic values (affective and intellectual autonomy).

Schwartz and Bardi (1997) argue that because Eastern and Western Europe share a great deal of history prior to the communist revolutions, one can interpret the data as a natural experiment. The emergence of communism in Eastern Europe is considered the “manipulation,” and all other variables are held roughly constant. According to this view, the communistic political system caused the change in Eastern European culture, suggesting that political structures can influence non-political cultural values relevant to collectivism.

This causal path makes intuitive sense at a conceptual level. Communism is clearly a
collectivistic approach to government (Singelis, Triandis, Bhawuk, & Gelfand, 1995). At least to some degree, communism’s actual instantiation in the real political world of Eastern Europe may have differed from some of these collectivistic orientations. However, whether considering communism in theory or in practice, as a political system it seems reasonable that its collectivistic aspects may have caused a change towards more collectivistic cultural values.

Of course, this interpretation assumes that the causal arrow points in only one direction. It is possible instead that greater collectivism preceded and possibly even contributed to the rise of communism in Eastern Europe. Thus, no data yet exists that provides a direct test of the causal relationship between political and cultural structures relevant to collectivism.

Questions Driving the Present Research

With respect to the relationship between political systems and collectivism, some important unanswered questions remain. Three of these questions underscored the present work: (1) First, how generalizable is the relationship between political systems and individualism/collectivism at a cultural level? (It is worth noting that Schwartz and Bardi assumed, but did not directly measure, differences between nations on a political dimension). Will a relationship between political and cultural structures hold across multiple contexts and across multiple measures? (2) Second, does this relationship hold when accounting directly for demographic variables such as economic wealth? Although measures of economic wealth are related to measures of cultural collectivism (Vandello & Cohen, 1999; Hofstede, 1980) and political government (Schwartz & Bardi, 1997), Schwartz and Bardi did not directly control for such indicators’ impact on the relationship between communism and cultural measures. (3) Thirdly, which variable is more causally influential? Do cultural measures predict future political measures or the other way around? In order to help answer these questions, the present research examined data both across states within one nation (Investigation 1), across nations (Investigation 2), and across time (Investigation 3).
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Investigation 1: Collectivism and Governmentally Initiated Restriction Across States within One Nation

Although sometimes considered the poster child for individualistic nations, the United States is far from devoid of collective behavior. Indeed, within its geopolitical borders, the regions of the U.S. have considerable variation in their levels of individualism and collectivism. Vandello and Cohen (1999) took advantage of this variation to create the United States Collectivism Index (USCI), which aggregates various behavioral measures of collectivism within each of the 50 U.S. states. Although one of the measures that comprises the index is political in nature (Libertarian vote), the majority of the components of the index are based on direct measures of affiliative behavior (such as the percentage of persons living alone). Thus, the index is largely (but not entirely) non-political in nature. This state-level index has adequate internal reliability and has demonstrated theoretically meaningful relationships with other variables, including state poverty levels, measures of “urbanness,” rates of suicide and binge drinking, levels of gender and racial inequality, helping behavior, (Vandello & Cohen, 1999) and the pace of life (Conway, Ryder, Tweed, & Sokol, 2001). Further, the USCI correlated positively with self-report survey questions relevant to collectivism. (Interestingly, these surveys also included some questions concerning personal feelings about government intervention. This provides an initial – if indirect -- indication that cultural collectivism may be related to political attitudes within the United States.)

Building on this previous work, the purpose of the present paper is to further extend our understanding of collectivism into the political realm. In particular, investigation 1 examines whether, using an index of legal restriction, there is a relationship between governmentally initiated restriction and cultural collectivism at the state level both with and without controlling for demographic variables. The assumption behind this operation is that highly restrictive state laws indicate putting emphasis on the general welfare of the state over the freedom of the
individual; less restrictive state laws indicate an emphasis on the rights of the individual over the general welfare of the state.

Method

**Cultural Collectivism Measure: The United States Collectivism Index.** Vandello and Cohen’s (1999) U.S. Collectivism index (USCI) is comprised of 8 state-level variables: The percentage of people living alone (reverse-scored), the ratio of people carpooling to work to driving alone, the ratio of divorce to marriages (reverse-scored), the percentage of elderly people living alone (reverse-scored), the percentage of households with grandchildren in them, the percentage of people with no religious affiliation (reverse-scored), the average percentage of Libertarian votes over four presidential elections from 1980-1992 (reverse-scored), and the percentage of self-employed people (reverse-scored).

**Construction of the Legal Restriction Index.** To construct an index of legal restriction, state-level information was gathered from two readily-available sources: Savageau & Loftus’ (1997) widely popular *Places Rated Almanac*, and a 2000 *Rand McNally* road atlas. From the multiple types of information available in these sources, some fuzzy *ad hoc* criteria were used to determine which laws would make the item pool. First was interest value and tendency to restrict individual freedom while potentially preserving rights for the group (For example, gun control laws restrict individual freedom, but may protect the citizenry as a whole. Also, prohibitions on the use of steel studded tires restricts individual freedom, but prevents excess wear of the roadway and thereby preserves the road for others). Second was variability: Laws which had little variability across states were discarded. Third was completeness of information: Laws for which there was not a complete (or nearly complete) set of data were discarded. Given these criteria, 10 items were chosen that represented multiple legal spheres. All variables were coded so that more restrictive laws meant higher scores and then converted to *z*-scores (*alpha* = .54). Three items were cut on the basis of low interitem correlations, lack
of clear directional relationship to legal restriction, incomplete data sets, and/or concerns over sufficient variability. This left seven items in the final index, all of which had complete data sets (alpha = .57):

1. **Handgun licensing.** A combination of four different laws: (a) Instant check, (b) Federal waiting period, (c) permit to purchase, and (d) owner ID card. These were obtained from Savageau & Loftus (1997); scores were combined in an additive manner, where 4 = restrictive laws in all cases, and 0 = no restrictive laws.

