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Solidarity and Social Law

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Abstract

Even though social solidarity has been institutionalized by the modern state through social assistance and social insurance systems, it is still present in interpersonal relations between citizens, who are often willing to help others who suffer from social risks. Solidary behavior and prosocial individual preferences persist in modern societies and interact with the social assistance and social insurance systems in different ways, shaping the content, size, and type of benefits provided by the state to those in need. This article investigates the defining elements of solidary behavior, presents the existing empirical evidence concerning their impact on human behavior, and thereby distinguishes solidary behavior from altruism, reciprocity, and aversion to inequality. It further presents reasons that depart from behavioral tendencies and prosocial individual preferences of citizens for the institutionalization of solidarity, for its mandatory character, and for its expansive reach. Finally, it concludes with an inquiry into the character and form of the relationship that exists between solidary behavior and social insurance law.

A. Introduction

Solidarity is a fundamental principle in social insurance law.[1] It is in part recognized as a constitutional principle in Germany[2] and recurrently invoked as a justification for the creation, maintenance, and expansion of social insurance

1 On solidarity as a legal concept, *see* Volkmann, *Solidarität – Programm und Prinzip der Verfassung*, Mohr Siebeck: Tübingen, 1998, pp. 52 et seq. On its relation to social law, *see* Kingreen, *Sozialstaatsprinzip im europäischen Verfassungsverbund*, Mohr Siebeck: Tübingen, 2003, pp. 253 et seq.; Ruland, Solidarität, *Neue Juristische Wochenschrift*, vol. 48, 2002, p. 3518.

2 *See* Volkmann, *supra* note 1, pp. 217 et seq., and Becker, Solidarity, Financing and Personal Coverage, *The Japanese Journal of Social Security Policy*, vol. 6, 2007, p. 1.

systems in several different European countries.[3] Solidarity manifests itself in an »interpersonal redistribution of risk-based burdens within the compulsorily insured community«, and is »the fundamental requirement for the inclusion of certain persons in specific situations of need and subject to specific risks«.[4] The importance of legal solidarity increased with the expansion of the welfare state throughout the 20th century, and its impact on the rights and duties of the citizens is remarkable nowadays.

Still, social solidarity existed in informal arrangements within the family, tribe, guild, or other forms of community long before it was institutionalized by the modern state, became legally compulsory, and increased its reach to include most of the citizens. Citizens in need do not have to rely on voluntary help from their fellows, but have instead a formal claim to a benefit that is provided by the state. Solidary behavior, however, clearly did not vanish after this evolution. It is still present in interpersonal relations, observed in people's willingness to help those who suffer from certain events, and therefore interacts, in different ways, with social assistance and social insurance.

There is, in fact, substantial evidence that many people show solidarity even when this imposes a cost on themselves and is not the action that maximizes the person's material gains. Many people care for the well-being of others, through different channels and for different reasons, and there have been remarkable recent advances in understanding the components of individual preferences that go beyond their own material well-being, and that are fundamental for solidary behavior. This type of individual preferences must, in democratic systems, shape the evolution of the welfare state as well as the contours, size and content of the social benefits it provides through social assistance and social insurance.

This article investigates, firstly, the defining elements of solidary behavior, its presence in the current models of individual preferences, and the existing evidence of their impact on human behavior, thereby distinguishing solidarity from altruism, reciprocity, and inequality-aversion. Secondly, it presents reasons that depart from behavioral tendencies and individual preferences of citizens for the institutionalization of solidarity, for its mandatory character, as well as for its expansive reach. In the end, the article studies the interaction between solidary behavior and social assistance and social insurance law, and inquires into their potentially substitutive or complementary interaction.

3 Including Switzerland, Austria, Italy, Spain, France, Belgium, and the Netherlands. *Cf.* Becker, *supra* note 2, p. 1. *See also* Becker, Verfassungsrechtliche Vorgaben für Sozialversicherungsreformen, *Zeitschrift für die gesamte Versicherungswissenschaft*, vol. 99, 2010, p. 600, fn. 85 (»Der Charakter der Sozialversicherung beruhe auf dem Prinzip der Solidarität und des sozialen Ausgleichs«).

