

## CHAPTER 12

# Solidarity in the Absence of External Sanctions: A Cross-Cultural Study of Educational Goals and Fair-Share Behavior

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In the main theoretical framework of the present book, it was outlined that an actor's level of solidary and prosocial behavior in a given situation is largely dependent on his or her framing of the situation. According to Lindenberg's framing theory (in this volume), three general and distinct ways of framing a given situation can be: (1) a hedonic frame aimed at immediate pleasure, (2) a gain frame aimed at the maximization of one's own personal resources and largely ignoring the well-being of others, and (3) a normative frame in which people aim to do what is morally appropriate even if such behavior opposes their material self-interests.

In this chapter we relate this theory to determine in which situations people follow social norms of fairness and (financial) honesty. When investigating this question, it is necessary to distinguish two kinds of situations. First, an actor may perceive that disobeying a certain social norm might lead to some external sanctions. Take the example of a university professor who has given a presentation at a private company and has earned 2,000 euros for this. When filling in his yearly tax declaration, he wonders whether or not to declare this extra income. This does not need to be a moral question. If the professor assumes the tax authorities will find out if he conceals this extra income and he expects severe punishment for such behavior, he may indicate the extra income simply because he wants to avoid the punishment. In the terminology of Lindenberg's framing theory, the professor's decision in this example is independent of whether he is in a normative or in a gain frame. Even if he feels no moral obligation at all to pay his taxes, he may do so because he perceives this decision to be in his material self-interest. To put it differently: if external sanctions are severe enough, problems in ensuring solidary behavior do not emerge.

However, what do people do if they do *not* have to fear any external sanctions? Consider the following example: a person finds a wallet on the street. In the wallet is some money and the address of the putative owner. What does the person do? He knows that the money isn't his and that it would be fairest to send the wallet to the owner without removing any money. However, nobody saw him find the wallet. Thus, nobody will ever find out if he keeps the money for himself. In situations like these, a person's behavior very much depends on his or her framing of the situation. If this person is in a gain frame, he will take the money. Only if he is in a normative frame will the person do what is morally appropriate and send the money back.

Many chapters in the present book deal with the question of when people use a normative frame or a gain frame in a given situation. This chapter deals with cross-country differences with regard to a certain kind of solidary behavior: people's willingness to refrain from financially exploiting others when they have the chance to do so. In determining whether people in some countries are more honest and more trustworthy than people in others, we concentrated on a cluster of behaviors that can be described as follows: (1) when disobeying rules of fairness and honesty, no sanctions are to be feared, (2) the victim of one's antisocial behavior is an unknown other person (as in the example of the lost wallet) or an anonymous institution (as in the case of tax evasion).

We refer to the degree to which people refrain from antisocial and unsolidary behavior in such situations as *fair-share behavior*. The labeling of this scale appears to be somewhat arbitrary. In previous studies in which related operationalizations were used as in this study, similar scales were called "civic virtues" by Knack and Keefer (1997), "material self-interest" by Halpern (2001), and "financial honesty" by Fetchenhauer and Van der Vegt (2001).

## **The Measurement of Fair-Share Behavior**

It is a demanding task to measure fair-share behavior at the cross-country level because it is then necessary to conduct large-scale surveys in different countries using identical questionnaires. Fortunately, items that can be regarded as indicators of fair-share behavior were measured in the World Value Surveys (WVS). This survey is an international study that was conducted in a large number of different countries at different points of time. For the present analysis, we used data from the first two waves of the WVS, which were gathered in 24 different societies in 1981 and in 43 different societies in 1990 (Inglehart, 1990, 1997). At both points of measurement, random samples comprised of approximately 1,000 to 2,000 respondents in each

country. We restricted the analysis to Western democratic industrialized countries that participated in at least one of these two waves. Nondemocratic third-world countries were excluded because in these countries the validity of participants' answers is questionable and samples might not be representative (see Van de Vliert and Lindenberg, this volume).

