

## **CHAPTER 3**

### **SOCIAL RATIONALITY AND WELL-BEING<sup>1</sup>**

Siegwart Lindenberg

#### **INTRODUCTION**

It is by now a matter of consensus in the social sciences that to a large degree people create their own well-being within the constraints with which they are confronted (see Frey and Stutzer 2002). Micro-economic theory has had a strong influence on this view, against the teachings of much of traditional sociology that saw individuals as corks on the sea of society. In fact, microeconomics offered a fairly straight forward view of the matter. People are the world's expert on what they want and what is good for them and this is reflected in their ordered preferences. However, they are confronted with constraints. Rationality is the ability to realize the highest preferences, given the constraints. The realization of one's highest preferences is the realization of one's well-being. There has been much applause and much criticism for this approach to human agency. What seems to emerge among a growing number of scholars, is the view that people's well-being is intertwined at least through the fact that human preferences contain a good deal of social preferences, concerning such things as fairness, reciprocity, helping (see for example Fehr and Fischbacher 2002, Charness and Rabin 2002). This insight is driven by much experimental research and by new insights from evolutionary psychology. This is a big improvement. However, with this adaptation, we still have a big problem, namely the assumption that people are the world's experts on what they want and what is good for them, i.e. that they have stable ordered preferences. There is much

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<sup>1</sup> Parts of this article have been adapted from a forthcoming book by the author on social rationality (Princeton University Press).

research that points the other way and, for reasons of space, I will only mention a few references. For example, there is much research on people not knowing what they want (Ariely, Loewenstein, and Prelec; Hsee and Hastie 2006) or people being subjectively wrong about thinking they want something (Gilbert and Wilson 2000; Hsee, Loewenstein, Blount, and Bazerman, 1999; Moore 1999; Stutzer and Frey 2007). There are many goods about which people have no preferences or no stable preferences or temporarily shifting preferences. For example, as Ariely et al, (2006) point out, many goods involve streams of heterogeneous experiences. Take a vacation. It may mean peaceful hours of reading on the beach, lovely weather, delicious food, but also screaming kids, stressful transportation, and backbreaking beds. What aspects are in foreground and what aspects are in the background at a particular moment with regard to the willingness to pay for such a good? What factors influence shift in the weight of these aspects?

Not only are preferences not stable, we have evolved to let our preferences be influenced by physiological processes and by social influence. For example, mating and bonding with one's infants are adaptively and socially very important processes that are to a considerable degree influenced by physiologically triggered shifts in preferences. Various hormones thoroughly affect preferences when people fall in love (Fisher, Aron and Brown 2006). Plasma oxytocin stimulates bonding behavior by the mother with her infant (Feldman et al 2007). Oxytocin also affects interpersonal trust (Kosfeld et al 2005). Subliminal levels of smells can influence social preferences (Li, Moallem, Paller, and Gottfried 2007). Social circumstances also affect preferences in functional ways. For example, it is often adaptive to follow those who are visibly more successful than oneself, but this is not just a matter of imitating behaviour. People let their likes and dislikes be influenced by those they admire (status effect, see for example Cohen and Prinstein 2006), by the group they identify with

(see for example Cohen 2003), and by how useful or thwarting things are for their goal pursuit (see Ferguson and Bargh 2004).

These kinds of processes are automatic and influenced by social circumstance. However, other research on how the brain works has provided much evidence that this should not lead one back to the idea that individuals are just reacting (more or less automatically) to social influence, that they are corks on the sea of society after all. What emerges from this research is that basically the brain works very much with cost/benefit calculation (see Denk et al 2005, Niv 2007). Many animals, including humans, deal with scarcity of energy in such a way that exertion of energy is related to hard-wired processes of cost-benefit analysis. However, these cost benefit calculations are often not conscious. For humans, in any case, the inputs into these calculations, such as expectations and evaluations are subject to influence from the environment. Suffice it to say, it seems wise to stick to the idea that human beings have much to do with the purposeful production of their own well-being, just not quite the way micro-economics assumes it works. What then? From microeconomics, we can and must hold on to the importance of dealing with aspects of relative scarcities. However, three crucial new steps have to be taken that lead away from traditional micro-economics, concerning the importance of goals, the social brain, and self-regulation. For social policy, for a long time strongly based on micro-economics, it is also important to follow these steps.