2. **Gun prohibition.** A combination of three different laws, which reflect prohibition of: (a) Open carry, (b) Assault weapons, and (c) Concealed carry. Again, these were obtained from Savageau & Loftus (1997); scores were combined in an additive manner, where 3 = restrictive laws in all cases, and 0 = no restrictive laws. “Moderately restrictive laws” in Savageau and Loftus’ table were coded as “restrictive laws” for the present purpose.

3. **Open container.** Open container driving laws prohibit open containers of alcohol in vehicles (obtained from Savageau & Loftus, 1997). Those states that have the laws were scored a 1, states without the laws a 0.

4. **Speed limit** (Inverse-Scored). The maximum speed limit was entered in each state (obtained from Rand McNally Road Atlas, 2000); speed limit is here considered inversely related to legal restriction, so that higher numbers mean the state is less restrictive.

5. **Studded tires** (obtained from Rand McNally Road Atlas, 2000). States that have laws prohibiting studded tires year-round were scored a 2; states that have laws prohibiting studded tires part of the year were scored a 1; states that permit studded tires year-round were scored a 0.

6. **Sales taxes** (obtained from Savageau & Loftus, 1997). Indicates state-wide base tax rates. This score ignores additional taxes levied by local governments, as well as exemptions for food and drugs.
Income taxes. Savageau and Loftus (1997) computed an estimate for each state of how much a two-income couple with $60,000 income and two children would typically pay in income taxes. Savageau and Loftus reported a standardized score; it is this score that is used to estimate income taxes by state.

After being converted to z-scores, the above 7 scores were averaged to create an overall Legal Restriction Index (LRI) for each state. The LRI for the 50 states and the District of Columbia (transformed so as to be anchored by 0 and 100) is presented in Table I.

Demographic Variables. Demographic variables that are empirically or conceptually related to collectivism were included in order to increase our understanding (I added a brief descriptions for these, but was guessing, so I put them in bold to assure you’d check them) (see Hofstede, 1980; Vandello & Cohen, 1999). (1-3) Three of these pertained to economic wealth/industrialization which Vandello and Cohen found to be associated with individualism (The percentage of persons within the state who fell below the poverty line in 1994, per capita income by state in 1995, and Gross State Product in 1994.) (4) Percentage of persons who fell within a minority group in 1994. (5-6) Two indicators pertained to urbanness/density which Vandello and Cohen found to be associated with collectivism: Percentage of urban population within a state in 1990, and state population density. (7) An index of violent crime comprised of murder and rape per capita (equally-weighted) from 1995 which Vandello and Cohen found to be associated with individualism. All of the above demographic statistics were obtained through the United States Bureau of the Census, either in Statistical Abstracts of the United States (1997), or via the internet. Voting behavior (percentage of persons who voted for the Democratic party) in 6 U.S. Presidential elections (dating from 1980-2000) was obtained from the internet (primarily http://www.multied.com/elections/index.html). Although the degree that the two dominant political parties in the U.S. support legal restriction varies across issues, the Democratic party
tends to support greater government intervention. Thus, it was expected that states with more legal restriction would be more likely to vote Democratic.

**Results**

**The Legal Restriction and Collectivism Relationship.** The legal restriction index was strongly positively correlated with the collectivism index, \( r[51] = .47, p = .001 \). This relationship remained strong even when simultaneously controlling for minority percent, urban percent, state population density, three measures related to economic wealth or industrialization, and violent crime, \( r = .48, p = .001 \). Partial correlations were also performed for each of the demographic variables separately; none of the seven individual demographic variables accounted in any meaningful way for the relation between collectivism and restriction. Even when controlling for the strongest covariate, urban percent, the restriction-collectivism correlation remained strong and significant, partial \( r = .43, p = .002 \).\(^1\)\(^2\)

**Demographic Variables.** The legal restriction index was positively correlated to the percentage of minority persons within a state \( r[51] = .38, p = .006 \), the percentage of persons within a state that live in urban (versus rural) areas \( r[51] = .40, p = .003 \), state population density \( r[51] = .46, p = .001 \), personal income level per capita \( r[51] = .44, p = .001 \), and gross state product per capita, \( r[51] = .41, p = .003 \). It was also positively but less strongly correlated with violent crime \( r[51] = .27, p = .059 \). The legal restriction index was largely uncorrelated with the percentage of persons living below the poverty level, \( r[51] = .09, p = .551 \). Legal restriction was positively correlated with Democratic Presidential vote across all six elections (mean \( r = .51 \); all \( p \)'s < .001). Collectivism was also significantly positively correlated with Democratic vote in 4 of the 6 elections, although the overall pattern was substantially weaker (for all six elections, mean \( r = .22 \)).