In both waves of the WVS, respondents were given a list of 24 behaviors that might be regarded as morally wrong. The subjects were asked to indicate how "justified" they would judge these behaviors on a 10-point Likert scale ranging from *never* to *always*. For our purposes, however, it did not appear reasonable to use all 24 behaviors as indicators of solidarity. For example, whereas euthanasia and abortion are forbidden or deviant behaviors in some countries, they are legal and socially accepted in the Netherlands. We thus restricted our analysis to seven items that refer to different aspects of fair-share behavior. The choice of these seven items was based on the following arguments: First, all seven indicators were highly correlated with each other and could thus be integrated into one single scale (see also Fetchenhauer and Van der Vegt, 2001). Second, all seven indicators refer to behaviors that are forbidden by law and are thus legally sanctioned. Third, all items refer to private decisions of a certain actor, in which the probability of external sanctions might be low.

The seven indicators were: (1) avoiding paying a fare on public transport; (2) claiming government benefits you are not entitled to; (3) cheating on tax if you have the chance; (4) buying something you know was stolen; (5) keeping money that you have found; (6) accepting a bribe in the course of duties; and (7) failing to report damage you have done accidentally to a parked vehicle. For the further analysis, we integrated these seven indicators of fair-share behavior into one single scale.

Generally speaking, respondents in all countries indicated that the seven behaviors in question were illegitimate. The averages on the 10-point Likert scale ranged between 1.6 ("Buying something you know was stolen" in 1981) to 3.0 ("Keeping money that you found" in 1990).

It may be argued that the answers of the participants were highly influenced by aspects of social desirability and that, therefore, any cross-cultural differences that might be found with regard to this scale measure differences in social desirability rather than differences in fair-share behavior. If this interpretation were correct, however, a one-dimensional structure should be found of all 24 items that measured the legitimacy of behaviors that might be condemned from a moral perspective. This was not the case as factor analyses of these 24 items revealed a multidimensional structure (see also Halpern, 2001). Of course, this multidimensionality is only an indication that the answers were not simply an artifact of cross-country differences in social desirability. More important is the relationship of the scale with behavioral measures.

In this regard, an experiment reported in the *Economist* ("Whom can you trust?" June 22, 1996) is of some importance. In 14 different European countries, 20 wallets containing \$50 and the addresses of their putative owners were intentionally lost. The percentage of wallets that were sent back to the owner in each country was positively related to our measure of fair-share behavior ( $r = .42$ ;  $p < .10$ ). Further evidence for the validity of our fair-share behavior scale comes from studies in which that scale was related to interpersonal trust, economic growth rates, and crime rates.

### ***Fair-Share Behavior and Interpersonal Trust***

Putnam (1993) assumes that (financial) honesty and interpersonal trust, as important elements of social capital, are positively correlated with each other. This positive correlation is explained in two different ways (Knack and Keefer, 1997). First, it is argued that people are able to estimate the trustworthiness of their fellow citizens: people in countries with a high level of honesty tend to trust each other because they know that most of their fellow citizens are honest (i.e., can be trusted). According to this argument, trust is merely the perception of others' honesty. Another explanation has it that in many situations it only "pays" to be honest if one's interaction partner is also honest (e.g., in a prisoner's dilemma game). According to this line of reasoning, honesty and trust can be regarded as characteristics that are mutually reinforcing. That is, the more people trust each other, the more they tend to be honest, and vice versa.

In a recent study, Fetschenhauer and Van der Vegt (2001) empirically investigated the relationship between fair-share behavior and interpersonal trust. As a measure of interpersonal trust, they used the following item from the WVS: "Generally speaking, would you say that most people in your country can be trusted or that you can't be too careful in dealing with people?" Possible answers to that dichotomous question were "Most people can be trusted" and "You can't be too careful." For each country, the percentage of people that indicated that "Most people can be trusted" was taken as a measure of general trust in others. Fetschenhauer and Van der Vegt showed that a country's level of interpersonal trust was substantially correlated to the country's degree of fair-share behavior.