The newer research about the influence of goals shows that what really matters is not preferences but goals. When goals are focal, they govern what we like and dislike, what we pay attention to, what information we are particularly sensitive to, what knowledge is being activated etc. (see for example Ferguson and Bargh 2004; Gollwitzer and Bargh 1996, Kruglanski, 1996, Strachman, and Gable 2006). Goals, in turn, are strongly influenced by social circumstances, so that these circumstances have a considerable impact on cognitive

processes, including expectations, evaluations, discerning of alternatives, problem solving etc., in short on what normally is grouped under the umbrella of rationality.

Still a step further, there is evidence that our brains have developed to let social circumstances have such a strong impact on our cognitive processes. Dunbar (2003) calls this the *social brain hypothesis*. During the process of evolution, primates evolved to being able to derive adaptive advantages (as individuals) from living in groups. The neocortex developed especially for the social skills and sensitivities necessary to function in large groups. This allows also cultural evolution in the sense that some groups come up with better solutions to these problems than others, giving their members a higher chance to procreate. However, since the group is there for the adaptive advantages of the individual, there is a problematic balance between taking care of oneself and taking care of the group.

Lastly, the ability to negotiate this problematic balance requires considerable powers of self-regulation. One cannot burst out aggressively against others in the group and hope to remain accepted in the group. One has to be able to inhibit selfish impulses in order to contribute to the functioning of the group. But one also has to be aggressive enough to take care of one's own interests. One's own well-being depends on one's ability to improve one's condition in the context of groups. Self-regulation can be considered the heart of this ability. In this sense, it can be seen as the heart of adaptive goal achievement, i.e. of rational action. In recent times, there has been much research on self-regulation (see Baumeister and Vohs 2004). What emerges though is again a strong dependence on social circumstances. What we need, therefore, is a theory that does acknowledge human ability to deal with scarcity but that also deals with the importance of goals, the social brain and the central place of self-regulation. This paper presents such a theory and some applications. The theory of social rationality, as I call it, is indeed more complex than the theory in microeconomics and thus also less tractable and not formalized. However, at this point, criteria of simplicity and

tractability are less useful because the emphasis is on explicating mechanisms. In later stages, maybe, whittling it down to formalized barebones may be a useful exercise. In the following, I will first describe such a theory of "goal-framing". Goal-frames are part of a semi-modular structure of high-level goals, each with a different effect on cognitions and evaluations. Since our well-being much depends in the collective goods produced by groups of which we are a member, I will then discuss experiments on contributions to social dilemma situations and how goal-framing helps us analyze conditions under which people are willing to sanction defectors. I will use studies from the literature for this purpose. After this, I turn to mixed motives and the questions how different goals interact and how the relative price effect changes with this interaction, using empirical examples from dictator and ultimatum games. Because most of this evidence comes from experiments, I will then present recent real-life research on overtime work in order to illustrate the workings of goal-frames, including the danger of considerable one-sidedness of behaviour that can make people neglect their own overall well-being. I will then deal with self-regulation and the sociologically most interesting social conditions on which it depends. Self-regulation is here conceptualized as the ability to influence and balance goal-framing processes even though they are not open to direct choice. Finally, I will discuss why it is important for sociologists to consider physical and social needs in relation to the goal to improve one's condition.