**Discussion**

Investigation 1 suggested that there is a relationship between legislative restrictions and
the collective nature of the aggregate behaviors of persons who abide under that legislation. This suggestion goes beyond the mere observation that people obey laws; it would be unremarkable perhaps to find, say, that states with strict divorce laws have lower divorce rates. Rather, it is particularly noteworthy that none of the laws measured by the legal restriction index (LRI) has any direct link to the behaviors measured in the collectivism index (USCI). This suggests that perhaps, cultural collectivism is expressed not only in attitudes and behaviors, but also in the creation of more restrictive laws. Furthermore, the relationship between restrictive legislation and cultural collectivism in the present study was not accounted for by basic demographic factors such as urbanness, minority percent, wealth, or violent crime rates.

Of course, it is worth keeping in mind that the laws that comprise the Legal Restriction Index reflect laws instituted by elected representatives. When laws are dictated from the top down, or enforced upon an unwilling segment of the population, a different relationship may emerge between political and cultural structures.

Consider, for example, laws addressing issues such as crime, abortion, and the death penalty, laws which arguably address behavior by people who could be considered to be in low power or low status positions in society. These sorts of laws generally apply to smaller portions of the population – and, importantly, often not the portion to which the voter who favors them belongs. This kind of more specifically targeted legal restriction may yield a completely different pattern of results than those obtained with the current LRI. As a result, by no means is the present index intended to be the final word on the concept of legal restriction in the United States. Rather, the LRI is conceived of as a useful starting point towards our understanding legal restriction and collectivism in the United States.

Similarly consistent with expectations, the LRI was positively related to the percentage of a state’s population that was a member of an ethnic minority group; in the U.S. currently, existing minority groups are generally considered to be more collectivistic than the European-
American majority (see Conway et al., 2001; Vandello & Cohen, 1999). In addition, consistent with previous research on the USCI (Vandello & Cohen, 1999), the LRI correlated positively with the percentage of urban population within a state. This suggests that, like cultural collectivism, governmentally initiated restriction increases as people are forced together (see Vandello & Cohen, 1999, for a discussion). The primary surprise involved material wealth/industrialization indicators: Unlike previous work using measures of cultural collectivism (Hofstede, 1980; Vandello & Cohen, 1999), the LRI was positively correlated with measures indicative of material wealth.

Even though the material wealth finding was unexpected, all of the correlations reported above provide evidence that, not only is the LRI related directly to cultural collectivism, but it is also a useful predictor of other important demographic and theoretical constructs.

Investigation 2: Collectivism and Governmentally Initiated Restriction Across Nations

Investigation 1 is limited both by the fact that its results are based on data entirely within one nation, and that its measure of legal restriction focuses on laws instituted by elected representatives and likely to apply to large portions of society. Investigation 2, in part, addressed these weaknesses. Like Investigation 1, Investigation 2 used an index of legal restriction, as well as previously-constructed indices of cultural collectivism, but also added an additional indicator of governmentally-initiated restriction, in particular a measure of political freedom. Investigation 2 examined these relations across nations representing a broad variety of political structures.

This second investigation addressed a cross-validity problem common among cross-cultural studies. Many cross-cultural studies examine relations between variables across nations, but these studies are difficult to cross-validate because of the limited number of nations for which data are usually available. Cross-validation is, however, sometimes possible by looking at the relations between variables both across states within a nation and across nations.
That procedure is being followed here (see also Conway, Ryder, Tweed, & Sokol, 2001 for further discussion of this cross-validation method)

**Method**

**Collectivism.** In order to assure that any findings were not due to the idiosyncratic tendencies of a single indicator of national collectivism, two different measures of national collectivism representing two somewhat different conceptions of the construct were utilized. First, Smith et al.’s (1995) index of “utilitarian involvement/loyal involvement” was used. Smith et al. (1996) argued that their index of “utilitarian involvement/loyal involvement” conceptually mirrored Hofstede’s individualism construct (indeed, in their sample, the two indexes were highly correlated, \( r = .55 \))^3, but was more clearly related to horizontal forms of collectivism in which groups are valued highly, but submission to group demands is not necessarily expected. Thus, this index served as the primary “horizontal cultural collectivism” index for the 1990’s/2000 era in the present study. In addition, Smith et al. published a related index of egalitarianism/conservatism that they argued was more closely related to vertical forms of collectivism in which individual members are expected to submit to group demands. As a result, this index was inverse-scored (so that higher scores represent higher conservatism) and included as the primary “vertical cultural collectivism” index.

**Governmentally Initiated Restriction Indices.** Also, two indexes of governmentally initiated restriction were used in this study: an index of political restriction which has received extensive use in prior studies, and an index of legislative restriction created for the current analyses. The political restriction index was derived by averaging the 1990-91 Freedom House (2001) indexes “political rights” and “civil liberties.” Freedom House, founded by Eleanor Roosevelt (among others), is a non-profit, non-partisan organization that opposes oppressive dictatorships and supports democracy. The Freedom House index is considered one of the major indicators of nations’ political freedoms and is strongly positively correlated with other
such indicators (Vanhahen, 2000). As a result, it has been used extensively in previous research as an indicator of political freedom, democracy, or human rights (e.g., Dixon & Senese, 2002; Nasi, 2001; Vanhanen, 2000). Conceptually, this political restriction index represents the amount of political freedom that is experienced by citizens within a given nation, with higher scores indicating less freedom. The Freedom House (2001) indexes used in Investigation 2, have been constructed using similar criteria since 1972, and so provided the further advantage of allowing cross-lag correlations to be calculated in Investigation 3.