### ***Fair-Share Behavior and Economic Growth Rates***

According to Putnam (1993) and Coleman (1990), the level of fair-share behavior in a country can be regarded as one element of its social capital. The main argument of social capital theory is that societies are

endowed with social as well as physical and human capital (e.g., employee's skills and knowledge), and that social capital is an important predictor of long-term economic performance. It can be argued that a high level of mutual trust and fair-share behavior in a society lowers transaction costs and thus increases economic growth (Knack and Keefer, 1997). First, less time and money has to be spent in protecting oneself against exploitation by others (e.g., fewer written contracts are needed, and contracts do not need to specify every possible contingency in advance). Second, more innovations are stimulated because fewer resources are required to monitor business partners or employees, and inventors trust that they will be able to harvest the profits from their inventions (i.e., that their inventions will not be plagiarized by others). Third, in high-trust societies, the decision to hire new personnel can rest mainly on the formal qualifications of applicants while, in low-trust societies, relatedness or personal knowledge is important to ensure the trustworthiness of a new employee. This leads people to invest more resources in their own human capital in high-trust societies because they can count on their formal skills and knowledge being considered. In sum, a high level of social capital in a country reduces transaction costs and thus stimulates activities that lead to a high level of economic growth.

In line with this reasoning, fair-share behavior (as measured in the WVS) was a significant and important predictor of economic growth rates (Fetchenhauer and Van der Vegt, 2001; Knack and Keefer, 1997). The higher a country scored on fair-share behavior, the higher its growth rates were. This relationship was still significant when a number of other variables were controlled for (i.e., urbanization, economic inequality, proportion of agriculture in the gross domestic product, and economic prosperity) (Fetchenhauer and Van der Vegt, 2001). Thus, the more people in a country tend to be honest in financial affairs, the more people trust each other and the better the country's economic performance.

### ***Fair-Share Behavior and Criminality***

As Halpern (2001) has shown, fair-share behavior, as measured in the WVS, is also significantly related to crime rates. Halpern used an index of fair-share behavior (called "material self-interest") similar to that used by Fetchenhauer and Van der Vegt (2001) and Knack and Keefer (1997), and related this index to crime rates as they were measured in the International Crime Victimization Survey (ICVS) (Van Dijk and Mayhew, 1992). In the ICVS, respondents were asked whether they had been victim to different forms of crime during the previous 12 months. An index of five different and rather serious crimes (i.e., theft, burglary, robbery, physical assaults, and sexual assaults) was used as a measure of national crime rates.

Based on a sample of 15 Western countries, Halpern showed that the lower a country's crime rate was, the higher its level of fair-share behavior ( $r = -.49$ ). This negative relationship between honesty and crime rates remained significant even when other potential predictors of crime rates (e.g., urbanization, economic inequality, or gross domestic product) were controlled for. When these variables were entered into regression analyses, the explanatory power of fair-share behavior even increased to a  $\beta$ -coefficient of .68.

In sum, the external validity of the scale used to measure fair-share behavior in the WVS was proved with regard to a number of different criteria. The higher a country's scores on the scale, the more often lost money was returned to its owner, the more people trusted each other in everyday life, the better the country's economic performance, and the lower its crime rates.

### **Educational Styles and Cross-Country Differences in Fair-Share Behavior**

Cross-country differences in fair-share do have real and important consequences. But how can these differences between different nations be explained? As was outlined above, the indicators of fair-share used in the WVS refer to situations in which an actor can follow his or her own financial interest without facing the risk of being detected. The question remains, what determines whether people internalize social fairness norms? A partial answer to how people internalize moral norms can be found in research on educational styles (Hoffman, 2000; see Hoffman, 1970). As Hoffman (2000) emphasizes, many interactions between children and their parents consist of the parents telling the children to stop or to refrain from a certain kind of behavior. Such disciplinary efforts occur up to 10 times an hour, 50 times a day, and 15,000 times a year (Hoffman, 2000). According to Hoffman, these disciplinary efforts can take three basic forms:

*Power assertion.* This kind of behavior implies threats of physical force or deprivation of possessions and privileges, and actual force or deprivation. For example, a mother sees her six-year-old son hitting his younger brother and says, "If you don't stop that immediately, I will beat you too."

