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## Social Rationality and Weak Solidarity

### *A Coevolutionary Approach to Social Order*

Siegwart Lindenberg

#### Abstract

Social order is a phenomenon that is constantly produced and reproduced by processes that prominently include evolved capacities of human beings. This view sharply contrasts with a view in which social order is the result of a Leviathan or the result of shared values produced by the socialization of children. From the perspective suggested here, the central question of the microfoundations of social order concerns these evolved capacities, which may jointly be referred to as “social rationality”. Part of social rationality and central to this approach is the dynamics of three overarching goals (mindsets) in which cognitive and motivational processes are combined: hedonic, gain, and normative goals. An important part of the dynamics of these goals is that they are often in conflict with one another and that their salience changes with changing social circumstances. This also affects self-regulatory capacities. On the micro level, social order can be seen as being governed by the interaction of (macro and micro) social circumstances and the way they affect the changing salience of overarching goals.

The problem of order is traditionally connected with Hobbes and, in sociology, with the way Parsons criticized Hobbes’s solution. These two authors also inspired this book. However, the traditional discussion of the problem of order in sociology as it is based on this Leviathan (Hobbes) versus normativity (Parsons) dichotomy is highly misleading because it confounds two problems of order: the microfoundational problem of order (what does the human nature look like that enables humans to produce and reproduce social order in their daily relating and behaving when the right conditions are present); and the institutional problem of order (what institutions are necessary to create a sustainable order in society). Of course, the two problems are linked, but neither Hobbes nor Parsons distinguished them. They failed to problematize the



microfoundational problem of order by simply positing a human nature that was based on rationality (in the sense of purposefulness) and a set of preferences (either self-interested preferences or socialized norm-conformity preferences). Both Hobbes and Parsons treated the microfoundational problem of order as if we could leave that to God's creation: God had put humans on this earth as fully developed rational egoists or fully developed rational teachers and learners (socializers of newborn babies and socializees). For both authors one can say that their solutions to the institutional problem of order were more interesting and fruitful than their cavalier treatment of human nature, but these solutions were nonetheless hopelessly confined by these simple views of human nature. In this chapter, I will focus on the microfoundational problem.

If one does not opt for the idea that human beings were created fully developed as they appear today and then left to figure out how to solve their problem of order, the obvious alternative is to take an evolutionary approach. However, there too are various possibilities, some of which have not quite left the approaches to human nature of both Hobbes and Parsons behind: they assume that human beings are and have been rational creatures (somehow) and that evolution consists of the development of preferences, so that there are different types of human beings (egoists and social types) or that there are human beings who have both egoistic and social preferences (Gintis et al. 2003). Others are more strongly focused on the evolutionary development of cognitive and motivational abilities (e.g., Gigerenzer 2001). To me, a more useful approach is one that pays close attention to the complexity of human nature as it developed *together* with various forms of order. Among exponents of this latter approach are those that focus on an interplay between genes and culture pointing to processes of coevolution (Richerson and Boyd 2005). Coevolution is clearly highly relevant for the problem of order. However, because genes and culture are two ways in which important information is transmitted, attention in the literature has been strongly focused on transmission rather than on the micro processes that help create order.

Luckily, there are important evolutionary anthropologists who subscribe to some version of the coevolutionary view but also pay closer attention to the evolutionary development of cognitive and motivational abilities that are necessary for jointly realizing social order (Tomasello et al. 2012; Dunbar 2003). My own approach falls within this tradition but it differs in important ways due to its focus on what I call "social rationality" (see Lindenberg 2013). This approach is characterized by two basic propositions that are essential for the way social order is created and recreated at the micro-level: First, phylogenetically, human rationality in the sense of the capacity to have sophisticated representations, to pursue goals (egoistic goals as well as collective goals) and to self-regulate coevolved with human sociality (i.e., the ability to empathize, cooperate and jointly create collective goods with others). Second, ontogenetically, human rationality *and* sociality are heavily dependent on social conditions, both for their development and, importantly, also for their maintenance.

The important question is how this interweaving of rationality and sociality actually works, how it generates social order at the micro-level and what conditions facilitate or threaten this generative capacity.

#### THE SOCIAL BRAIN AND SOCIAL RATIONALITY

Maybe the most important insight from evolutionary anthropology (especially Dunbar 2003) with regard to the problem of order is that our most advanced brain power (made possible by relatively large frontal lobes) evolved in order to allow individuals to derive adaptive advantages (in terms of one's own survival and reproductions, as well as the reproduction of one's offspring) from living in groups in such a way that the group size could grow and still deliver advantages. In this sense, our brain is a social brain. This is the basis of a long-term development of social rationality.