## **GOAL-FRAMING THEORY**

The most important observation in this context learned from cognitive (social)psychology about human decision making is that it does not seem to flow from a general problem-solving device. Rather, decisions to act are mostly semi-modular. People concentrate on some preferences and some constraints, and even the way they process information, and their attitudes, expectations, and behavioral repertoires are situationally selective. By "semi-modular" I mean that human beings are not general purpose problem solvers, as implied by

the microeconomic view of rationality; but neither are they modular in the sense of Fodor (1983) or are they stuck with a “Swiss Army knife”, where each blade (a hard-wired task-specific module) serves a different purpose (see Tooby and Cosmides 2000). There are hardwired modules, such as face recognition, and learned modules, such as word recognition and habits, each characterized by functional specificity (Barret and Kurzban 2006). But there are also semi-modules that consist of *selective activation* of cognitive processes and evaluations for functionally specific purposes. They are governed by goals (Marsh, Hicks, and Bink 1998, Förster, Liberman, and Higgins 2005). In addition, as we will see below, the modularity that is created by the selective activation of goals can also be influenced by goals in the background, which makes this modularity porous and thus “semi” in this specific sense.

If we look for the most inclusive semi-modules, we must look at high-level goals that each comprise a great number of subgoals and representations of means and causal relations among them. When such a goal is focal, it organizes cognitions and evaluations in a semi-modular way and it selectively activates hardwired and learned modules. A focal high-level goal can thus be seen a composite module, comprising a particular selection of semi-modules and hardwired and learned submodules. In that sense, goals create domain specificity and selective sensitivity to specific inputs. For example, the high-level goal “to act appropriately” is likely to make situationally relevant norms more accessible, make people particularly sensitive to information about what is expected, activate the modules to process information on gaze and on certain facial expressions of approval and disapproval, and activate response tendencies and habitual behavioral sequences concerning conformity to norms (such as facial expression, shaking hands, keeping a certain distance to the other person, helping in need etc.) and activating positive evaluations of the means to reach the

goal (Ferguson and Bargh 2004). This is the gist of goal-framing theory (Lindenberg, 2001a; 2001b; 2006) which I will briefly describe in some more detail.

### **Three Goal-Frames**

People are driven to improve their condition. This goal has long been recognized as a major human striving. Adam Smith had already drawn our attention to “that great purpose of human life which we call bettering our condition.”<sup>2</sup> Human beings are also able to discern possibilities to do so and to monitor their progress of goal achievement, adapting their behavior accordingly (Carver and Scheier 1998). The crucial claim of this paper is that people do not directly deal with their “overall condition”. Rather, at each moment, a particular aspect of their condition is in focal awareness, dependent on the high-level goal that is activated at the moment. Three such high-level goals have been identified and described in some detail (Lindenberg, 2001a, 2006). They are the *hedonic* goal “to feel better right now”, the *gain* goal “to guard and improve one’s resources”, and the *normative* goal “to act appropriately”. When such a goal is activated (i.e. when it is the “focal” goal), it will influence how people process information, what persons think of at the moment, what information they are sensitive to, how they will evaluate things, what action alternatives they perceive, and how they will act. Thus, the focus of improvement in a hedonic goal-frame is the way one feels; in a gain goal-frame it is one's resources (such as investment behavior); and in a normative goal-frame, it is appropriateness of one's behavior. A focal high-level goal together with its selective cognitive and evaluative aspects is called a “goal-frame”.

What goal is focal depends on cues that make people interpret the situation as belonging to one of the three high-level goals. For example, if people interpret a situation as one in which appropriateness is the most important purpose, a normative goal is likely to be

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<sup>2</sup> Theory of Moral Sentiments (I.iii.2.1). We find a similar notion in The Wealth of Nations as a desire that “comes with us from the womb, and never leaves us till we go into the grave.” (II.iii.28)