4 Becker, *supra* note 2, p. 1.

B. Solidary Behavior

Solidarity can be defined, in behavioral terms, as the »willingness to help people in need who are similar to oneself but victims of outside influences such as unforeseen illness, natural catastrophes, etc.«[5] It therefore involves a constitutive element of altruism, namely the (i) willingness to help people in need, but also an element that restricts this type of behavior to a certain community of people, namely those (ii) who are similar to oneself, as well as another element that restricts solidarity to certain situations, namely those in which the other is (iii) victim of outside influences such as unforeseen illness and natural catastrophes, as mentioned by Selten and Ockenfels, and which can certainly include old age, unemployment, invalidity, and workplace accidents.

I. Willingness to Help People in Need

While solidarity is different from, or perhaps only a special type of, altruism, it is clear that it involves care for the other. An act is altruistic if it is motivated by a desire to help and benefit someone other than oneself for that other individual's sake.[6] There are, for sure, visible signs that people often behave altruistically, be it by donating money to charity, engaging in charitable work, or avoiding exposing others to harm, but these acts might not necessarily be motivated by a desire to help and benefit the other. Some individuals might donate money because it is customary for those with substantial fortunes to do so. Others might be more interested in the reputational gains that charitable work brings for themselves within the community in which they live.

There is, however, substantial empirical evidence that reveals that some individuals behave altruistically and are in fact motivated by a desire to help others. This evidence comes mostly from dictator games.[7] In this game, participants in a

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5 Selten & Ockenfels, An Experimental Solidarity Game, *Journal of Economic Behavior & Organization*, vol. 34, 1998, p. 518.

6 *See* Kraut, Altruism, in *The Stanford Encyclopedia of Philosophy*, Edward Zalta (ed.), 2020.

7 Historically, the dictator game builds upon the ultimatum game, which was designed by Werner Güth and co-authors. *See* Güth, Schmittberger, & Schwarze, An Experimental Analysis of Ultimatum Bargaining, *Journal of Economic Behavior & Organization*, vol. 3, 1982. In an ultimatum game, individuals are matched in pairs, the first one receives an endowment and can transfer any share of that endowment to the second person. The second person can either accept or reject the proposed transfer. If she accepts it, then each of them earns the corresponding amount; if she rejects it, both persons earn nothing. The equilibrium of the game involves a minimal transfer by the first person, who must anticipate that, for the second one, any minimal amount is better than nothing, and that she will surely accept any positive transfer. In this manner, the first person can keep most of the endowment for herself, maximizing her individual gains. In reality, most people in the role of the first person do not transfer a minimal amount, but rather on average 40 % of the endowment they receive. This act, however, might be motivated by altruism (and other prosocial motives) or by the fear that the second person will reject the transfer if she perceives it as unfair, leading the first person to earn nothing. In fact, rejection rates are very high, and most people in the role of the second person reject very low offers, leading to zero gains for both. A few years after this game was designed and implemented, Kahneman, Knetsch, and Thaler removed the decision of the second person from the game, thereby eliminating the fear of rejection as a reason for transferring positive amounts in an attempt to isolate altruism and prosocial motives as the reason for any positive transfer. *See* Kahneman, Knetsch, & Thaler, Fairness and the Assumptions of Economics, *Journal of Business*, vol. 59, 1986. In subsequent years, the current format of the dictator game described above was formalized by Forsythe, Horowitz, Savin, & Sefton, Fairness in Simple Bargaining Experiments, *Games and Economic Behavior*, vol. 6, 1994.

laboratory experiment are randomly matched in pairs and one of them (the »dictator«) receives a certain monetary endowment (usually 10 Euros) and can make only one decision. She can keep all the money for herself or she can share any fraction of that amount with the other person she was matched with (»the recipient«). Since the recipient receives no endowment, she earns nothing if the dictator chooses the action that maximizes her own material gains (the strictly rational decision to keep everything for oneself). The interaction is anonymous and does not occur face-to-face, but through computer terminals, thereby minimizing the effect of several other factors that could lead one to behave altruistically in order to achieve gains for oneself through, for example, building a reputation of being nice.

Participants transfer, on average, 28 % of the amount they receive.[8] This, however, does not mean that everybody behaves partially altruistically. Quite on the contrary, around 40 % of the people do not transfer anything at all, behaving purely selfishly. Roughly 10 % of the people transfer either 10 %, 20 %, or 30 % of the endowment they receive, thereby displaying some degree of altruism. Only 15 % choose to divide the endowment equally with the recipient, and a very small fraction of no more than 5 % give everything to the recipient.