A larger group can confer more individual adaptive advantages, given that individuals are able to jointly establish and maintain such a group. This ability to jointly form and maintain groups must be seen as having evolved step by step over a long period of time. In humans (together with some other species), social abilities for the very small social circle very likely evolved with pair-bonding (Immerman 2003; Dunbar and Shultz 2007) and what Hrdy (2009) called "cooperative breeding". Pair-bonding in which the fatherhood is acknowledged and the offspring stays in the vicinity (Chapais 2008) is the prototype of cooperation among humans. The origins of this relational development may be motivational (liking, caring for the partner, emotional empathy) but in humans they were over time linked to highly sophisticated cognitive abilities, especially increased working memory together with sophisticated abilities to produce cognitive representations (mental models) and to have shared representations with others; to read facial expressions; to discern trustworthiness of the partner; to regulate one's emotions; and to cognitively "mentalize," that is, understand others' thoughts, desires, beliefs, intentions, and knowledge (Blair 2005).

These abilities made it possible to share and help on the basis of discerned needs of others and to cooperate in the smaller group. They importantly include an evolved ability for the use of language and two coordinated adult-child linking mechanisms, both of which partially include language ability: (a) the child's ability to signal its needs and elicit empathic reactions and the corresponding responsiveness of adults to this elicitation (Hrdy 2009); (b) the ability to learn from adults not just by imitation and pattern recognition but also by being explicitly instructed, with the adult's corresponding ability to teach (Gopnik, Meltzoff, and Kuhl 1999; Tomasello 2008). The skills and abilities that are necessary for parent-child relations and longer-term parenting partner relationships are very likely the basis for skills and abilities that are necessary for entering and maintaining other kinds of relationships (Dunbar and Shultz 2007).

### The Crucial Step: Group-Mindedness

The most important aspect of the development of these combined cognitive and motivational abilities is that it is the basis for the possibly most crucial step: the ability to bond emotionally and cognitively with the group as a whole, to be able to take the perspective of the group and act as a member of the group (Lindenberg and Foss 2011). The importance of this ability cannot easily be overestimated. There are group advantages that simply derive from numbers (such as schooling in fish), but, for humans, most advantages of living in larger groups derive from collective goods produced by the group. Without a mode in which humans are oriented toward group goals, these collective goods would only be produced sporadically, if at all. This mode is the basis for the human ability to function in groups of very different sizes and very different goals. Humans can act as members of small groups but also as members of large nations, and even feel embedded in a subgroup as part of a large group. For humans, this embedding of subgroups and flexible change of membership is seemingly much more developed than for any other species (Aureli et al. 2008). This group-mindedness is also the basis for most sociologically important collective phenomena, such as collective action, ingroup-outgroup dynamics, organizations, the ability of collectives to govern with or be governed by social norms and legitimate rules, and so on.

Group-orientation is thus also crucially important for the generation of social order at the micro-level, as we will discuss in more detail later on. The importance of this ability has long been recognized in sociology and social psychology. It is at the heart of role theory, minimal group and entativity theories, social identity theory, self-categorization theory, expectation state theory, and many theories of norm formation and norm conformity. Recently, its enormous evolutionary importance has been emphasized again by Tomasello et al. (2012). However, what is missing so far in all these notions of human group-mindedness is a theory that accounts for the fact that individuals flexibly move in and out of group-mindedness, that there are important mechanisms that make this flexibility possible. From an evolutionary point of view, the group is there mainly for the adaptive advantage of the individual, and not the other way around. If individuals were stuck in the mode of group-mindedness, they would not have much chance to get their genes into the gene pool. Other, less group-minded, individuals would likely displace the highly group-minded creatures. In other words, the evolution of group-mindedness must have gone along with the evolution of mechanisms that let individuals flexibility shift between self-directed and group-directed modes. How should we account for this? Saying that human nature is “double,” that everybody is both selfish and group-minded, will not suffice because it does not tell us anything about the conditions under which the modes shift. A theory that aims at explaining the generative (i.e., micro-level) mechanisms of social order must be able to account for this shifting form of flexibility. In the following, I will discuss

first the basics of a theory that can account for flexible shifts (goal-framing theory) and then apply it to our central question: the microfoundations of social order.

#### GOAL-FRAMING THEORY

The central thesis of this chapter is that at the heart of the microfoundations of social order lies the goal-based architecture of the human mind. Goals are mental constructs that combine motivational and cognitive processes that guide organisms to select and perform activities that are instrumental to obtaining them. This ability to have and pursue goals is not unique to humans. However, for humans, the combined motivational and cognitive processes that are involved in goal pursuit are so advanced that they can hardly be compared to that of any other species. These processes involve highly developed ways of mentally representing objects, symbols, relations, and desired states together with a large working memory capacity. Importantly, representations are differentially accessible and are only influential to the degree they are activated at a given moment (Förster, Liberman, and Higgins 2005). Built on these representational capacities (which are not necessarily conscious) humans have advanced goal-related capacities to monitor the degree to which a goal that is presently activated has been realized; to detect errors; and to react to this information in such a way that, when the goal is realized, one turns to another goal, or, when progress is not satisfying, to take action for improvement; to respond emotionally to success and failure in goal-pursuit and to quickly determine the direction of action (approach or avoidance); and to inhibit incompatible goals (see Carver and Scheier 1998).

