Time Punctuality and Social Cohesiveness

William R. DiPietro  
Professor of Economics  
Daemen College  
4380 Main St, Amherst, NY 14226  
United States of America

Abstract

This paper uses cross country regression analysis to consider whether the cultural trait of time punctuality is positively associated with social cohesiveness, and negatively related to the highly socially disintegrating force of corruption. The results are consistent with both notions. It appears that greater punctuality has a twofold beneficial effect on social binding. Time punctuality simultaneously increases social cohesiveness, and, at the same, it reduces corruption.

A cultural trait that differs markedly across countries is time punctuality. While some countries are laid back with little time consciousness, with people and events rarely on time, others are very time conscious and demand punctually for all events and for all occasions. Long ago, Emile Durkheim looked for the glue that binds modern industrial society together. While it is almost certain that time punctuality will affect economic forces such as efficiency and productivity, it may also be socially important, as one of the factors that unites a modern society, a society, when compared to tribal society, composed essentially of strangers, together.

The paper is divided into a number of sections. The first section provides a small literature review highlighting a few of the recent articles on social cohesion. The second section presents a theoretical framework consisting of two equations in which time punctuality is imbedded as an explanatory variable and predicted to be a determinant of country social cohesiveness. The third section discusses the variable that is used to capture social cohesion for empirical purposes, as well as the other variables that are employed in the empirical analysis. In addition, this section identifies the sources for all of the variables. The fourth section, the key empirical analysis section, gives the results of cross country regressions of social cohesiveness on time punctuality, and of corruption, considered to be a major disintegrating force, on time punctuality. Finally, the fifth and last section concludes.

I. Some Background Literature

Easterly, Ritzan, and Woolcock put forth the idea that the lack of social cohesion in a society constrains and handicaps political ability to provide effective policy thereby dampening economic growth (Easterly, Ritzan, and Woolcock 2006). Using the share of the middle class and the lack of ethnic fractionalization as measures of social cohesion along with a variety of different institutional variables, their regression analysis lends support to their contention that less social cohesion leads to reduced institutional quality and that poorer institutional quality, in turn, lowers economic growth.

Kasper Stovring maintains that culture is the underlying key to social cohesion, and, in his paper, he provides a comprehensive outline of cultural features that he believes will add to social integration (Sovring 2011). He feels that without the necessary cultural underpinnings consisting of the right informal norms, attempts to achieve social unity from above by political, legal, or economic means are unlikely to be successful. To attain greater social cohesion, he believes there needs to be greater stress on ethnos as opposed to demos. In terms of the nation state, he sees the nation, not the state, as the fundamental integrating factor in society. He uses Denmark as an example of a highly cohesive society, and decries the European Union as a cohesive failure previously because it lacks informal integrating cultural characteristics for the system as a whole.

Hooghe criticizes the research findings showing that ethnic and cultural diversity reduces general trust, and, by so doing, reduces social cohesion and stability in society (Hooghe 2007).
He feels a major problem with these studies is they look at the effect of the amount of diversity on social cohesion but fail to adjust for changes in diversity. An increase in diversity is likely to result in only a temporary reduction in trust, a temporary pause until a culture adapts to a higher level of diversity. In addition to taking into account the changes in diversity, to get a true picture of the relationship between trust and diversity, Hooghe postulates the relationship between trust and diversity also needs to take into account the extent of segregation versus interaction between divergent groups.

Overall, as a general proposition, Hooghe argues, especially given the increasing diversity occurring in a large number of countries today, that the focus of analysis for achieving social unity needs be on the ways and means to increase social integration assuming the presence of significant amounts of diversity in society. Even if it is true that cultural diversity is negatively related to trust, he maintains, besides trust, there are other avenues for achieving social cohesion. One such method is to establish a norm of reciprocity in society.

Tokman looks at labor market conditions in Latin America (Tokman 2007). He works under the assumption that greater insecurity and vulnerability of the middle and lower classes reduces social integration, and that greater eligibility and extent of social protection increases social cohesion. The level of insecurity of the people of Latin America is currently very high due to globalization, large informal employment sectors, and pronounced business cycle swings. He suggests various strategies for increasing social protection in Latin American labor markets to mitigate anxiety and to bring about greater inclusiveness and social cohesion.

Green and Preston advocate a societal approach to investigating social cohesion (Green and Preston 2001). In their correlation analysis employing a cross national perspective, they find that both educational inequality and income inequality, which is caused by greater educational inequality, are negatively correlated with general trust, and that crime is positively associated with income inequality. In line with their notion that it is not necessarily the extent of membership, but, rather, the character of the organizations that people join that matter for social cohesion, they find that associational memberships are not significantly correlated with general trust.

Joseph and Elaine Chan investigate social cohesion in Hong Kong (Chan 2006). They conduct a survey to assess vertical social cohesion, social cohesion of people in Hong Kong toward their government, and horizontal social cohesion, social cohesion of people in Hong Kong toward other members of society. They find that although individuals score high on feelings of horizontal unity, they do not seem to put their feelings into actions in terms of actual participation in formal social organizations. On the other hand, even though people in Hong Kong score low with regard to feelings of vertical integration, they still tend to be highly politically engaged. The Chans believe that the divergence between feelings and actions in terms of horizontal social cohesion can be explained away by taking into account the high level of involvement in non-formal forms of association, such as the family and informal groups, of Hong Kong citizens.