To create a legal restriction index for the 1990/2000 era, three different sets of laws were used. (1) First, laws pertaining to the legal restriction of gun use were averaged (United Nations, 1995). (2) Second, the average of two road safety laws -- maximum speed limit laws (National Motorists Association, 2001) and the official national blood alcohol limit for DUI arrests (National Highway Traffic Safety Administration, 2000) -- was computed. (3) Third, the average of income and sales tax percentages was computed (each computed by averaging the low-end and high-end percentages; Tax-news.com, 2001). Only four nations had complete sets of laws across all three components of the legal restriction index. Thus, to compute an overall index of legal restriction, the three legal restriction indexes were standardized and the mean of these standardized scores was computed irrespective of the number of available scores. (Thus, if a nation had only tax laws, its score would be its tax law score; if a nation had both tax and road safety laws, its score would be the average of these two scores, and so on). It is worth noting that this overall index is biased in favor of the laws (tax and road safety) for which more national data were available. Further, these three legal restriction indexes were either largely uncorrelated ($r$'s = -.04 and -.06) or negatively correlated ($r = -.32$, $p = .059$) with each other, and as such do not form a coherent index of legal restriction. Because of the difficulties associated with the overall index, the three legal restriction scores were also analyzed.
It is worth noting that the legal restriction and political restriction index potentially differ on the horizontal/vertical dimension of collectivism. The political restriction index is a measurement of the vertical dimension: It describes the degree that the population in a nation has laws forced upon it without choice from the top down. The legal restriction index in Investigation 2, however, is a little less clear. On the one hand, the laws used in Investigation 2, like the laws from Investigation 1, are highly horizontal in nature: In the main, they apply to a large percentage of the population rather than being applied especially to low-status people. On the other hand, because many of the nations under study are not democracies, many of these laws were not decided upon by the population at large. Thus, although the laws may be fundamentally horizontal, in many cases the process by which they were enacted was entirely vertical in nature. However, the legal restriction index is, at the very least, clearly more conceptually horizontal than the political restriction index. Given this difference, it is perhaps unsurprising that the two indexes were slightly negatively correlated, $r_{[73]} = -.13, p = .271$.

Results

Table III presents the correlations between the political and cultural measures during the 1990 era. There was a positive correlation between the political restriction index and the two cultural collectivism indexes. This correlation was much stronger for vertical cultural collectivism than for horizontal cultural collectivism.

The results were less clear for the legal restriction index. The low internal consistency of the national legal restriction index as described above suggests that the measure may lack construct validity, but we have nonetheless includes the results both for the sake of completeness and because one could make an argument that high internal consistency in this case may not be necessary; in particular, though summing individual laws to create an index of
restriction makes sense, one would expect lower consistency among laws than one would usually find among questions on a questionnaire. Overall, there was a mild negative correlation between the legal restriction index and the two cultural collectivism measures. However, this correlation differed markedly for each of the three types of laws. For horizontal cultural collectivism, strongly positive correlations emerged for the gun laws as expected, but negative correlations emerged for tax laws. For vertical cultural collectivism, correlations were negative for gun and tax laws, but positive for road safety laws.

Discussion

Like Investigation 1, Investigation 2 provided evidence that an index of governmentally initiated restriction could be positively related to measures relevant to cultural collectivism. In particular political restriction was positively associated with vertical collectivism. It is noteworthy that this index, unlike the measurement used in Investigation 1, measures the vertical dimension of governmentally initiated restriction. This suggests that the relationship between governmentally initiated restriction and cultural collectivism does not exclusively occur for horizontal markers of political entities. It is also noteworthy that this vertical measurement was much more positively correlated with a vertical measurement of cultural collectivism than a more horizontal measurement. This sensibly suggests that perhaps the relationship between political and cultural structures may be partially dependent on a very specific “match” between them: Vertically restrictive political structures may have a stronger relationship with vertical cultural structures, while horizontally collective political structures may have a stronger relationship with their horizontal cultural counterparts.

The measure of legal restriction did not, however, produce the expected correlation with collectivism. One could suggest that the lack of complete data on legal restriction for most countries handicapped the index, but our further examination revealed that the subcomponents varied in their relation with collectivism. Possibly constructing an index of legal restriction
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across nations is more complicated than doing so across states within a nation because specific laws have different meanings across widely differing political contexts.

Investigation 3: Which Comes First: Political or Cultural Structures?

Investigation 3 examines which of cultural collectivism and governmentally initiated restriction tend to be more predictive of change in the other. In particular, the investigation examines the predictive power of cultural collectivism and governmentally initiated restriction across time (1970 and 1990). The logic is as follows: If Variable A (e.g., cultural collectivism) causes changes in Variable B (e.g., governmentally initiated restriction), then Variable A at time 1 will predict variable B at time 2 even after controlling for Variable B at time 1. This analysis alone does not provide conclusive evidence for causal relations but can help determine which causal direction (A causing B, or B causing A) is more plausible.