This advanced human capacity to pursue goals is itself crucially enhanced by yet another advance: the development of overarching goals (or “mind-sets”). Overarching goals operate like goals but, in addition, they represent the contextual guidance for the selection and execution of concrete lower-level goals. In other words, concrete goals are embedded in overarching goals. For example, the concrete goal to help a fellow passenger in distress is embedded in the overarching goal “to act appropriately.”

Overarching goals can “capture” the entire mind and its processes and they are supported by hormonal and emotional processes, but ultimately they are steered by the social environment. They can turn an individual into a norm-guided person at one moment and into a self-centered egoist at the next. For example, Liberman, Samuels, and Ross (2004) found that just labeling a social dilemma game as ‘Community Game’ (activating a normative orientation) versus labeling it as ‘Wall Street Game’ (activating a gain and competition-related orientation) made a big difference in the relative frequency of cooperative responses (66% versus 31%). These changing mind-sets create the situational flexibility of human beings which, in turn, is crucial for social

order at the micro-level. Goal-framing theory (Lindenberg and Steg 2007; Lindenberg 2013) has elaborated the workings of overarching goals. In the following, I will present the basic outline of this theory.

### Three Overarching Goals (Mind-Sets)

Overarching goals are chronically activated to varying degrees and in this sense human motivation is mostly “mixed.” However, in most situations, one overarching goal (called the “goal-frame”) is more strongly activated than the others, thereby inhibiting the other overarching goals to various degrees. It “frames” the entire situation, largely governing what we attend to; what information we are sensitive to; what we expect others to do; what we like and dislike; and what criteria we use for success or failure of goal achievement. There is a strong cognitive side to goal-frames as they also activate mental models about roles, relationships, and group situations, including chunks of causal knowledge concerning these situations. Conversely, goal-frames can also be activated by mental models. For example, the Wall Street versus Community game experiment just mentioned showed that by activating certain mental models (concerning competition or cooperation), the label itself also activated a different mind-set. Being combinations of motivational and cognitive processes, goal-frames also have a strong affective side. They are linked to characteristic emotions.

What we need to answer first of all for the microfoundations of social order is: What different overarching goals are there? How are they related to each other? What activates a particular goal-frame and what stabilizes or destabilizes it?

**The Hedonic Goal.** From an evolutionary point of view, it makes sense that the most basic overarching goal is related to the satisfaction of fundamental needs, both physical and social. Needs are distinguished from mere “wants” by the fact that for needs deprivation leads to pathological states (Baumeister and Leary 1995). For example, deprivation in physical needs (such as the need to eat) and in social needs (such as the need for social acceptance) lead to states that endanger one’s functioning (Lindenberg 2013). Need deprivation makes itself known to the individual by negative feelings (e.g., feeling hungry) and need satisfaction does this by the positive feelings associated with satisfaction (such as enjoyment). Some of these feelings are emotions like joy and fear. In short, the most basic overarching goal is linked to focusing on improving/maintaining the way one feels and it is called *hedonic* goal. The more salient the hedonic goal, the less considerations of context (such as: decorum, or health, ownership, future consequences) play role. Because this goal is one step removed from needs themselves (because the focus is on the way one feels), the hedonic goal may be activated also in situations where needs are not directly involved but where feelings (say aroused by hearing somebody cry) or objects that are associated with feelings (such as a nice piece of cake) are made salient.

When the hedonic goal is the most salient overarching goal (i.e., when it is the goal-frame), one is highly sensitive to information in the environment about opportunities to improve the way one feels (say, easily detecting cues concerning possibilities for enjoyment) and about threats to the way one feels (say, easily detecting required effort levels for certain activities). Conversely, sensitivity regarding aspects of other overarching goals (such as costs or appropriateness) is diminished. The *social* situations that make people feel highly uncomfortable are quite specific to this overarching goal; situations in which people are uncertain about what would make them feel better and situations in which others lower the social need satisfaction (e.g., being unfriendly or disrespectful).

For social rationality, the most important development is that next to the hedonic goal, two other overarching goals evolved, very likely on the basis of the highly developed human ability to put oneself into the shoes of others: a *group-oriented* overarching goal (called a *normative* goal) and a *personal* gain-oriented overarching goal (called *gain* goal). Via these two “new” overarching goals and their dynamic interrelationships, the uniquely human combination of rationality and sociality became possible.