*Love withdrawal.* Here, parents threaten to or actually withdraw affectionate resources from their children. For example, "If you hurt your little brother, I will not read a bedtime story to you this evening."

*Induction.* Parents using inductive methods to educate their children encourage their children to take the perspective of the victim of their behavior. By this means, they aim to stimulate empathic concern for

the suffering of the child's victim. For example, "Your little brother is very sad if you always hit him."

Hoffman (2000) notes that all three of these disciplinary methods are successful most of the time. In most instances, parents are able to make their children stop a certain kind of behavior (at least for the moment). Furthermore, all three methods make very clear the parents' disapproval of their children's behavior. Hoffman asserts, however, that there are important differences between the three kinds of behavior:

Inductions do two important things that other discipline techniques do not do: (a) they call attention to the victim's distress and make it salient to the child, thus tapping into the child's empathic proclivity (using it as an ally) by activating any or all of his or her empathy-arousing mechanisms and producing empathic distress and (b) inductions point up to the role of the child's action in causing that distress. This creates the condition for feeling empathy-based guilt, which is a feeling of intense disesteem for oneself for wrongfully hurting another. (Hoffman, 2000, p. 151)

He further argues that the more parents use inductive methods to educate their children, the more prosocial behavior gets internalized, since only this disciplinary method can raise empathic consideration for the victim of a child's misbehavior. As a large number of studies have shown, empathy with the victim is a strong determinant of prosocial behavior. Especially Daniel Batson (1991) has made this assumption central in his studies of altruistic and prosocial behavior (for an overview of these studies, see Bierhoff, 2002).

Hoffman's theory has been tested using experimental methods (Kuczynski, 1983; Sawin and Parke, 1980) and correlational methods (e.g., Krevans and Gibbs, 1996). Most of these studies confirmed Hoffman's main hypotheses. For example, Krevans and Gibbs presented parents with five different scenarios in which a child misbehaved and asked them to indicate how they would behave if their own child engaged in such behavior. The answers to these questions were categorized into the different disciplinary methods described above. The prosociality of the children (aged 11 or 14) was measured using teacher ratings as well as behavioral data the children themselves provided (donating money, which they got as a bonus). Furthermore, a number of standardized scales were used to measure the maturity of empathy of the children. In line with Hoffman's theory, the more parents indicated use of inductions and the less they indicated use of power assertion, the higher the children's degree of prosocial behavior. This link was no longer significant if children's empathy was included in the analysis. This result was in line with the assumption that the relationship between inductive disciplinary methods and prosocial behavior is mediated by the effect of inductions on children's empathy.

To summarize these results, Hoffman (2000) provides an empirically confirmed theory of how prosocial behavior is internalized. It does not help simply to punish children for their antisocial behavior. Instead, it is necessary (a) to explain to them the reasons, why their behavior was wrong, (b) to make them take the victim's perspective, and (c) to trigger empathic distress with the victim.

Lindenberg's framing theory (see Chapters 1 and 2 of this volume) can be used to further integrate Hoffman's findings on the effects of educational styles on children's prosociality into a more general theory of solidary behavior. Referring to Lindenberg's terminology, it may be argued that the basic difference between a gain frame and a normative frame lies in the focus of an actor's behavior. When adopting a gain frame, people mainly focus on the consequences of their behavior for themselves. When applying a normative frame, people also regard the possible consequences of their behavior for others.

Therefore, use of the educational method of "induction" discussed above has the consequence that people habitually approach social situations using a normative frame, while use of the methods of power assertion and love withdrawal causes people to use a gain frame when approaching social situations. When people are in a gain frame, they focus by definition on their own advantage and thus only cooperate if it is to their benefit.