Since the recipient is not necessarily a person in need of help, several studies have further investigated the effect of a deserving person in the role of a recipient, or as the potential beneficiary from the altruistic act. Many experiments have investigated this effect by, for instance, replacing the recipient by a charity organization.[9] This reduces the share of participants giving nothing by half (from roughly 40 % to around 20 %) and increases the share of participants giving everything from no more than 5 % to almost 25 %.[10]

The most important evidence, for the specific character of solidarity, is the effect of social distance on giving. Experiments have manipulated the degree of social distance between the dictator and the recipient, substituting the stranger in the role of the recipient for someone who is a member of a group to which the dictator belongs. In a network of college students, people give more to a friend than to a stranger,[11] and this does not depend on the fact that the person knew the identity of the recipient: people give more to an unknown friend than to a stranger.[12] Lastly, altruism decreases with social distance, as people give more to a friend than to a friend of a friend, and more to a friend of a friend than to a friend of a friend of a friend, an effect called the »inverse distance law of giving«.[13]

Experimental evidence reveals, in sum, that while many people are selfish, some are not, and often act in ways that impose a cost on themselves in order to benefit somebody else. This type of behavior is more common and pronounced

8 *Cf.* Engel, Dictator Games: A Meta Study, *Experimental Economics*, vol. 14, 2011.
9 *See, e. g.*, Eckel & Grossman, Altruism in Anonymous Dictator Games, *Games and Economic Behavior*, vol. 16, 1996.
10 *Cf.* Engel, *supra* note 8.
11 Leider, Rosenblat, Möbius, & Do, What do We Expect from Our Friends?, *Journal of the European Economic Association*, vol. 8, 2010.
12 Brañas-Garza et al., Altruism and Social Integration, *Games and Economic Behavior*, vol. 69, 2010.
13 Goeree et al., The 1/d Law of Giving, *American Economic Journal: Microeconomics*, vol. 2, 2010.

when the potential beneficiary is in need and deserves help, as well as when she is closer to the giving person and belongs to a group or community which the former also belongs to. This last finding leads to a first element that distinguishes altruistic from solidary behavior.

II. Who are Similar to Oneself

In fact, even in philosophical accounts of solidarity, solidarity is distinct from altruism, firstly, because one is not solidary with just everybody, but rather only with other members of a particular group or community to which the person believes she belongs.[14] Solidarity is expected from those connected with each other by something they share, such as a common history, geography, interest, problem, or feeling, and this particularistic dimension is inherent to solidarity.[15] As advanced by Rorty, »[o]ur sense of solidarity is strongest when those with whom solidarity is expressed are thought of as ›one of us‹, where ›us‹ means something smaller and more local than the human race. That is why ›because she is a human being‹ is a weak, unconvincing explanation of a generous action«.[16]

In its modern version, the concept of solidarity flourished with the socialist movement, and stressed a call for unity among individuals belonging to the same group, community, or class (»workers of the world, unite!«). Engels, in fact, held »that the simple feeling of solidarity, based on an insight into the sameness of the class position, is sufficient in order to create amongst all of the laborers of all countries and languages one large and cohesive proletariat party«.[17] In their quest for a common goal, members of certain groups provide to each other mutual support, and this could be observed in the civil rights movement in the USA in the 50s and 60s, in the civil movements in former communist countries of Eastern Europe in the 80s (»*Solidarność*«), and in the current »Me Too« or »Black Lives Matter« movements. These movements never aimed at helping whoever is in need. Their members share a common ground and a just goal (e. g., equal rights for blacks and whites, men and women, etc.) that they seek to realize with the help of solidary actions from other individuals.

Solidarity involves the perspective of reciprocity, and some degree of equality exists between the involved individuals, creating a mutual right to expect help when help might be needed.[18] As mentioned by Selten and Ockenfels, »[t]o some extent solidarity is similar to reciprocity, a motivation which urges you to give something in exchange for something you have received, even if you are not compelled to give anything.«[19] Apart from the fact that solidarity is built upon a

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14 *Cf.* Bayertz, Four Uses of Solidarity, in *Solidarity – Philosophical Studies in Contemporary Culture*, Bayertz (ed.), 1999, p. 4.

15 *Id.*, p. 8, explaining how universalism is required for negative obligations to refrain from acting in a certain manner (for example stealing or lying). Solidarity, however, imposes positive obligations to act, and realistic ethics cannot ignore that humans have limits in their sympathy and goodwill, and nobody can be realistically obliged to behave altruistically towards all human beings.