Portes and Vickstrom question Putnam’s findings in *Bowling Alone* regarding social capital as a causal factor in terms of education performance, inequality, single parenthood and other important societal variables (Portes and Vicstrom 2011). They suggest that for many of Putnam’s relationships the causation actually may go the other way around and for others the relationships may be completely spurious. In addition, they review the recent empirical literature on the relationship between trust and economic diversity and find it mixed and inconclusive. But most important for the topic considered in this paper, they theorize along classical sociological lines that it is possible to have a highly cohesive individualistic society based on universalistic rules when communitarianism is low as long as state and private coordinating institutions are strong. They feel such a society can maintain social cohesion even in the face of high levels of immigration.

**II. The Model**

The model consists of two similar equations with their associated partial derivatives. The first equation, the social cohesiveness equation, is an equation that attempts theoretically to identify potentially important determinants of social cohesiveness, and the effect of each potential determinant on social cohesion. The equation is as follows.

1. \[ S = f(P, L, D) \]
   \[ \frac{\partial S}{\partial P} > 0, \frac{\partial S}{\partial L} > 0, \frac{\partial S}{\partial D} > 0 \]

In the equation, \( S \) represents the amount of social cohesiveness, \( P \) stands for time punctuality, \( L \) is the level of economic development, and \( D \) is the extent of democracy.
The second equation looks at corruption. Corruption is a major centrifugal, or anti-social cohesive force, in society. The second equation, the corruption equation, attempts to explain the disintegrating force of corruption with the same arguments that are used to explain social cohesiveness in the social cohesiveness equation, but, in this case, with opposite signs for partial derivatives from those in the social cohesiveness equation. The second equation, the corruption equation, is as follows.

2. \( C = g(P, L, D) \) \( \delta C/\delta P < 0, \delta C/\delta L < 0, \delta C/\delta D < 0 \)

In equation 2, \( C \) represents corruption, with \( P, L, \) and \( D \) defined in the same way as they are for equation 1.

The key variable of interest, time punctuality, is posited to have a positive effect on social cohesiveness (a negative effect on the anti-social cohesive force of corruption). The basic idea is that societies with lesser time consciousness place greater stress on local cohesiveness as opposed to the global cohesiveness of society as a whole. Societies with little time punctuality place heavy weight and value on personal relationships, and, therefore, invest their time, energy, and resources in developing personal relationships, such as family and friends, at the expense of macro societal relationships. For instance, if a low punctuality society individual meets a friend on his way to a business meeting, he is likely to spend time with his friend, would feel guilty if he did not, and would have no qualms that by so doing he might arrive late for his business meeting.

As a general rule, it is anticipated that greater levels of economic development lead to less reasons for social discontent, greater positive identification with society, and greater social cohesion. This is because economic development typically means greater income for the masses of people, milder business cycle fluctuations and its associated employment instability, and more generous and inclusive safety networks and welfare functions.

Higher levels of democracy are expected to lead to increased social integration. As a rule, the more pronounced are the feelings of citizens of the country that they can have some influence on governmental policies; the more they are likely to identify with the government, and take the government from the heart as their government. More democratic governments tend to be more responsive to citizens demands. They allow for greater participation of ordinary people in the processes of government, and have numerous legitimate accessible channels for the common people to express concerns and discontents.

**Iii. Data Sources**

The measure of social cohesiveness is Roberto Foa’s index of social cohesion (Foa 2011). The fundamental aim of the index is to try to capture the extent of cooperation, and, the degree that cooperation is fostered, between different identity groups within a country. The index is compiled using various indicators from a variety of sources from the period 1990 to 2005 and is available for one hundred and sixty five countries. The index varies from a low value of 2.44 for Somalia with a high value of 9.42 for Canada with higher values indicating greater social cohesion.

The measure of corruption is transparency international’s corruption perception index for 2008 with a small variation for ease of understanding (Transparency International 2008). Ten minus transparency International’s corruption perception index is used instead of the corruption perception index itself because the corruption perception index, ranging between zero and ten, is inverted with higher values indicating, not more, but less corruption.

Culture Crossing’s internet site is the underlying source for the construction of a punctuality index by the author (Culture Crossing 2013). Using their views of time category, countries are rated from one to four with higher values indicating greater time punctuality.

Gross domestic product per capita for 2005 in real 2000 dollars is employed to quantify the level of economic development. The data for the variable comes from the World Bank (World Bank 2011).

Democracy is measured using the democracy index of the of the economist magazine for 2008 (The Economist 2008). This index ranges from zero to ten. Higher values for the democracy index indicate greater democracy.