In sum, Hoffman's theory of norm internalization (2000) and Lindenberg's framing theory predict that the more people have grown up in a culture that puts emphasis on internalizing prosocial norms by stimulating empathy with the potential victims of antisocial behavior, the more they will tend to act solidarily and prosocially. On the other hand, in cultures that emphasize punishment and external sanctions, people will only follow rules of fairness and honesty if such external sanctions are apparent in a given situation. Related approaches that may explain why people act less prosocially when they are threatened with punishment are Frey's "economic theory of personal motivation" (Frey and Ntozake, 1997) and Deci's "theory of intrinsic motivation" (1975).

## **The Measurement of Educational Styles**

In the WVS, participants were not asked elaborate questions about how they educated their children. However, they were given a list of 11 "qualities that children can be encouraged to learn at home" and were asked to choose up to five values that they regarded as important. The restriction to name only five important educational goals was not followed in each country to the same degree (e.g., in Iceland, respondents named 8.3 goals on average). Therefore, for the present analysis, the importance of a certain educational goal was measured by relating

its frequency of mention to the total number of all educational goals that were mentioned as important. Two educational goals can be regarded as indicators of a power-assertive style of education: “obedience” and “independence.” It can be argued that the more authoritarian the educational value system of a country, the more its inhabitants adhere to values like obedience and the less they adhere to values like independence. In line with this reasoning, both values were highly negatively related to each other ( $r = .64$ ;  $p < .01$ ): the more often respondents in a country named obedience as an important educational goal, the less often they mentioned independence as important. Thus, it was possible to integrate both variables into one single scale, which we called “authoritarian educational goals” (Cronbach’s alpha of this scale was .78 after “independence” was inverted).

For example, in Denmark, a minority of 20% indicated that “obedience” was important, but a vast majority of 81% named “independence” as an important educational goal. On the contrary, in France, 53% mentioned “obedience” as a significant educational goal, but only 27% indicated that “independence” was important. Denmark scored lowest and France scored highest on “authoritarian educational goals.”

Is it possible to measure the educational climate of a country by measuring the importance of certain educational goals in a large survey study? There is no way to answer this question directly. However, if current educational goals have their origins in deeply rooted cultural values, then these goals should be related to a number of other indicators of an authoritarian/patriarchal culture.

### ***Indicators of an Authoritarian/Patriarchal Culture***

**Age of Democracy.** It can be argued that the longer a country has been a democracy, the more its inhabitants are socialized in a way that emphasizes democratic as opposed to authoritarian and dictatorial ways of solving societal conflicts. The 18 countries that formed the basis of the present study differ in the length of time they have been ruled by a democratic government without interruption. We grouped the countries into three different categories: (1) countries that have been democratic at least since the end of World War I (e.g., Denmark, Switzerland, Britain, and the United States); (2) countries that have been democratic since World War II (e.g., Germany, Austria, and Italy); and (3) countries that had a nondemocratic government for at least some time after 1945 (i.e., Portugal, Spain, and France) (see the Appendix for the values of all countries that were included in the present analysis). We found that people in countries with a long democratic tradition, like Denmark or Switzerland, endorsed authoritarian educational goals to a much lesser degree than did people in countries with a short or unstable democratic tradition, like Spain or Portugal ( $r = -.53$ ).

**Religious Tradition.** We restricted the present analysis purposely to Western industrialized countries with a Christian tradition (Japan was, therefore, excluded from the analysis). However, although these countries are all Christian, they differ widely with respect to whether they can be described as predominantly Catholic or predominantly Protestant. We argue that Catholicism can be regarded as an indicator of an authoritarian/patriarchal culture. This argument is derived from the fact that the sphere of religion and religious institutions has shaped people's cultural value system for centuries (Hofstede, 1998). The Catholic Church can be described as much more authoritarian and patriarchal than Protestant churches. To begin with, the internal structure is highly undemocratic, with the pope having nearly dictatorial power. Furthermore, women are not allowed to become priests—a fact that clearly highlights the patriarchal nature of the Catholic Church, in which strong distinctions are made between men and women.