16 Rorty, *Contingency, Irony, and Solidarity*, Cambridge University Press: Cambridge, 1989, p. 191.

17 Engels, Zur Geschichte des Bundes der Kommunisten, in Marx and Engels, *Collected Works*, 1885, p. 223.

18 *See* Bayertz, *supra* note 14, p. 19.

19 Selten & Ockenfels, *supra* note 5, p. 518.

community of individuals subject to common risks that can affect anyone, solidary acts are not motivated by past nice actions one might have received. From a normative perspective, reciprocity requires us to treat kindly those who treated us kindly, and perhaps also to treat unkindly those who treated us unkindly.[20] Solidary behavior, in contrast, does not require any past kind action, and might never be reciprocated if one does not come to be in need in the future. It is instead based on an expectation that, if in the future one were in need of help, one would receive help from others in the community, and perhaps not from precisely those whom one had helped in the past.

Moreover, research from psychology has shown how individuals who share a trivial social category treat ingroup members more favorably than outgroups, at times discriminating against members of another group.[21] Experiments that implement the so-called minimum group paradigm have shown this effect. Participants are randomly told, at the beginning of the experiment, that they either belong to a completely artificial (»minimal«) group called »A« or »B«.[22] Then, they have the opportunity to choose how to distribute a certain amount of money between two other participants, one from their own group and the other one from the other group. Participants, in fact, allocate more money to the participant who share this minimal group characteristic than to the other one, and the sole reason for this type of behavior is the attachment to the group one perceives to belong to.[23]

III. Who are Victims of Unforeseen Events

While some people are, to some extent, altruists and care for the well-being of others, other people are even more altruistic when the other deserves or needs help, as well as when the other belongs to the same group or community one perceives oneself to belong to. This type of behavioral motivation characterizes social assistance and welfare programs that provide income to the poor or to those in need. Social insurance, on the other hand, does not specifically aim at providing relief to the poor, but rather to those who are affected by certain situations such as illness, workplace accidents, unemployment, old-age, or maternity.[24]

In fact, there is no need for the state to establish and administer a social insurance system to redistribute money from the rich to the poor, since this is best implemented through a simple progressive tax system. Many authors have argued that income taxes plus transfer payments to deserving individuals, albeit apt to distort incentives to work, are more efficient than other legal instruments, includ-

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20 *See* Gouldner, The Norm of Reciprocity: A Preliminary Statement, *American Sociological Review*, vol. 25, 1960.

21 The original finding is in Tajfel, Billig, Bundy, & Flament, Social Categorization and Intergroup Behaviour, *European Journal of Social Psychology*, vol. 1, 1971.

22 In many experiments, to avoid a potential effect that group A is somehow perceived better than group B due to alphabetical order, groups are often termed »blue« and »green«.

23 *See* Chen & Li, Group Identity and Social Preferences, *American Economic Review*, vol. 99, 2009.

24 Surely, even means-tested policies can be viewed as a way of providing protection against the *residual* risk of income loss that social insurance policies do not cover. Social insurance, however, goes well beyond the provision of coverage against, for instance, threats to the maintenance of the existential minimum, and, at times, even attempts to provide coverage against any negative income shock, and aims at the maintenance of the income level one had before, for instance, unemployment or a workplace accident.

ing social insurance law, to redistribute income because any other instrument would create the same disincentives to work that income tax creates *plus* inefficiency in the regulated area.[25] Why should the state enact a massive and complex system including old-age insurance, unemployment insurance, and workplace accident insurance, among others, with extremely high administrative costs and all the inefficiencies they create in labor and insurance markets to achieve the goal of reducing income inequality if it has at its disposal the possibility to simply take money from the rich and give it to the poor?

The type of redistribution that characterizes social insurance law is redistribution from the lucky to the unlucky, or, being more precise, from those who do not suffer negative income shocks from covered events to those who suffer such shocks. As noted by Ulrich Becker, this type of security against social risks involves not only bad outcomes such as illness, invalidity, and unemployment, but also good outcomes such as old-age and maternity.[26] While public health insurance redistributes income from those blessed with a good health to those who are not, old-age insurance redistributes income from those who are not blessed with a long life to those who are, but who must then provide for their subsistence while being less capable of working when at old age.