Method

**State Collectivism: 1970-1990.** A truncated measure of the U.S. Collectivism Index (USCI) was used for the cross-lag correlations across U.S. states because, not all items in the original USCI could be obtained for each state for 1970 and 1990. To measure cultural collectivism, population statistics were obtained from the US Census of Population for 1970 and 1990 for four relevant variables. Two of these variables had direct corollaries in the original USCI (marriage/divorce ratios, ratio of carpoolers to drivers), one was an indirect corollary of an item on the USCI (people per household), and one did not have a clear corollary in the original index (percentage of persons living in group housing). In order to confirm these variables as valid measurements of cultural collectivism, the 1990 scores for each variable were correlated with the overall USCI score. Unsurprisingly, the three variables most directly related to items in the original USCI were positively correlated with the overall USCI, suggesting that they reflect the cultural collectivism construct: Persons per household \( (r = .62) \), ratio of carpoolers to drivers \( (r = .74) \), and marriage/divorce ratio \( (r = .14) \). However, the variable with no clear direct
corollary in the original USCI item pool, group housing, was negatively correlated with the USCI
($r = -.28$). As a result, the group housing variable was dropped. The three remaining variables
were converted to z-scores and averaged within each time frame to produce a Truncated U.S.
Collectivism Index (TUSCI) for both 1970 (alpha = .51) and 1990 (alpha = .16).

State Legal Restriction: 1970-1990. Also, a truncated measure of the Legal Restriction
Index (LRI) was used for the cross-lag correlations across U.S. states because, not all items in
the original LRI could be obtained for each state for 1970 and 1990. To measure legal
restriction, legal statistics were obtained for the 1970 and 1990/2000 time frames from the
Sourcebook of Criminal Justice Statistics for three relevant variables (in one instance, 2002
marijuana laws, these statistics were obtained from an internet news source). One of these
variables had a direct corollary with an item in the original LRI (gun laws from 1975 and 1995),
while two did not (marijuana laws from 1975 and 2002, and privacy laws, reverse-scored, from
1977 and 1992). In order to confirm these variables as valid measurements of legal restriction,
the 1990/2000 scores for each variable were correlated with the overall LRI score.
Unsurprisingly, the variable with the clear direct corollary to the original LRI was strongly
positively correlated with that overall index ($r = .65$). Marijuana laws were largely uncorrelated ($r$
= .04) with the original LRI, while privacy laws were negatively correlated ($r = -.22$). Due not
only to this negative correlation, but also to potentially less direct conceptual relevance to legal
restriction, privacy laws were dropped. Despite the small correlation with the LRI, marijuana
laws were included in the indexes because of their clearer conceptual relevance to the legal
restriction construct. Thus, gun laws and marijuana laws were converted to z-scores and
averaged within each time frame to produce a Truncated Legal Restriction Index (TLRI) for both
the 1970 (alpha = -.12) and 1990/2000 (alpha = .28) time frames.

National Collectivism. In 1980, Hofstede published a nation-level index of
“individualism” from data collected from 1967 to 1973. This index, which Smith, Dugan, and
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Trompenaars (1996) argued was ambiguous with respect to the horizontal/vertical dimension, was reverse-scored and used as the primary “cultural collectivism” index from the 60’s/70’s era in the present study. The Smith et al. (1996) scales indicating horizontal collectivism and vertical collectivism used in Investigation 2 were used for recent indicators of collectivism. The indices of cultural collectivism at the nation level were developed independently and, as such, contain many non-overlapping countries. This presents a dilemma: If one uses all of the available information to compute correlations (i.e., pairwise exclusions), then the nations that comprise the sample for each correlation are different, resulting in differing n’s. Further, this makes partial correlations very difficult to interpret, since it is hard to know if any reduction indicates a shift to a different sample, or a legitimate mediation effect. Therefore, the present strategy is to present zero-order correlations excluding both pairwise and listwise [I'm not sure what it means to exclude both listwise and pairwise.], while only presenting partials that use listwise exclusions. (For these listwise correlations, n = 33.)

**National Political Restriction.** The Freedom House (2001) indices of political freedom used in Investigation 2, have been constructed using similar criteria since 1972, and so both 1990-91 (previously used in Investigation 2), and 1972 indexes of political restriction were constructed using the procedure described in Investigation 2. The data required to construct the national legislative restriction index for the earlier era was not available, so this index was not used in the cross-lag correlations.

During the 1960/70 era, only one indicator existed relevant to both cultural collectivism (Hofstede’s measure) and governmentally initiated restriction (the Freedom House political restriction index). These two indexes were strongly positively correlated, \( r (42) = .64, p < .001. \)

**Results**

**Cross-Lag Correlations among States.** Cross-lagged longitudinal correlations on the truncated legal restriction and collectivism indexes were examined in order to assess which...
variable predicted future changes in the other and in order to assess the possibility of causal relations. Specifically, the truncated legal restriction scores from 1970 were correlated with the 1990 truncated collectivism scores, and the truncated collectivism scores from 1970 were correlated with the 1990 truncated legal restriction scores.

Zero-order correlations suggested that 1970 collectivism scores were predictive of future legal restriction scores ($r_{[51]} = .36$, $p = .009$). The 1970 legal restriction scores were also predictive of future collectivism scores, although not as strongly ($r_{[51]} = .27$, $p = .057$). Table IV summarizes the cross-lag correlations. However, when controlling for their initial relationship in 1970, a greater difference emerged between the predictive validity of the two indexes: Whereas 1970 collectivism scores were still moderately predictive of future legal restriction scores (partial $r = .27$, $p = .057$), the 1970 legal restriction scores were only mildly predictive of future collectivism scores, ($r = .12$, $p = .395$).5,6

**Cross-Lag Correlations among Nations**

Using pairwise exclusions, 1960/70 cultural collectivism was strongly predictive of future political restriction, $r(62) = .53$, $p < .001$. On the other hand, 1960/70 political restriction was not predictive at all of future horizontal cultural collectivism, $r(42) = -.03$, $p = .832$.