automatically made focal. If they interpret the situation as one in which gain is the most important purpose, a gain goal is like to become focal. Relatively simple social cues are often enough to steer the interpretation and, as a consequence, make one or another goal focal. A good example is the study on labels as cues by Liberman, Samuels and Ross (2004). They found that labeling a social dilemma game as “Community Game” (suggesting a context with group-related decisions and an emphasis on appropriateness ) versus labeling it as “Wallstreet Game” (suggestion a context with gain-related decisions) made a big difference in the relative frequency of cooperative responses (66% versus 31%). Presumably, the label alone created different interpretations of the situation and consequently more or less cooperative behavior. The sensitivity to social cues that trigger a certain goal is likely to be part of our genetic equipment. For example, Haley and Fessler (2005) had people play a *dictator* game with an anonymous partner. In a dictator game, an offerer gets a certain amount of real or token money (from the experimenter) and is asked by the experimenter whether he or she is willing to share this money with another person (the recipient), and if so, how much the other person will get. Such a situation is ambiguous with regard to the social cues concerning the purpose and thus extra cues are likely to have a strong impact<sup>3</sup>. Haley and Fessler assumed that in the course of evolution people acquired a high sensitivity that increases the readiness to think of others when feeling observed (see also Milinski and Rockenbach 2007).

Therefore, the authors had one dictator game condition with a neutral cue and one with a pair of stylized eyes (see Figure 1) staring directly at the subject from the computer screen. The willingness to share the money with the other was dramatically higher in the eye condition (88% in the eye condition compared to 55% in the control condition), as was the average amount shared with the other (38% of the endowment in the eye condition compared to 25%

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<sup>3</sup> Below, I will present the general structure of the dictator game in some more detail

in the control condition). In the following, I will go into some more detail about the hedonic, gain, and normative goal-frame.



Figure 1. Eyespots used by Haley and Fessler (2005)

A *hedonic goal-frame* activates one or more subgoals that promise to improve the way one feels in a particular situation (such as avoiding effort, avoiding negative thoughts and events, avoiding direct uncertainty, seeking direct pleasure, seeking direct improvement in self-esteem, seeking excitement etc.). Its time horizon is very short and the criterion for goal realization is an improvement in the way one feels. People in a hedonic frame are especially sensitive to what increases and what decreases their pleasure and affects their mood. For example, in a hedonic goal-frame, people are likely to react much more strongly to being made to feel bad, say, by being treated unfairly, than in the other two goal-frames.

A *gain goal-frame* will make people very sensitive to changes in their personal resources. Its time horizon is middle or long-term and the criterion for goal realization is an improvement of (or prevention of decrease in) one's resources or efficiency of resources. Subgoals having to do with resources (such as saving money, increasing one's income, dealing with threats to one's financial security), will be easily activated, but subgoals having to do with the way one feels and with normative behavior (see below), are pushed into the cognitive background. Note that norms can play an important role in a gain-goal-frame to the degree that the individual is focused on costs. For example, cheating is against the established norms, but in a gain goal-frame only the expected costs (say, in terms of a fine or reputational damage) of cheating will be considered. For people in gain goal-frame, when a particular good in the supermarket is more expensive than another of comparable quality, not much attention will be paid to the fact that one was produced in an environmentally friendly way

while the other was not, even if the person values a sustainable environment. In such a goal-frame, norms play a role only as sources of constraints (such as disapproval or a fine). For example, cheating is against the established norms, but in a gain goal-frame only the expected costs (say, in terms of a fine or reputational damage) of cheating will be considered. For many economists, this strategic opportunism simply describes the way humans generally behave. For example, Williamson emphasizes that a realistic view of human nature is self-interest seeking with guile, including the “calculated efforts to mislead, distort, disguise, obfuscate, or otherwise confuse.” (Williamson 1985, p.47). Prosocial tendencies such as kindness, sympathy, solidarity, and the like, have no place in this view. Williamson goes on to stress that “to the extent that such factors are acknowledged, their costs, rather than their benefits, are emphasized.” (*op.cit.* p.391). Even many early rational choice sociologists followed this line and insisted that one should start with the assumption that human beings are “entirely self-interested, not constrained by norms of a system, but only rationally calculating to further his own self interests.” (Coleman 1986, p. 17). This “non-modular” view of human nature takes the gain goal-frame as the only one and neglects the hedonic goal-frame as well as the normative-goal-frame to be discussed in the next paragraph.