Selten and Ockenfels considered the impact of the risk of a negative income shock and investigated solidary behavior in the so-called solidarity game: three participants can earn each a certain amount (at the time of the study, 10 DM) with a high probability or earn nothing with a low probability.[27] Before the risk materializes, they are asked how much they are willing to transfer, if they by chance are selected to earn the 10 DM, to those who by chance are selected to earn nothing. Results reveal that, remarkably, almost 80 % of the participants choose to transfer positive amounts. On average, people transferred around 2.5 DM to a single loser, and 1.5 DM to each of the two other participants if they both earned, by chance, nothing. If, in a group of three people, only one is victim of a negative shock, then this person can expect to earn 5 DM in total, with the other two members transferring 2.5 DM each to this person while keeping 7.5 DM for themselves, in a very equitable final distribution.

These results show that solidarity is perhaps more widespread than mere altruism, as 80 % of the people made positive transfers in this game involving risk while around 50 % of the people make positive transfers in the dictator game that involves no risk of income loss. Two interesting questions, however, remain in need of further studies. Firstly, participants in the solidarity game were not members of a particular group or community, and it can only be hypothesized that, in this case, their willingness to help victims of risk might even be higher. Second, the risk was exogenous and participants could not control it nor avoid it, which is, in fact, the most common type of risk covered by modern social insurance

25 *See* Kaplow & Shavell, Why the Legal System is Less Efficient than the Income Tax in Redistributing Income, *Journal of Legal Studies*, vol. 23, 1994; *id.*, Should Legal Rules Favor the Poor? Clarifying the Role of Legal Rules and the Income Tax in Redistributing Income, *Journal of Legal Studies*, vol. 29, 2000.

26 *Cf.* Becker, Systematisierung des Sozialrechts: Ansätze und Bedeutung, *Przegląd Prawa i Administracji*, vol. 109, 2017, p. 27.

27 Selten & Ockenfels, *supra* note 5.

systems, but people's willingness to help those who deliberately did not choose or pay to avoid a risk they could mitigate is expected to be lower.

C. Institutionalized Solidarity

Within the modern state, individuals living in the same geographical area and sharing a common history, language, and culture constitute a society and population. There is, therefore, the common ground and group membership that allows solidarity to expand from narrower and smaller groups such as family, clan, guild, or another up to the state. The solidary behavior that existed, and the related informal obligations and rights are now institutionalized. The citizen does not only have the expectation that other members will come to help in case of need, but a legal right to a benefit that is now provided by the state, which offers protection and security for the citizens against the impacts of covered social risks.

I. Why Institutional

In democratic systems, the shape, size, and content of the benefits that the state provides must reflect, to some extent, the preferences of the majority of voters or, more precisely, those of the median voter.[28] Political sciences have long held that income inequality leads to voter's support for welfare policies that provide help to those in need.[29] Since competition between political parties leads them to propose and adopt the level of welfare spending preferred by the median voter, the greater this level is for the median voter, the greater the implemented level of welfare expenses in a country. The majority of voters, who earn below-average income, will support more redistribution the higher income inequality is. This, however, has its own limit, as voters will support redistribution only up to the point in which their marginal gain from redistribution is equal to the marginal cost they must pay for it through the payment of taxes. This might also have a secondary – and debatable – positive side effect: if redistributive policies reduce economic growth, their effect of reducing inequality reduces the public demand for those policies, and reducing inequality therefore can promote economic growth in the long run through the reduction of the level of spending aimed at reducing inequality.[30]

However, welfare policies are often not aimed at redistributing money from the rich to the poor, but rather at providing insurance against certain types of risks, especially against those that markets fail to cover efficiently. Therefore, and considering only strictly rational voters, their support for welfare policies depends not only on their income, and on the distribution of income in a society, but also on their degree of exposure to risk. Voters who are most exposed to risks of, for

28 On the median voter theorem, *see* Downs, *An Economic Theory of Democracy*, Harper Collins: New York, 1957.

29 Romer, Individual Welfare, Majority Voting, and the Properties of a Linear Income Tax, *Journal of Public Economics*, vol. 4, 1975; Roberts, Voting over Income Tax Schedules, *Journal of Public Economics*, vol. 8, 1977; Meltzer & Scott, A Rational Theory of the Size of Government, *Journal of Political Economy*, vol. 89, 1981.