To measure the countries' religious traditions, we classified all countries into three different categories (see the Appendix): (1) countries with a strong Protestant tradition and a high percentage of Protestants (e.g., Sweden or Norway); (2) countries with a mixed culture of both Catholics and Protestants (e.g., Germany or the United States); and (3) countries with a high percentage of Catholics (e.g., Italy or France). It was found that people in Catholic countries like France favored authoritarian educational goals much more than people in Protestant countries like Norway ( $r = .52$ ).

**Female Empowerment.** It can be argued that the less authoritarian and patriarchal a country is, the more women take part in political decisions and hold high positions in politics and business. The United Nations (2001) ranked all countries of the world according to a so-called female empowerment index. As this index was not available for all countries, we used only one of its elements, namely, the percentage of seats in parliament that were held by women in 1990, as a measure of female empowerment (see the Appendix). This variable was strongly related to authoritarian educational goals. The more women in parliament, the less favored authoritarian educational goals were ( $r = -.66$ ).

As can be seen from the above, although the measurement of educational goals in the WVS is surely questionable, these goals were closely related to a number of external criteria. The higher the endorsement of authoritarian educational goals was, the shorter a country's history of being a stable democracy, the higher the percentage of Catholics, and the more seats in parliament were held by women. Therefore, it seems warranted to regard the measurement of educational goals in the WVS as a valid indicator of authoritarianism.

### ***The Relationship between Authoritarian Educational Goals and Fair-Share Behavior***

Having confirmed the validity of both key variables, fair-share behavior and authoritarian educational goals, we tested whether these two variables are negatively related to each other as was hypothesized based on Hoffman (2000) and Lindenberg (this volume). This was found to be the case as the correlation between “authoritarian educational goals” and fair-share behavior indicates ( $r = -.76$ ;  $p < .01$ ). The less people in a given country who adhere to authoritarian educational goals (like obedience), the more honest the inhabitants of this country were on average.

Figure 12.1 shows how 18 Western industrialized countries scored on these two dimensions. As can be seen, the countries differed greatly: on both dimensions, the countries with the highest values scored about four standard deviations higher than the countries scoring lowest. The figure also reveals a number of different clusters of countries that can be described on the basis of their geography and their cultural (e.g., sociolinguistic) background. Scandinavian countries tended to have high levels of fair-share behavior and low levels of authoritarian educational goals. This was especially the case for Denmark and Norway. The same was true for Austria and Switzerland, which are geographically very close to each other but appear different with regard to their historical backgrounds—Switzerland is mainly Protestant with a long democratic tradition, whereas Austria is mainly Catholic with a mixed political history.

Germany turned out to be a kind of an outlier in this analysis, combining a rather low degree of fair-share behavior with a very low degree of authoritarian educational goals. One can speculate that the strong tendency of Germans to oppose any kind of authoritarian education is a reaction to its Nazi history.

Most of the English-speaking countries had moderate values on both fair-share behavior and educational goals. This was true for the United States, Canada, Great Britain, and Ireland. The Netherlands was located in the same cluster (consistent with its self-image of being a rather Anglo-Saxon culture).

Countries that are predominantly Catholic and speak Roman languages, like France, Portugal, and Belgium, formed another cluster of countries. People in these countries tended to have a low degree of fair-share behavior but strongly endorsed authoritarian educational goals. Interestingly, Italy (and to some degree Spain) had moderate values on both dimensions and appeared to be more similar to the Anglo-Saxon countries than to their Southern European neighbors.

It is beyond the scope of this chapter to explain these results in more detail (e.g., Why is fair-share behavior so much lower in Finland than in most other Scandinavian countries?). In the present study, we