*A normative goal-frame* activates all sorts of subgoals associated with appropriateness (such as behaving the right way, contributing to a joint project, showing exemplary behavior). It will make people especially sensitive to what they think one ought to do. Thus, the important aspects of a situation are normative, both in the sense that one is sensitive to “oughts” according to self or others and sensitive to what one observes other people do (corresponding to the distinction made by Cialdini, Reno, & Kallgren, 1990, on injunctive and descriptive norms ). For example, a person in a normative goal-frame will not throw a piece of trash on the street because this is inappropriate to do. When people are in a normative goal-frame, subgoals having to do with the way one feels and with personal

resources are pushed into the cognitive background. Thus, for example, people who see a situation as a joint project (in a normative goal-frame) will contribute more to a collective good than people who see the situation as “economic” one (in a gain goal-frame, see for example Pillutla and Chen 1999). Note that a normative goal-frame is not the same as adding social preferences to the non-modular view of micro-economics.

### **The importance of background goals and the a priori strength of goal-frames**

There are two important additional points to be made about the goal-frames. The first point concerns the fact that the modularity of goal-frames is porous, it is open to some influence from the background goals, an important reason for modularity to be “semi”. Motivations rarely are totally homogeneous, as we know from experimental evidence and daily experience. More often than not, they are mixed and it depends on the relative strength of the foreground and background goals what the final effect will be. For example, the goal to eat (a hedonic goal) may be focal and the goal to remain healthy (a gain goal) may be in the background. Köpetz, Fishbach, and Kruglanski (forthcoming) showed that when the goal to eat is activated and its salience is boosted then subjects, asked to choose between 16 kinds of foods, do not make a difference between high or low calorie foods. By contrast, when the focal goal to eat is not boosted, then subjects are still focused on food, but the background goal (health) kicks in and subjects prefer low calorie over high calorie foods.

These effects of background goals imply that even in a dominant normative goal-frame considerations about gains are not completely gone. Conversely, experimental evidence shows that people rarely act completely egotistically even if their main goal is gain. Rather, even then, they seem to be somewhat restrained by normative concerns (see Camerer, 2003). At any time, one goal is focal and influences cognitive process the most (i.e., it is a goal-frame), while other goals are in the background and increase or decrease the strength of the focal goal to a greater or lesser degree. How does this work?

Often the goal-frame and background goals will be in conflict. For example, if being cooperative is quite expensive, the normative goal-frame and the gain goal in the background are incompatible. This may not change the goal-frame from a normative one to a gain goal-frame, i.e. the background motive may not affect the *orientation* (the ordering of alternatives is still in terms of appropriateness, not in terms of price) but it may lead to the choice of a less appropriate (but cheaper) alternative. In this case, price will affect the choice less than appropriateness. If goal-frame and background were reversed in this example, appropriateness concerns would affect the choice less than price (see examples below).

The background goals do not necessarily weaken the workings of the goal-frame. When they are compatible with the goal-frame, they strengthen it. This is particularly important for the normative goal-frame which, as I will discuss in a moment, is *apriori* the weakest goal-frame that needs the most support (from compatible background goals) in order to withstand the weakening effect of conflicting background goals. What actually happens is that alternatives may serve both the focal and the background goal(s) to various degrees. When there is a conflict, then alternatives that serve background goals the best serve the focal goal quite badly and vice versa. When there is compatibility, then alternatives that serve the focal goal well will also serve the background goal well. Below I will explicitly address this process.

Second, *a priori*, the three goal-frames are not likely to be equally strong. The hedonic goal-frame, being directly related to need satisfaction and thus being the most basic, is very likely to be *a priori* the strongest of the three master goal-frames. In other words, in order to displace the hedonic goal from the foreground, the gain and normative goals must have additional supports. In order to withstand the onslaught of conflicting hedonic goals, gain and normative goal-frames need to be supported by compatible goals in the background. These supportive background goals are, in turn, often dependent on institutional