30 Alesina & Rodrik, Distributive Politics and Economic Growth, *Quarterly Journal of Economics*, vol. 109, 1994; Persson & Tabellini, Is Inequality Harmful for Growth?, *American Economic Review*, vol. 84, 1994.

instance, the negative consequences of income loss due to unemployment will favor not only redistributive policies, but also and more public insurance.

Moreover, their support for public insurance depends on who are the beneficiaries of the benefits, and how they are designed. Many people believe that public provision of insurance against risks that one cannot control for, such as general unemployment caused by economic or health crises, is desirable, but people might not support public insurance against events that beneficiaries could control and avoid. Their willingness to support policies that redistribute wealth between the citizens depends also on their beliefs regarding the relative importance of luck and effort in determining individual earnings.[31]

Experiments have analyzed the role of choice and the individual deliberate decision to take risks on others' willingness to help, or to redistribute money to those who, as the result of their risky choices, suffer a negative income shock. In a recent experiment, participants could choose between a risky choice and a safe one, were then matched into pairs, and only afterwards did risk materialize, with those who took the risky choice earning higher amounts than those who took the safe choice if the risk favored them, but also earning less if the risk disfavored them.[32] In each pair, the earnings of both parties were combined, and a third party could, after observing the realization of risk and the choices of each person, redistribute money between the two. If third parties took the ex-ante view (the choice to take risk), then they did not have a reason to redistribute eventual gains and losses. In contrast, if they took the ex-post view (the realized outcomes of the risk), then they did have a reason for eliminating income inequalities from risky decisions. While most neutral third parties simply distributed the combined amount earned by both persons equally, many did not do so when one of them willingly took risks while the other one did not.[33] Their support for public insurance against risks one can control can only be lower than for risks one cannot control.

In sum, the size of the welfare state can increase either because of voter's preferences to reduce poverty and income inequality or because of their preferences to reduce the burden of the negative income shocks caused by risks that citizens cannot control or mitigate. While the former would lead to higher marginal income tax rates, and higher transfers to the poor, independent of the cause of their low income, the latter would lead to higher levels of public insurance, and more generous benefits for the unemployed, invalid, old, or victims of accidents.

II. Why Compulsory

With the institutionalization of solidarity within the modern state, solidarity becomes not only a right, but also a duty. Citizens' demands for public insurance and assistance lead to the creation of legal rights to public benefits when

31 Piketty, Social Mobility and Redistributive Politics, *Quarterly Journal of Economics*, vol. 110, 1995.

32 Cappelen, Konow, Sørensen, & Tungodden, Just Luck: An Experimental Study of Risk Taking and Fairness, *American Economic Review*, vol. 103, 2013.

33 *See, further*, Mollerstrom & Sørensen, Luck, Choice and Responsibility – An Experimental Study of Fairness Views, *Journal of Public Economics*, vol. 131, 2015.

they are needed as well as to a legal duty to support those in need. This duty, however, is not to help those in need directly, but indirectly, through the payment of taxes and contributions to the state, in lieu of the members of the community who used to voluntarily provide help and show solidarity. But if informal solidary systems had persisted and survived for centuries, with members of families, clans, tribes, or guilds voluntarily providing support to those who come to need it when faced with certain events, why must the state coerce individuals to contribute?

A fundamental reason lies in the pattern of prosocial behavior that can be observed in public good games. In this game, members of a group can achieve maximal gains if they all contribute to the public good, but the strictly dominant strategy for each individual, in the game, is not to contribute anything, let the others do it, and thereby not bear any cost while still enjoying the same benefits of the public good that others who contributed to it also enjoy (free-riding behavior). In contrast with this stark prediction from strict rational choice models, experimental evidence from repeated voluntary public good games reveal that the members of the group usually start the game contributing positive amounts to the public good, perhaps around 40 % of everything they can contribute, but also decrease their contributions over time as the game is repeated.[34]

The most accepted explanation for this phenomenon is that many people are conditional cooperators.[35] They understand the social dilemma and are willing to overcome the strictly dominant strategy to free ride, but as soon as they observe that not everybody behaves in this prosocial manner, and that some other individuals do not contribute, they decrease their contributions to the public good. Others observe this reduction by some of those who were initially behaving in a prosocial manner, but not anymore, and, in their turn, also reduce their own contributions, such that after a few repetitions, no one is contributing anymore, and voluntary provision of the public good vanishes.