**The Normative Goal.** The individual adaptive advantages from living in larger groups (in terms of profiting from common gathering, hunting, defense, etc.) only materialize if the group can offer collective goods. In turn, the ability of groups to do that depends on the ability of group members to be in a state in which they are willing to contribute to these collective goods. The increased working memory that allows considerable tracking ability of who did what also allowed reputation and reciprocity effects of mutuality. This is likely to have contributed to the willingness not to free ride. However, keeping free riding at bay does not yet explain the human ability to jointly produce local order and collective goods. For example, in a hunting party, there is a complicated interplay of understanding the joint goal and the way the different abilities (in terms of tracking, shooting, carrying, etc.) mesh and contribute to the joint goal (see Liebenberg 1990). It requires a collective orientation and an understanding of what it takes to act as a member of a group. This capacity probably evolved on the basis of combining the empathic capacities with the advanced representational capacities that (a) allowed humans to cognitively represent the group as a social whole and (b) to see themselves as part of this group. The overarching goal that belongs to this state pertains to the realization of group goals, to do what is socially expected, what is appropriate. Because social norms and legitimate rules codify group goals, this overarching goal is called *normative* goal.

Even though the positive effects for the group of following a norm may lie in the future, the feeling of obligation created by a salient normative goal is “here and now,” making future-related discounting effects unlikely. When the normative goal is the most salient overarching goal, one is highly sensitive to information about the expectation of others, about what the norms and

legitimate rules are. Sensitivity to information that pertains to aspects of other overarching goals (such as costs or effort of a particular action) is diminished; the more so, the more strongly the normative goal is activated. In a normative goal-frame, people cooperate even if they do not consider the personal consequences of their prosocial action (Burton-Chellew and West 2013). The particular signature of the normative goal is enhanced by the fact that it is linked to social emotions, such as guilt, shame, and gratitude (Fessler and Haley 2003). The social situations that make people feel highly uncomfortable are quite specific to the normative goal: situations in which people are uncertain about what the norms are or which norms apply (such as uncertainty about one's relationship with one's interaction partner).

**The Gain Goal.** Ironically, it is very likely that the ability that led to the most social (the normative) goal is also the basis for the most egoistic goal: the *gain* goal that is focused on increasing/maintaining one's resources (today mainly money or social influence). It is made possible by the ability to put oneself into the shoes of one's own future self. In turn, this ability too evolved very likely by combining advanced representational capacities (including counterfactual thinking) with the ability to put oneself into the shoes of others. It is the basis for planning, investing, and quite generally for resource-oriented behavior. Its longer-term orientation makes people highly sensitive to changes in resources (such as possible losses, out of pocket costs, and opportunities for gain).

Cheating and exploiting others is also made possible on the basis of this sensitivity combined with the ability to take the perspective of the other (Epley, Caruso, and Bazerman, 2006). For this very reason, the social brain has also been called "the Machiavellian brain" (Barrett and Henzi 2005). Sensitivity to information that pertains to aspects of other overarching goals (such as information on how one's feelings or one's sense of obligation may be affected) is diminished; the more so, the more strongly the gain goal is activated. The particular signature of the gain goal is enhanced by the fact that it is linked to resource-related emotions, such as greed and envy. The social situations that make people feel highly uncomfortable are also quite specific to this overarching goal: situations in which they are truly uncertain about what the costs and benefits are.

#### OVERARCHING GOALS AND SOCIAL ORDER

Social order at the micro-level is solidly based on the dynamics of goal-frames. Situations contain certain affordances and constraints that could influence behavior. But in most situations, there are multiple affordances and constraints and in a given situation it depends to a large extent on the goal-frame (and the associated mental models that are activated in this situation) which affordances and constraints will actually become influential.

This power of goal-frames to influence what aspects of the situation are important and to guide behavior in a given situation is thus thoroughly

intertwined with situational factors. Situations can activate certain goal-frames that, in turn, guide perceptions and behavior. Yet, these activation effects are far from random. Goal-frames are differentially linked to social relationships, to group membership and intergroup relations. Their activation is also highly dependent on cues in a given situation, and self-regulation consists to a large degree in anticipating these effects and choosing environments accordingly (Lindenberg 2013). In turn, this self-regulatory capacity varies among people, affecting the robustness and vulnerability of social order at the micro level. In the following, these linkages of goal-framing to social order will be looked at in some more detail.

### The Dynamic Interdependence of Overarching Goals

For the understanding of overarching goals and their impact on social order, it is important to consider their interrelationships first. To begin with, the three overarching goals are a priori not equally strong. From an evolutionary point of view, it is easy to see why this would be so. The hedonic goal caters to fundamental needs and is a priori the strongest. Since the group is there for the individual and not the other way around, the normative goal, catering to the group, is a priori the weakest. This means that the normative goal must have strong supports (mostly social and institutional), in order to trump the hedonic goal. The gain goal, catering to resources for the individual, is a priori weaker than the hedonic goal but stronger than the normative goal. The relative strength of both the gain and the normative goal is thus strongly dependent on the social and institutional environment. For example for most economists, the gain goal is the “natural state” of individuals. However, as Weber (1961) has shown, it takes considerable institutional development to bring the gain goal to prominence in society.