Using listwise exclusions, both of the above relationships were very strong, $r$'s = .73 and .65, respectively. However, when controlling for the initial relationship between political restriction and cultural collectivism, the 1960/70 cultural collectivism measure predicted future political restriction ($r = .39$, $p = .027$), but 1960/70 political restriction was not very predictive of future horizontal cultural collectivism, ($r = .11$, $p = .562$).

Parallel analyses using vertical cultural collectivism as the cultural measure yielded similar results for the partial correlations. Although, using pairwise exclusions, cultural collectivism was somewhat less predictive of future political restriction than vice versa ($r$'s = .53 and .74), partial correlations using listwise exclusions suggested that this was due in large part
to the initial relationship between the two variables. When controlling for this initial relationship using listwise exclusions, 1960/1970 cultural collectivism was more predictive of future political restriction ($r = .39, p = .027$) than 1960/70 political restriction was of future vertical cultural collectivism ($r = .17, p = .349$). Please see Table IV for a summary of longitudinal analyses.

**Discussion**

When controlling for their initial relationship, at the state level, a measure of cultural collectivism predicted future legal restriction more strongly than legal restriction predicted future cultural collectivism – given enough time. Further, the nation-level data, even more strongly than the state-level data, suggest that measures relevant to cultural collectivism predicted changes in restriction better than vice versa. This pattern is at least suggestive that cultural structures may contribute to the emergence of future political structures more strongly than vice verse. However, given the difficulties associated with the construction of the truncated variables, the lack of consistency across time frames, and the moderate effect sizes, it would be premature to draw firm conclusions about the predictive power of cultural or political structures. Thus, although these data provide strong evidence that a relationship between political and cultural structures exist, caution is warranted when drawing conclusions about how that relationship emerged in the present data.

**General Discussion**

**Relationship Between Cultural Collectivism and Governmentally Initiated Restriction**

Taken together, the results of the three investigations provide evidence of a relation between governmentally initiated restriction and national culture. In Investigation 1, a measure of legal restriction was positively related to a measure of behavioral collectivism across the U.S. states. In Investigation 2, a measure of political restriction was positively related to vertical collectivism. In Investigation 3, cultural collectivism predicted future governmentally initiated restriction both across nations and across U.S. states better than vice verse (when controlling
for the initial relationship). This work thus gives some life to previous researchers’ speculations about the relationship between collectivism and politics (Singelis et al., 1995; Triandis & Gelfand, 1998).

Of course, one of the problems in the present work is that the legal restriction index did not show the same pattern of results across nations as it did across the U.S. states. Why might this be? There are a number of possibilities. First, the index across nations is less reliable: Due to non-matching samples of nations across items, different nations’ scores on the index are often comprised of a different mix of indicators. Thus, it is possible that the difference across the two studies is simply a methodological artifact: If one were able to obtain a more complete set of indicators (we could not) for all of the laws across nations that were used across states, the results may look more similar across the two studies.

We suspect that the differences on legal restriction between the two studies emerged for more important theoretical reasons, however. It could be that legal restriction is a valid indicator of legislative restriction only when there is an overall legal and cultural similarity amongst the persons comprising the varying cultural units. Consider, for example, that in the U.S., many of the laws used are currently the focal point of much cultural and legal debate – thus they are culturally-relevant touchpoints for most of the states under consideration. However, because widely different cultures value specific legal issues differently, it may be that legal restriction across nations does not hit upon the same shared cultural relevance – and thus does not produce meaningful correlations. Similarly, it could be that in the U.S., the things that influence the emergence of laws are very closely related across different states; while the emergence of laws across different nations could be influenced by such a wide variety of factors (from revolutions to referendums) that the legal restriction indicator loses its significance. This is speculative, however. What can be noted with certainty is that the national legal restriction index manifested no association with culture across nations even though the state legal
restriction index was associated with culture across U.S. states and even though the political restriction index was associated with culture across nations

**The Predictive Power of Cultural Collectivism**

Across both Investigation 1 and Investigation 2, measures relevant to cultural collectivism were more predictive of measures relevant to political/legal structures than vice versa. This pattern was especially strong in both studies when controlling for the initial relationship between the two variables in the 1960/70 era. Although this pattern was less pronounced, less consistent, and more open to sampling bias concerns for the U.S. than the world data, such similarity across conceptually related but operationally distinct measures is intriguing. Indeed, the results across nations, where cultural collectivism predicted future political restriction across nations but not vice versa, are particularly surprising. It suggests that changes in the collective psychology of populations can predispose them for acceptance of future political changes -- even when (as is the case in some of the nations under scrutiny here) those changes seem to result from factors out of the control of the populace at large.

**Conclusion**

Although not all aspects of this story are tidy, taking a step back to view the larger picture emerging from Investigations 1, 2, and 3 suggests an interesting and coherent panorama. Despite very different methodologies and samples, the studies show convergence between political and cultural structures related to collectivism. Taken as a whole, the present results provide evidence that considering, like Aristotle and Mill, the ways in which a state deals with the inherent tension between the collective good and individual freedom can bear some meaningful theoretical fruit for social psychologists. This tension is inevitably tied to both culture and politics and, as such, can serve as a good point to bridge the current gap between them. The present work is intended to offer a beginning to this bridge, with the hope that future researchers will continue its construction.
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References


Beverly Hills: Sage.