Informal solidary systems might well suffer from this same phenomenon. Generally, people might be willing to be solidary when solidary actions are required. Yet, when some individuals refuse to provide these acts, and those who would be willing to be solidary happen to observe this type of free-riding and antisocial behavior, the latter will also be inclined to refrain from costly solidary acts in the future. Over time, solidarity will vanish. But how do those systems persist for centuries?

Informal enforcement mechanisms are necessary for this type of prosocial behavior to persist and prosper. In a well-known experiment, Fehr and Gächter allowed the members of the group to punish, at a personal cost for themselves,

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34 For a review of existing evidence on individual behavior in public good games, *see* Zelmer, Linear Public Goods Experiments: A Meta-Analysis, *Experimental Economics*, vol. 6, 2003; Balliet, Communication and Cooperation in Social Dilemmas: A Meta-Analytic Review, *Journal of Conflict Resolution*, vol. 54, 2010.

35 *See* Fischbacher, Gächter, & Fehr, Are People Conditionally Cooperative? Evidence from a Public Goods Experiment, *Economics Letters*, vol. 71, 2001; Frey & Meier, Social Comparisons and Pro-Social Behavior: Testing Conditional Cooperation in a Field Experiment, *American Economic Review*, vol. 94, 2004.

those who do not contribute in a voluntary public good game.[36] Over time, when a member continues to not contribute, others invest their own resources to punish the free-rider, and this greatly discourages that type of behavior. In effect, cooperation can, under this type of decentralized enforcement system, not only persist over time, but also at very high levels.[37]

However, group size is a factor that might hinder the effectiveness of such decentralized enforcement mechanisms. While members of the group might be capable of observing and monitoring those who free-ride in small groups or communities, this might not be possible with thousands or millions of individuals. Evidence from experiments reveal that group size per se does not lead to much lower contributions because decentralized punishment also occurs in large groups, but hindrances to monitoring can greatly reduce voluntary contributions and social cooperation.[38] These are, for sure, much more pronounced in vast communities such as those including all citizens of a state than in close-knit smaller communities.

III. Why Universal?

While a compulsory system is required for extremely large groups, why do modern social insurance systems aim at including most – if not all – individuals in the system? Surely, social insurance fails to include everyone. For a long time, those who were active in the informal sector did not have access to any benefit, nor had to contribute to the system. Still, the observed tendency of those systems is to grow and to attempt, in one way or another, to include everybody. In most of them, the evolution has been from a small system for only certain types of workers (miners, certain public employees, military personnel) to a system encompassing all formally employed workers and then attempting to include also self-employed individuals, housewives, students who depend on scholarships, etc.

One reason for this expansion, which should be reflected in the preferences of the voters, is inequality-aversion. Many people derive disutility from unequal distributions and are willing to incur personal costs to reduce inequalities in earnings.[39] In societies with high levels of inequality in the distribution of income, this type of individual preferences, recurrently observed in economic experiments, must drive voters' demands for policies that redistribute a share of the earnings of those with higher incomes to those earning below-average wages. Social assis-

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36 Fehr & Gächter, Cooperation and Punishment in Public Goods Experiments, *American Economic Review*, vol. 90, 2000; *id.*, Altruistic Punishment in Humans, *Nature*, vol. 415, 2002. For a review of the subsequent evidence, *see* Chaudhuri, Sustaining Cooperation in Laboratory Public Goods Experiments: A Selective Survey of the Literature, *Experimental Economics*, vol. 14, 2011.

37 Fehr & Gächter, Cooperation and Punishment in Public Goods Experiments, *supra* note 36.

38 *Cf.* Carpenter, Punishing Free-Riders: How Group Size Affects Mutual Monitoring and the Provision of Public Goods, *Games and Economic Behavior*, vol. 60, 2007.

39 *See* Fehr & Schmidt, A Theory of Fairness, Competition, and Cooperation, *Quarterly Journal of Economics*, vol. 114, 1999; Bolton & Ockenfels, ERC: A Theory of Equity, Reciprocity, and Competition, *American Economic Review*, vol. 90, 2000.

tance is surely apt to reduce this type of inequality, but transfers to the poor are not enough to undo inequalities arising from negative income shocks.