Next, it is important that all three overarching goals are chronically activated to some degree, with one of them in the cognitive foreground (the goal-frame) and the other two in the cognitive background. In principle, the three goals are antagonistic in the sense that they vie for the foreground position and inhibit the other two if they succeed to be in that position. But total inhibition is highly unlikely. This means that the background goals will still exert some dynamic influence on behavior. For example, if (in a normative goal-frame) following norms (say helping) costs money, then these costs are much less decisive than in a gain goal, but they will have some kind of influence. The higher the costs, the stronger the gain goal in the background becomes and the more gain aspects (such as guarding expenses when helping others) will become prominent (Lindenberg and Frey 1993). Eventually, the costs can get so high that the gain goal displaces the normative goal, pushing it into the background. The same would happen with the hedonic goal if, for example, following the helping norm does not require monetary expenses but effort (such as helping a friend move book cases).

Finally, even though the three overarching goals are antagonistic, certain aspects of each goal in the background may actually serve to support the goal in the foreground. For example, when one is in a normative goal-frame, one may experience a warm glow (a hedonic aspects) in the background (Andreoni 1990). This good feeling about doing what is right (possibly enhanced by praise) then strengthens the normative goal and cushions the effect of antagonistic aspects in the background (such as sensitivity to resource loss or effort). A similar supportive effect could be achieved by increasing one's status or gaining other resources by following norms. Especially for the normative goal (which needs much support in order not to be displaced by one of the other two goals) this possibility of hedonic or gain support from the background is crucial.

A stable prominent position of the normative goal in a group without hedonic and/or gain supports is highly unlikely. But then, the calibration is essential: when people get a symbolic reward for following norms, it will support the normative goal-frame. But if the rewards cease to be symbolic (such as paying your child for mowing the lawn, see Lepper and Greene 1978) then the normative goal-frame may be "crowded out" by a gain goal-frame. The same holds for negative sanctions. If they are seen as supporting a common goal, they will support the normative goal-frame. If, however, they are seen as a "price" for deviating, they will weaken the normative goal-frame and strengthen the gain goal (Gneezy and Rusticini 2000).

In sum, goal-frames can be seen as dynamic constellations of overarching goals, one of which is dominant, with the other two being antagonistic to various degrees, and with certain aspects of these background goals being supportive to various degrees. This is especially relevant for the normative goal-frame because it is both crucial for the creation and maintenance of social order at the micro-level and a priorily the weakest (thus heavily in need of more or less constant support to retain its position in the foreground). Internalization of norms alone by no means guarantees such a position.

### Relationships, Groups, and Overarching Goals

Social order at the micro-level is largely structured by social relationships. In turn, social relationships are structured by characteristic profiles of overarching goals. True to the evolutionary importance of "joint production," the most important generator of relationships are interdependencies, especially with regard to jointly realizing collective goals in groups or dyads (Lindenberg 1997). In this sense, social structure directly influences social order at the micro level.

There are relationships that are governed primarily by a hedonic goal-frame, with liking/disliking being the central hedonic aspect. Liking itself triggers a heightened tendency to consider the well-being of the liked other (Güroğlu et al. 2007; Lawler, Thye, and Yoon 2008). However, liking relationships

are also affected to various degrees by one's normative and gain goals in the background (Dijkstra, Kretschmer, Lindenberg, and Veenstra 2014). There is a pragmatic side to liking. In general, one can say that we like others who are furthering our goal pursuits and dislike others who block our goal pursuits (Ferguson and Bargh 2004). Also, perspective taking itself, being so essential to group life, is not just an ability but also subject to motivational processes (Singer et al. 2006). Thus, liking and normative dynamics in relationships are often intertwined.

Relationships, in turn, are embedded in group contexts. In evolutionary terms, humans have evolved to function in so-called fusion/fission groups (Aureli et al. 2008). For example, at one moment one is member of a hunting party, at another moment one is in a larger group sharing food, and in yet another moment, one may take part in common rituals of a yet larger group, which, in turn, may later split up again into smaller groups for sleeping. Thus, relationships are embedded in groups and, in turn, smaller groups are embedded in more encompassing groups.

The importance of this fusion/fission inheritance is that the normative goal is flexibly adjusted to different (in)group contexts and relationship within these contexts. It covers a general and more or less universal set of social norms that pertain to relationships with all members of ingroups, and a set that is specific to a particular ingroup. Relations with the (members of) outgroups are generally not covered by the normative goal but by the hedonic goal (in the extreme: hate, derision, disdain) or the gain goal (in the extreme: exploitation, expropriation, elimination). This combination of a general and a specific set of norms allows humans not just to flexibly move in and out of embedded groups, but also to function in groups of various sizes without losing normative guidance. The set of general norms (also called "solidarity norms," Lindenberg 2014), pertain to the group's ability to produce collective goods and, together with the dynamics of liking, forms the basic foundation for generating social order at the micro level.