Footnotes

1. In the present data set, the USCI correlated less ($r = .25$) with urban percent than in Vandello and Cohen’s (1999) results ($r = .38$), thus it is possible (though unlikely) that the present results under-represent the mediational impact of urban percent.

2. An initial study of a narrow range of “road safety” laws yielded a somewhat similar but weaker pattern of results. Towards addressing the potential for selection bias, 18 variables that had originally been in the item pools (from both the initial unreported “road safety” study, the original LRI reported here, and the 1990 longitudinal scores) were converted to z-scores and averaged to create an overall index. This index represented almost every item that had ever been considered for use in the index in the 1990/2000 era. Analyses for this overall index suggested a pattern of results similar to that of the reported LRI: The correlation between the overall index and the USCI was $.34$, $p = .016$. (Controlling for the demographic factors and violent crime rate reduced this correlation only minimally, partial $r = .29$, $p = .063$).

3. In the present study, these two indexes were correlated at $r = .71$. The reasons for the discrepancy are unclear.

4. The original intended use of this index for the present study was to examine whether “type of government” (either totalitarian/dictatorial or republican/democratic) moderated the legal restriction/cultural collectivism relationship. Only after the positive political restriction/cultural collectivism relationship emerged did its obvious direct relevance to the governmentally initiated restriction construct occur to the authors. Because of this, all tests using the political restriction index are post hoc, and are thus presented with two-tailed tests. While of course the post hoc nature of these tests is ground for caution when making interpretations, it should not undermine the obvious theoretical relevance of the political restriction measure.

5. If one includes the “group housing” variable in the USCI and the “privacy laws” variable in the LRI, the predictive validity of the two indexes are much more similar (1970
TUSCI-1990 TLRI partial $r = .22$; 1970 TLRI-1990 TUSCI partial $r = .17$). On the other hand, if one uses only the “gun” variable as the LRI indicator, the difference in predictive validity is stronger (1970 TUSCI-1990 TLRI partial $r = .29$; 1970 TLRI-1990 TUSCI partial $r = .10$).

6. Additional indexes were constructed for the 1980’s. No marijuana laws could be obtained for the 1980’s, so the legal restriction index for that time frame consisted of only gun laws. Longitudinal analyses using the 1980’s data generally yielded weak results. When controlling for the initial relationship between gun restriction and the TUSCI, the 1970’s variables were not predictive at all of the opposing 1980’s variables (both partial $r$’s = -.03). These same analyses yielded a pattern of results for the 1980’s-1990’s transition that was in the opposite direction of that reported for the 1970’s-1990’s transition (1980 TUSCI-1990 gun restriction partial $r = .11$; 1980 gun restriction-1990 TUSCI partial $r = .27$). This latter finding interestingly suggests that the amount of time moderates the causal nature of the relationship between political and cultural structures: Political change may be an effective means of instituting short-term cultural change, but over longer periods of time, this effect of political structures wears off. However, despite the intuitive appeal of this idea, the 1980’s data should be treated with caution, because only one indicator of legal restriction was used for these analyses. (Indeed, including all possible indicators of legal restriction and cultural collectivism for the 1980’s yields a very different pattern of partial correlations: 1970 TUSCI-1980 TLRI $r = -.06$; 1970 TLRI-1980 TUSCI $r = .11$; 1980 TUSCI-1990 TLRI $r = .21$; 1980 TLRI-1990 TUSCI $r = .02$.)
### Investigation 1: State Rankings on the Legal Restriction Index

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>District of Columbia</td>
<td>100.0</td>
</tr>
<tr>
<td>2</td>
<td>Hawaii</td>
<td>85.6</td>
</tr>
<tr>
<td>3</td>
<td>Illinois</td>
<td>80.6</td>
</tr>
<tr>
<td>4</td>
<td>South Carolina</td>
<td>73.3</td>
</tr>
<tr>
<td>5</td>
<td>Minnesota</td>
<td>67.5</td>
</tr>
<tr>
<td>6</td>
<td>New Jersey</td>
<td>66.8</td>
</tr>
<tr>
<td>7</td>
<td>New York</td>
<td>63.7</td>
</tr>
<tr>
<td>8</td>
<td>Michigan</td>
<td>63.4</td>
</tr>
<tr>
<td>9</td>
<td>Ohio</td>
<td>63.0</td>
</tr>
<tr>
<td>10</td>
<td>Maryland</td>
<td>58.4</td>
</tr>
<tr>
<td>11</td>
<td>Iowa</td>
<td>57.3</td>
</tr>
<tr>
<td>12</td>
<td>Massachusetts</td>
<td>56.7</td>
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<tr>
<td>13</td>
<td>Wisconsin</td>
<td>56.5</td>
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<tr>
<td>14</td>
<td>Utah</td>
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<td>Georgia</td>
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<td>California</td>
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<td>18</td>
<td>Kansas</td>
<td>50.1</td>
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<td>Connecticut</td>
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<td>Maine</td>
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<td>Virginia</td>
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<td>Rhode Island</td>
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<td>24</td>
<td>Indiana</td>
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<td>25</td>
<td>Nevada</td>
<td>40.5</td>
</tr>
<tr>
<td>26</td>
<td>Mississippi</td>
<td>39.3</td>
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</table>
### Table I (cont.)