**Iv. Cross Country Regressions of Social Cohesiveness on Time Punctuality**

Table I shows the results of regressions of social cohesion on time punctuality, on time punctuality and the level of economic development, on time punctuality and the extent of democracy, and on time punctuality in combination with both the level of economic development and the extent of democracy.
Table I: Cross Country Regressions of Social Cohesiveness on Time Punctuality and Other Variables

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>2.876</td>
<td>3.736</td>
<td>2.196</td>
<td>3.016</td>
</tr>
<tr>
<td></td>
<td>(11.45)*</td>
<td>(15.85)*</td>
<td>(9.11)*</td>
<td>(11.17)*</td>
</tr>
<tr>
<td>PUNCTUALITY</td>
<td>1.023</td>
<td>.4350</td>
<td>.7032</td>
<td>.3579</td>
</tr>
<tr>
<td></td>
<td>(9.40)*</td>
<td>(3.55)*</td>
<td>(6.58)*</td>
<td>(3.07)*</td>
</tr>
<tr>
<td>DEVELOPMENT</td>
<td>.000062</td>
<td>.2323</td>
<td>.000046</td>
<td>.1625</td>
</tr>
<tr>
<td></td>
<td>(6.88)*</td>
<td>(5.74)*</td>
<td>(5.06)*</td>
<td>(4.18)*</td>
</tr>
<tr>
<td>DEMOCRACY</td>
<td>.000062</td>
<td>.2323</td>
<td>.000046</td>
<td>.1625</td>
</tr>
<tr>
<td></td>
<td>(6.88)*</td>
<td>(5.74)*</td>
<td>(5.06)*</td>
<td>(4.18)*</td>
</tr>
<tr>
<td>RSQ</td>
<td>.420</td>
<td>.609</td>
<td>.573</td>
<td>.656</td>
</tr>
<tr>
<td>N</td>
<td>124</td>
<td>120</td>
<td>122</td>
<td>119</td>
</tr>
</tbody>
</table>

The results are very consistent with the notion that time punctuality contributes positively to social cohesiveness in society. The estimated coefficient on time punctuality is positive and significant at the one percent level of significance or better in every one of the four equations. On its own time punctuality explains over forty percent of the cross country variation in the social cohesiveness index (equation (1)), and, in combination with the two other variables, explains over sixty-five percent of the variation in the social cohesiveness index (equation (4)).

The two other explanatory variables, development, and democracy, also behave as theoretically expected in the equations in which they appear. Development is positive and significant at the one percent level of significance in the two equations that it enters (equations (2) & (4)). Similarly, democracy’s estimated coefficients are positive and significant in the two equations that it appears (equations (3) & (4)).

Table II runs an analogous set of regressions to those in contained in table I using corruption, a major anti-cohesive force in society, as the dependent variable in place of social cohesiveness. The results are once again favourable for the idea that time punctuality is favourable for social cohesiveness. As theoretically anticipated, time punctuality, the level of economic development, and the extent of democracy have a negative effect on the anti-cohesive force of corruption.

Table II: Cross Country Regressions of Corruption on Time Punctuality and Other Variables

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTANT</td>
<td>9.710</td>
<td>8.158</td>
<td>11.196</td>
<td>9.358</td>
</tr>
<tr>
<td></td>
<td>(24.82)*</td>
<td>(25.41)*</td>
<td>(29.13)*</td>
<td>(25.96)*</td>
</tr>
<tr>
<td>PUNCTUALITY</td>
<td>-1.775</td>
<td>-.6468</td>
<td>-1.204</td>
<td>-.4260</td>
</tr>
<tr>
<td></td>
<td>(-10.34)*</td>
<td>(-3.86)*</td>
<td>(-7.09)*</td>
<td>(-2.65)*</td>
</tr>
<tr>
<td>DEVELOPMENT</td>
<td>-.00013</td>
<td>-.4544</td>
<td>-.3010</td>
<td>-.00011</td>
</tr>
<tr>
<td></td>
<td>(-10.18)*</td>
<td>(-7.09)*</td>
<td>(-5.69)*</td>
<td>(-9.02)*</td>
</tr>
<tr>
<td>DEMOCRACY</td>
<td>.440</td>
<td>.712</td>
<td>.627</td>
<td>.783</td>
</tr>
<tr>
<td>N</td>
<td>138</td>
<td>132</td>
<td>127</td>
<td>123</td>
</tr>
</tbody>
</table>

V. Conclusion

The results tend to lend support to the hypothesis that the cultural trait of time punctuality is important for social cohesiveness. In regressions of social cohesiveness on time punctuality, time punctuality is statistically relevant when used alone, and after adjusting for the level of economic development and for the amount of democracy. Similarly, time punctuality is relevant for corruption when used as a single regressor in an equation or when used in combination with development and democracy.

The obvious policy implication stemming from the results of the paper is that, if we want to increase social cohesiveness in society, we need to find methods to make citizens more time conscious. One way this might be done is through the socialization process of the educational system. Requiring students, as a necessary requirement to advance through the educational system, to be on time and to attend classes regularly inculcates punctuality, and gets them into the habit of acting punctually.
Changing cultural values, giving high value to punctuality, educating students that being punctual is worthwhile, and that not being punctual imposes costs on others can help to make a new generation of citizens more time punctual and thereby increase social cohesiveness.

References