**The General Set of Social Norms.** The social brain has evolved bit by bit in such a way that this set of norms will emerge virtually in every group with common goals (see Lindenberg 2014 for additional detail). It is an open question, whether the norms themselves are hardwired or whether certain hardwired processes (such as liking and recognizing common goals, others' needs, and externalities) lead to spontaneous emergence of norms and sensitivity to learning by instruction.

The most basic norm in the general set pertains to *sharing* with others. This may have evolved step by step from tolerated theft to deliberate sharing. Sharing equalizes ingroup differences in ability and neediness and it is the basis for a division of labor with the group. Related to sharing is *helping* others in need which greatly enhances the group members' ability to provide collective goods. Children as young as eighteen months already recognize situations in which help is needed and are spontaneously willing to help (Warneken and

Tomasello 2009). The norms to *cooperate* in the joint realization of group goals by pulling one's weight and not free ride is an extension of the helping norm to the group level.

There are additional norms in the general set that are likely to have evolved later in response to the increased ability to put oneself into the shoes of others. As may be recalled, this ability also allowed for the development of the gain goal and the capacity to deceive others (Epley et al. 2006). This "dark side" of perspective taking, made *trustworthiness* (such as keeping one's promise) an important aspect of living in groups, codified in a social norm and coupled to the additional social norm to *understand and make oneself understood by others* (Gigerenzer 2001). Finally, as group life becomes more complex, positive and negative externalities are potentially increasing in number and intensity. Thus, *considerateness* (i.e., being mindful of externalities) grew in importance and was codified in a social norm that covers anticipating especially negative externalities and limiting doing harm to others. Prominently, it also covers apologizing when things inadvertently go wrong.

#### SOCIAL ORDER IN COMPLEX SOCIETIES: THE IMPORTANCE OF WEAK SOLIDARITY

Social order on the micro level is very much dependent on circumstances that activate the normative goal and particularly the set of general social norms. Strongly solidary groups are characterized by high normative activation, clear group boundaries, and more or less hostile intergroup relations. This facilitates social order but also highly restricts its range. Yet, the fact that we are always dealing with a particular constellation of foreground and background goals creates the flexibility for a social process the importance of which for social order cannot be overrated: weak solidarity (Lindenberg 1998). By bridging groups it stretches the range of the normative goal-frame, blurs the ingroup/outgroup divisions and allows sustainable exchange relationships (Lindenberg 2006).

Weak solidarity is brought about by a dynamic interdependence of the normative and the gain goal. In weak solidarity relationships, the gain goal is relatively strong but the normative goal limits its influence. Compared to strong solidarity, the social norms are adjusted with regard to gain related aspects: (a) the individual interests weigh more heavily; (b) the potential legitimate maximum sacrifice for conforming to social norms is relatively low; and (c) the sharing norm is equity rather than equality. When the pursuit of gain threatens conformity to the weak solidarity norms, the normative goal becomes relatively more salient, and when conforming to weak solidarity norms threatens to become too costly, the gain goal becomes relatively more salient.

Weak solidarity relations make it possible that social order is widely extended across groups. However, for this to happen, forces on the micro level that pull in the direction of strong solidarity must be relatively weak. For example, the pull of tribal or familial solidarity or the perceived threat to ingroup identities

can be so strong that weak solidarity cannot be sustained. Thus, as Max Weber had also observed, where strong solidarity forces are at work, they have to be “tamed” before weak solidarity can be established (Weber 1961). For the weakening of strong solidarity claims, strong macro influences are necessary, most likely from the state or religious organizations, to credibly eliminate intergroup threats and create instruments of trust (in terms of loyalties, justice, media of exchange, etc.). Thus, even though weak solidarity is created and recreated at the micro level, it needs to be embedded in supportive macro structures to be maintained.

### Normative Uncertainty and the Importance of Education

As Durkheim (1893/1964) had already observed, when social groups become larger and more complex and weak solidarity becomes more prevalent, norms become more abstract in order to cover more varied groups and circumstances. In addition, there will be more contexts in which the gain goal is relatively strong and the reach of normative behavior is not clearly established. This creates normative uncertainty. First, it becomes less clear (compared to less complex groups) when norms apply and when one is free to pursue one’s hedonic or gain goals. For example, when one passes an injured person on the street, should one stop to help? Is he really needy and are there not other people or authorities that should help? Or how honest should I be with a business partner when negotiating a deal? Second, when norms and legitimate rules are more abstract, their exact meaning is often not clear. For example, if there is a (legitimate) rule that I should be on time for work, does that mean that I have to be there on the dot or is ten minutes late also okay? Third, many situations are not covered by norms and rules but by conventions and habits (what Cialdini calls “descriptive norms,” see Cialdini et al. 1990) and people frequently encounter contexts for which they don’t know what these conventions and habits are.