Consider, for instance, how social assistance and social insurance benefits have a different impact on a person who loses her job that used to provide her, for example, with 3,000 EUR per month, corresponding to the average income in that country. Without income after losing the job, if she were entitled only to social assistance, her earnings would be reduced to the payments she would receive from social assistance, perhaps 1,000 EUR, far from what she was receiving before, and 2,000 EUR below the average. While providing security against extreme poverty, and perhaps being able to guarantee her existential minimum, social assistance would not solve the inequality arising from the situation. She would still have an income way below the average in the society. Social insurance, in contrast, is well apt to cover against this, and to guarantee the maintenance of the income and of the distribution of income in the society that existed before the unemployment occurred.

D. Solidary Behavior and Social Law

With the emergence and growth, both in size and importance, of social assistance and social insurance, the question that emerges is the relation between this evolution and the observed solidary behavior between the citizens. From a historical perspective, what is cause and what is consequence is an open question. Did the Industrial Revolution and the more individualistic society that emerged cause the decrease in more traditional forms of mutual help and solidarity, and, in their absence, did the modern state take their role and institutionalize it, *or* did the institutionalization of solidarity by the state crowd out interpersonal solidary behavior and thereby reduce the role of more traditional forms of solidarity? Little is known to be able to answer this question. Still, and irrespective of historical causality, one can inquire how they interact today, given observed behavioral patterns in people, and the shape and contours of institutional solidarity.

Policies that redistribute income to the poor must have an effect on individual altruism. A progressive tax income system, together with transfers for those in need, must reduce, firstly, poverty, and thereby the need for altruistic acts. Moreover, a reduction of poverty also reduces inequality between the citizens, thereby reducing the need for the rich who are averse to inequality to willingly transfer income to the fewer, and under social assistance benefits less poor individuals. The same effects are expected with respect to social insurance. The system reduces the need for solidary acts on the part of citizens since the benefits provided by the state often relieve victims from the burdens of the covered risks. By maintaining, to some extent, the level of income that had been in place before the respective event, a certain degree of equality is maintained, and there are, again, fewer motives, including inequality-aversion, for individuals to behave in a solidary way.

Several studies indicate that once private, formal insurance is introduced, it crowds out solidary behavior, and it may well lead to a situation in which total

risk coverage in the community might even decrease. Insurance payouts often take the place of informal transfers,[40] and reduce people's willingness to provide informal support.[41] Can we also conclude that social insurance has a negative and undesirable effect on solidary behavior? This is probably not the right question to ask, since social insurance often makes solidary behavior unnecessary, as many risks are covered. But does social insurance crowd out solidary behavior in cases where social insurance cannot fully cover the risk, and where there is still need for solidary behavior?

Consider the case of an old age person. If unable to work, then she is entitled to a pension that, to some extent, maintains her income. If she has health problems, then health insurance covers that risk, but not necessarily perfectly. The person, if suffering from, say, depression, might well have access to adequate health care, but this cannot ever perfectly restore her well-being unless other individuals are solidary and relate to this person, incurring costs in, for example, visiting the person, talking with her, going for a walk with her, etc. This residual risk requires solidary behavior. Are people in societies with well-established, functioning social insurance systems less willing to help this person in need?

Without evidence, it is hard to answer the question, as there are competing motives and hypotheses. Since social insurance relieves individuals from having to personally help others whenever necessary, it allows them to have more time for themselves and also to be solidary, and social insurance could thereby increase solidary acts. It, however, might also relieve them from the perceived need to be solidary, since one might feel that, having already provided help through the payment of taxes and contributions, one has already done one's part, with no further need to be solidary. Further empirical evidence is needed to investigate these hypotheses, and to identify the channels through which social assistance and social insurance affect, positively and negatively, interpersonal solidary behavior.

A promising perspective, within social law scholarship, is to study ways through which solidary behavior can *complement* social assistance and social insurance. The law can certainly create incentives for people to show solidarity even in the presence of institutionalized solidarity. Fostering solidarity, through tax incentives or other legal instruments, and not through sanctions upon those who refuse to provide further solidarity, can reduce residual risks that social insurance cannot ever fully cover, maintaining solidary behavior or avoiding erosion thereof, and thereby contributing to the welfare of all involved persons.

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40 Lin, Liu, & Meng, The Crowding-Out Effect of Formal Insurance on Informal Risk Sharing: An Experimental Study, *Games and Economic Behavior*, vol. 86, 2014.

41 Attanasio & Rios-Rull, Consumption Smoothing in Island Economies: Can Public Insurance Reduce Welfare?, *European Economic Review*, vol. 44, 2000.