State Rankings on the Legal Restriction Index

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.</td>
<td>Pennsylvania</td>
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<tr>
<td>28.</td>
<td>Alabama</td>
<td>38.8</td>
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<tr>
<td>29.</td>
<td>North Dakota</td>
<td>37.9</td>
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<tr>
<td>30.</td>
<td>West Virginia</td>
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<td>31.</td>
<td>Florida</td>
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</tr>
<tr>
<td>32.</td>
<td>North Carolina</td>
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<tr>
<td>33.</td>
<td>Louisiana</td>
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</tr>
<tr>
<td>34.</td>
<td>Kentucky</td>
<td>35.0</td>
</tr>
<tr>
<td>35.</td>
<td>Tennessee</td>
<td>33.7</td>
</tr>
<tr>
<td>36.</td>
<td>Arkansas</td>
<td>32.9</td>
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<tr>
<td>37.</td>
<td>Washington</td>
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<tr>
<td>38.</td>
<td>Missouri</td>
<td>31.0</td>
</tr>
<tr>
<td>39.</td>
<td>Alaska</td>
<td>28.5</td>
</tr>
<tr>
<td>40.</td>
<td>New Mexico</td>
<td>28.4</td>
</tr>
<tr>
<td>41.</td>
<td>Oregon</td>
<td>28.2</td>
</tr>
<tr>
<td>42.</td>
<td>Nebraska</td>
<td>28.2</td>
</tr>
<tr>
<td>43.</td>
<td>Vermont</td>
<td>26.7</td>
</tr>
<tr>
<td>44.</td>
<td>Delaware</td>
<td>25.2</td>
</tr>
<tr>
<td>45.</td>
<td>Texas</td>
<td>24.0</td>
</tr>
<tr>
<td>46.</td>
<td>Arizona</td>
<td>19.6</td>
</tr>
<tr>
<td>47.</td>
<td>South Dakota</td>
<td>19.4</td>
</tr>
<tr>
<td>48.</td>
<td>Colorado</td>
<td>13.9</td>
</tr>
<tr>
<td>49.</td>
<td>New Hampshire</td>
<td>8.6</td>
</tr>
<tr>
<td>50.</td>
<td>Montana</td>
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</tr>
<tr>
<td>51.</td>
<td>Wyoming</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: Higher scores = more legal restriction. Scores transformed so as to be anchored by 0 and 100.
Table II

**Investigation 1: Correlations between Legal Restriction and Cultural Collectivism Across States**

<table>
<thead>
<tr>
<th>Legal Restriction Index (LRI)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>z e r o</td>
<td>order</td>
<td>partial</td>
</tr>
</tbody>
</table>

| Collectivism (USCI)          | .47***   | .48**    |

Note: ***p < .001; **p < .01
Partial correlation controls for minority percent, urban percent, population density, wealth, industrialization, and violent crime
Table III

Investigation 2: Correlations Between Governmentally Initiated Restriction and Cultural Collectivism Across Nations During the 1990 era

<table>
<thead>
<tr>
<th>Political Measure</th>
<th>Horizontal Collectivism</th>
<th>Vertical Collectivism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political Restriction</strong></td>
<td>.18</td>
<td>.66**</td>
</tr>
<tr>
<td><strong>Legal Restriction</strong></td>
<td>-.19</td>
<td>-.17</td>
</tr>
<tr>
<td>Gun Restriction</td>
<td>.54**</td>
<td>-.35^</td>
</tr>
<tr>
<td>Tax</td>
<td>-.41*</td>
<td>-.33#</td>
</tr>
<tr>
<td>Road Safety</td>
<td>-.14</td>
<td>.25</td>
</tr>
</tbody>
</table>

Note: **p < .01; *p < .05; #p < .07; ^p < .10. For Gun Restriction, n = 26; for Tax, n = 35; for Road Safety, n = 34; for the Total LRI, n = 36; for Political Restriction n = 42. “Total LRI” = average of Gun Restriction, Tax, and Road Safety laws.
Table V

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Across States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zero-Order</td>
<td>.36**</td>
<td>.27#</td>
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<tr>
<td>Partial</td>
<td>.27#</td>
<td>.12</td>
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<tr>
<td>Across Nations:</td>
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<tr>
<td>Horizontal Collectivism</td>
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<tr>
<td>Zero-Order</td>
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<td>-.03</td>
</tr>
<tr>
<td>Partial</td>
<td>.39*</td>
<td>.11</td>
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<tr>
<td>Vertical Collectivism</td>
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<td></td>
</tr>
<tr>
<td>Zero-Order</td>
<td>.53**</td>
<td>.74**</td>
</tr>
<tr>
<td>Partial</td>
<td>.39*</td>
<td>.17</td>
</tr>
</tbody>
</table>

Note: **p < .01; *p < .05; #p < .07. For both investigations, partial correlations control for the initial (1960/1970) relationship between political and cultural structures. For Investigation 2, zero-order correlations use listwise exclusions, partial correlations use pairwise exclusions (see Text for more details). Also for Investigation 2, “1960/1970 Cultural with 1990/2000 Political” correlations are identical for Horizontal and Vertical Cultural measures because the 1960/1970 cultural collectivism index did not distinguish between these two dimensions.