Given these developments that are due to increasing complexity, there are important changes in the way norms work. Because of the abstractness of norms, individual intelligent effort is needed to apply the norms in a given situation. Even the general social norms become less straightforward with increasing complexity of society. In many cases it is not at all clear what I have to do to be cooperative or considerate. In other words, people have to apply such norms using their head rather than simply follow them. This is why they have been called “smart norms” (Lindenberg 2008). The intelligent effort feeds on knowledge and savviness which makes norm conformity ever more dependent on education.

The uncertainty about norms and their range also increases the pressure for functional legitimacy. For example, why should I be at work on the dot? What does it matter if I am five minutes late? This increased pressure for functional legitimation has serious consequences for what is meant by authority

(Lindenberg 1993). Rules are no longer covered by the normative goal just because somebody “in authority” says so. Rules must make sense to elicit some feeling of obligation and this also holds for norms and for the auxiliary rules that govern the applicability of social norms. For example, why should I help somebody who was warned not to drive while drunk and did it anyway? For answering this question, would it matter what I knew about differences in self-regulatory ability? The need for functional legitimation also introduces an educational aspect into norm conformity. The better educated or savvy, the easier one can judge the functional significance of a rule or norm. The importance of education reinforces the need for macro embedding of weak solidarity in complex societies.

### Cue Sensitivity and the Local Context

Uncertainty about norms and their range also boosts the importance of the local level by increasing the importance of social influence (especially imitation and cross-norm effects). The underlying mechanism is anchored in the fact that overarching goals need to be activated in order to influence behavior. As described earlier, this activation is sensitive to cues about the behavior of others; the more so, the less certain or clear the norms are. This opens the doors wide to social influence processes, including imitation (Cialdini et al. 1990).

But probably the most important cue effects for social order at the micro level are those that affect the relative strength of the overarching goals. They bring about so-called cross-norm effects: Observing cues of (dis)respect for norm A strengthens (or weakens) the normative goal in the observer and thereby also increases the likelihood that the observer will follow (or not follow) norm B. In recent times, we have gathered a considerable amount of evidence on such “cross-norm” effects. For example, observing graffiti (disrespect for norm A) increases the likelihood that people will steal (Keizer, Lindenberg, and Steg 2008). Conversely, observing a resident clean his sidewalk in front of his house (respect for norm A), increases the likelihood that the passerby will subsequently help somebody else (respect for norm B) (Keizer, Lindenberg, and Steg 2013).

Both imitation and cross-norm effects make local social contexts important for social order, even if one does not interact with the people who create the social context. Cross-norm effects are of particular importance because they make (dis)respect for norms spread through a social system (such as neighborhoods, organizations, and social groups).

### Self-regulation

Context, both macro and local, have a big impact on behavior via their influence of the relative strength of overarching goals but this does not mean that humans passively undergo this influence. Humans are sophisticated

self-regulators and the choice of contexts is an important instrument in the self-regulatory toolkit.

Self-regulation involves the conscious and unconscious pursuit of goal states (including comparison of present and desired states and error detection). It is not one particular capacity but a number of mechanisms with different degrees of voluntary control. To understand how this works, it is useful to distinguish roughly between lower and higher order self-regulatory mechanisms (see Lindenberg 2013 for more detail). The lower order consists of processes that have to do with bodily functions and fundamental needs, including regulation by hormones (such as oxytocin). The hedonic goal is closely (but not exclusively) tied to lower-order self-regulatory mechanisms. Higher order mechanisms are concerned with the balance between lower order mechanisms, resource-oriented behavior and norm-oriented behavior. They are thus closely tied to the gain and the normative goals. For example inhibition of the hedonic goal (“temptation”) by either the gain or normative goal is often called “self-control” (for example Inzlicht, Schmeichel, and Macrae 2014). Self-control thus necessitates that the supports of the gain or normative goals are strong enough to be able to inhibit the apriorily stronger hedonic goal. An important source of support for the normative goal are significant others who represent social norms, but not everybody has such significant others (Lindenberg 2013).

Self-regulation is not just self-control but includes also emotion regulation (in favor of situationally appropriate emotions) and, importantly, anticipation of the effect of contexts on the salience of a particular overarching goals. For example, one might (not) go to a party because one anticipates a strong hedonic shift once one is there. This ability to anticipate contextual influences on overarching goals is the basis for battling the automaticity of the context effects on the overarching goals. However, people are not equally able to anticipate context effects and also not equally able to choose their social context, even if they anticipate these effects. For example, in many places, inner city youths may be virtually unable to escape their social context, even if they would like to. Lower positions in organizations are also often highly restricted in the choice of contexts. Poverty (especially when accompanied with low education) is likely to have a similarly restricting effect. This restrictive effect on self-regulation may underlie the finding that a low sense of control reliably correlates with worse health (Marmot 2006).