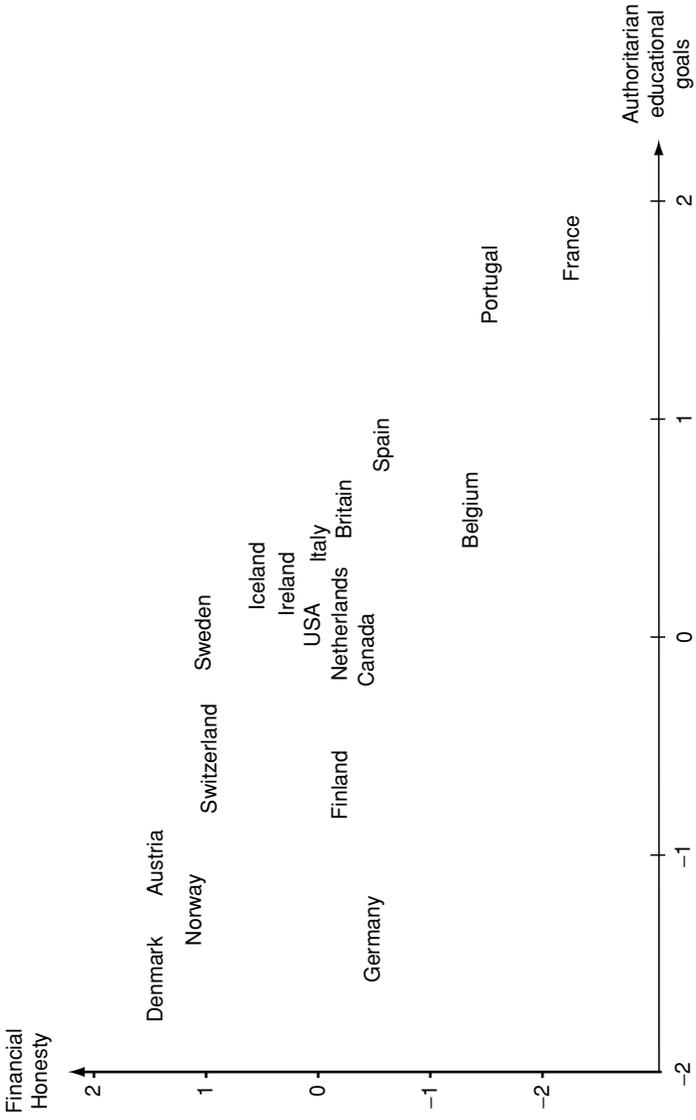


FIGURE 12.1. Authoritarian educational goals and financial honesty

were mostly interested in the general relationship between authoritarian educational goals and fair-share behavior. In sum, our hypothesis that these two dimensions are negatively related to each other was clearly confirmed.

To test the robustness of the relationship between authoritarian educational goals and fair-share behavior, a regression analysis was run in which a number of other potential predictors of fair-share behavior were controlled for:

*Economic prosperity.* As Fetchenhauer and Van der Vegt (2001) have shown, there is a weak but significant positive correlation between the economic prosperity of a country and the fair-share behavior of its citizens (a cynic might argue that inhabitants of rich countries can more easily afford to be honest as they already have enough money). As a measure of a country's economic prosperity, we used gross domestic product per capita (World Bank, 1993).

*Economic inequality.* The degree of economic inequality in a country (i.e., the degree to which the richer have more money than the poor) can be regarded as a measure of the grade of relative deprivation that is experienced by the poor people in the country. Feeling deprived of resources might make people willing to gain financial resources by illegitimate means (e.g., by being dishonest in financial affairs). The Gini-index was used as a measurement of income inequality in the different countries. Estimates of the Gini-index were taken from a large dataset made available by the United Nations University (2000).

*Level of urbanization.* A large number of studies show that people in rural areas are more helpful and more often act in a prosocial fashion than people in urban areas (for a summary, see Bierhoff, 2002). Measures of urbanization were derived from Taylor and Jodice (1983). The results of this regression analysis showed that the only significant predictor of fair-share behavior was the degree of authoritarian educational goals ( $a = -.74$ ). Neither economic prosperity (gross national product) nor economic inequality (the Gini index) nor level of urbanization influenced the average fair-share behavior of a country's citizens.

## Summary and Outlook

We analyzed cross-national differences in one kind of solidary behavior: fair-share behavior. We showed that cross-country differences in fair-share behavior are negatively related to the degree to which a country's inhabitants adhere to authoritarian educational goals. This relationship was robust and substantial even when we controlled for a number of other potential determinants of fair-share behavior (economic prosperity, economic inequality, and level of urbanization).