Anticipation of context effects may also have a motivational component, such that whatever weakens the sense of self also weakens the motivation to anticipate future consequences. Interventions that strengthen the sense of self (say through self-affirmation) can thus also strengthen self-regulatory capacity (Lindenberg 2013, Cohen et al 2009).

Social factors that strengthen the ability to deal with smart norms (such as education) and self-regulatory capacity (such as significant others, context choice, and self affirmation) make the production and maintenance of social order at the micro level more stable and less dependent on cue effects (such

as observed (dis)respect for norms). They thus contribute importantly to the sustainability of social order at that level.

#### SUMMARY AND CONCLUSION

Human beings have not been dropped on this earth fully developed as they are today and left to figure out how they can create social order. The “social rationality” approach taken here proceeds from the proposition that human beings evolved together with the abilities to create and maintain social order (at any level). More specifically, human rationality in the sense of the capacity to pursue personal and collective goals and to self-regulate co-evolved with human sociality (i.e. the ability to empathize, cooperate and create collective goods). But ontogenetically, both human rationality and sociality are heavily dependent on social conditions both for their development and for their maintenance. The claim is thus that if we want to get a handle on the generation and maintenance of social order at the micro level, we have to know how this dependence of the abilities to create social order on social conditions works. This is what this chapter is about.

The central mechanism that governs both human rationality and sociality lies in the evolution of three overarching goals (mindsets) and their dynamic interrelations. If it gets strong enough, an overarching goal can “frame” a situation, i.e. govern what we pay attention to and ignore, what information we are sensitive to, what we like and dislike, expect from others, and call success or failure. There are three such overarching goals: the hedonic goal (related to the satisfaction of fundamental needs, both physical and social and focused on improving the way one feels); the normative goal (related to the realization of group goals and focused on what is socially expected and appropriate); and the gain goal (related to farsighted goal pursuit, focused on the improvement of one’s resources). The latter two overarching goals evolved on the basis of the ability to put oneself into the shoes of others, extended to the group as a whole, and to one’s own future self, respectively.

At any given moment, all three overarching goals are activated to some degree, but, depending on which goal is presently the strongest (i.e. the goal-frame), one will behave quite differently. Apriorily, the hedonic goal is the strongest and the normative goal the weakest, with the gain goal in between. This means that both the normative and the gain goal need much social and institutional support in order to be situationally stronger than the hedonic goal. Social order at the micro level is dependent on both macro forces and local influences that affect the relative strength of the overarching goals. The big difference with Hobbes’ approach is that Hobbes dealt with the gain goal as if it were fixed and the only overarching goal. The big difference with Parsons’ approach is that he dealt with the normative goal as if socialization could make it permanently stronger than other overarching goals.

The normative goal, covering both general social norms (“solidarity norms”) and group specific norms, is arguably the most important for social order, aided by aspects of the hedonic goal (liking), but it is highly precarious. Given the right support for the normative goal, the set of solidarity norms, and liking jointly form the basis for the creation of social order at the local level.

An important point of the argument is that in modern, complex societies, social order basically centers around the creation and maintenance of “weak solidarity.” Tight groups create the strongest support for the normative goal and strong solidarity in groups is highly functional for local social order but it also creates hostile intergroup relations. In weak solidarity the gain goal and the normative goal keep each other in check. This allows productive intergroup relations but it also necessitates a strong macro influence that suppresses the forces that pull in the direction of strong solidarity (such as tribalism, familism, cronyism, sectarianism, chauvinism, etc.). In such societies local (weakly solidary) order could not exist without a strong institutional support. This is an ironic twist of both Hobbes’s Leviathan and Parsons’ normativity approach.

Next to the macro dependence of social order at the local level, there are developments that simultaneously increase the power of local contexts by the fact that greater complexity also implies greater normative uncertainty. In turn, the greater the normative uncertainty, the more norm conformity depends on intelligent effort (and thus education) and on the influence of local social cues. For example, cues that some people did not respect a particular norm (such as the norm against graffiti), can weaken the relative strength of the normative goal and lead to other, possibly completely unrelated, kinds of deviance, including stealing.

Finally, human self-regulatory capacity helps in dealing with normative uncertainty and can make people being less influenced by social cues they happen to encounter. But this capacity is itself related to the relative strengths of overarching goals and thus depends itself on social factors (such as the link to norm-oriented significant others, the ability to change social contexts, and the degree of self-affirmation) which are luckily not necessarily the same as the conditions for weak solidarity.

In conclusion, understanding conditions that govern social order at the micro level necessitates an understanding of the evolved goal-related human capacities and proclivities concerning the production and maintenance of social order as well as the sensitivity of these capacities and proclivities to social and institutional influences.

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