Thus, Hoffman's hypothesis that power assertion and punishment are unsuccessful methods of making children internalize social norms was empirically confirmed. This is the more noteworthy as Hoffman (2000) developed his theory mainly as a developmental psychologist and never intended to use it for the prediction of cross-cultural differences in norm internalization or prosocial behavior.

Unfortunately, the WVS does not provide good indicators of whether people adhere to an educational style that Hoffman would describe as "induction." However, although there were no direct indicators of the use of inductive methods in educating children, two educational goals directly measured the importance of prosocial behavior of children: "responsibility" and "unselfishness." Neither of these correlated with fair-share behavior. One possible reason for this result is that every culture educates children in prosocial values (Sober and Wilson, 1998). However, according to Hoffman's theory, the degree to which people really act "unselfishly" and "responsibly" depends not on whether they have been told they should do so but on the way these values have been taught to them.

Our findings show that authoritarian educational goals are related to a general patriarchal cultural background. People in countries with a Catholic confessional history, with rather unstable democracies, and with a low percentage of women in parliament had much more authoritarian educational goals than people in countries that are mainly Protestant, have been democracies for a very long time, and have a high percentage of women in parliament. Thus, the way people are taught to follow rules of fairness and solidarity in a given country is deeply rooted in its cultural history. For example, whether countries are mainly Catholic or Protestant has been rather stable for centuries and, as Hofstede (1998) has shown, is related to whether and how long the country was part of the Roman Empire.

These facts point to a central problem unique to cross-cultural research: the problem of disentangling mere correlations based on a limited number of countries from real causal analyses. Naturally, cross-national analyses such as those conducted in the present study can never prove any kind of causality, as is possible in laboratory experiments. Nonetheless, the strength of the relationships that we found shows that they can hardly be interpreted as chance.

The findings of the present analysis indicate the importance of educational goals as determinants of fair-share behavior. However, as was outlined above, fair-share behavior is only one example of solidary behavior in the absence of external sanctions.

Future researchers should investigate in more detail how a country's educational values and its history determine whether people habitually apply a gain frame or a solidarity frame when they have the choice between acting to their own personal advantage or following the rules of fairness and honesty.

## Appendix: Values for Variables and Scales Used with Regard to 18 Western Industrialized Countries

Country	Fair-share behavior <sup>1</sup>	Authoritarian educational goals <sup>2</sup>	Age of democracy <sup>3</sup>	Confessional tradition <sup>4</sup>	Percentage of women in parliament <sup>5</sup>
Austria	1.43	-0.92	2	3	11.50
Belgium	-1.22	0.63	3	3	7.50
Britain	-0.20	0.77	3	1	6.30
Canada	-0.41	-0.16	3	2	9.60
Denmark	1.52	-1.76	3	1	29.10
Finland	-0.11	-0.74	3	1	31.50
France	-2.15	1.82	1	3	6.40
Germany	-0.43	-1.41	2	2	15.40
Iceland	0.51	0.29	3	1	20.60
Ireland	0.24	0.27	3	3	8.40
Italy	0.05	0.41	2	3	12.90
Netherlands	-0.23	-0.06	3	1	20.00
Norway	1.07	-1.29	3	1	34.40
Portugal	-1.42	1.74	1	3	7.60
Spain	-0.73	0.93	1	3	6.40
Sweden	1.07	-0.09	3	1	28.50
Switzerland	0.97	-0.55	3	1	14.00
United States	0.03	0.12	3	2	5.30

<sup>1</sup> z-standardized values (to increase the scale's reliability, the values of the WVS from 1981 and 1990 were collapsed if available)

<sup>2</sup> z-standardized values

<sup>3</sup> 1 = low (less than 55 years); 2 = medium (since World War II); 3 = high (at least since World War I)

<sup>4</sup> 1 = large percentage of Protestants; 2 = mixed; 3 = large percentage of Catholics

<sup>5</sup> Percentage of women in parliament in 1990

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