arrangements. As Weber (1961) has shown, the gain goal-frame needs institutions (such as religion and/or secure property rights) that allow the individual to act on behalf of a reasonably well established future self. The normative goal-frame is even more dependent on external support, be it through institutions, moralization (see Lindenberg, 1983, Rozin 1999) or explicit disapproval for not following the norm (see Tangney & Dearing, 2002). However, as we will see below, human beings are also quite sensitive to social cues that automatically activate a normative goal-frame if the competition from hedonic and gain goals is not strong. This seems just a kind of "low cost" morality (see Kirchgässner 1992) but it is essential in creating the momentum for cooperation in social dilemma situations (see also Gürerk, Özgür, Irlenbusch, and Rockenbach 2006). In the following, I will focus mostly on questions and examples concerning the supports for the normative goal-frame against hedonic and/or gain goals because these supports are of crucial importance for sociological analyses. For this to happen, the normative goal-frame must be strongly supported. In the following sections I will present experimental evidence on the workings of supports for the normative goal-frame. Even though laboratory experiments are far removed from every-day situations, they are very useful for uncovering mechanisms that are relevant in everyday situations (see Gächter, this volume). In a later section, I will present in some detail a real-life example of research on goal-framing effects. Readers who find reading about experiments tedious might skip the next sections and turn right away to the real life example on working overtime.

### **Example of goal-framing and the importance of background goals**

In situations in which there are ambiguous cues as to a particular goal-frame, it is likely that people will focus on different aspects and hence be in different goal-frames. However, if we then reduce the ambiguity even in subtle ways, the effects can be quite dramatic because then the cues are more likely to pull most people into the same kind of goal-frame. In ambiguous situations, one goal-frame can be boosted or weakened by cues about background goals or

cues about the relative weight of focal and background goals. Interesting evidence about this comes from experiments with dictator and ultimatum games<sup>4</sup>. In a *dictator* game, the offerer can unilaterally divide a certain amount of real or token money (provided by the experimenter) between himself and another recipient. In an *ultimatum* game there is an offerer and a responder. The offerer can divide a certain amount of money and the responder must accept or reject the offer. If he accepts, both get what the offerer suggested, if he rejects nobody gets anything. The first important thing to observe is that the participants interpret the situation, which triggers foreground and background goals. This, in turn, determines the relative weight of self-interest and group concerns. In an experiment, this interpretation depends on cues such as the instruction and the role selection (see Bolton, Katok and Zwick 1998), say, as dictator or as a recipient. As we could see above from the examples of the "Wallstreet" game versus the "community" game, the process is to a large extent automatic, a form of priming through cues, which makes some cluster of goals dominant in the foreground (goal-frame) and some other goals more or less salient in the background.

The dictator game is often quite ambiguous with regard to cues for goals. Often, the recipient is anonymous, the money to be divided is of uncertain property right etc. It is thus not surprising that subjects generally interpret the situation in different ways. Some see it as their good luck that they are in the role of *dictator* which triggers a strong gain goal-frame and they keep everything ("it's mine"). Others see the situation as one in which they are privileged by the situation, which also triggers a gain goal-frame but is also seen as a situation that asks for some kindness toward the non privileged recipient ("be kind"). In the latter case, the gain goal-frame is weakened by a normative goal in the background (kindness towards the unfortunate). A third group sees the situation as one of an amount of "unearned"

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<sup>4</sup> These games were first introduced by Güth and his associates in the early 1980s (see Güth, Schmittberger and Schwarze 1982).

money and a request to divide it between himself and a recipient, which triggers a normative goal-frame with the norm “to divide equally”., with a gain goal in the background that may pull the division to some degree away from equality towards a more favorable division for the offerer.

Overviews of results from many such dictator experiments come to averages between 20% ( Forsythe et al. 1994) and 35% (Camerer 2003) of the offerers who keep all to themselves ("it's mine"). A larger number of subjects, however, belongs to the "be kind" group. They give the other recipient a share of 20% to 25% of the money. Eichenberger and Oberholzer-Gee (1998) found that even in a “gangster” game, in which somebody can unilaterally and with impunity request money from others, most subjects don’t go all out but leave on average 24% to the original owner. On average, in dictator games subjects don't seem go below 10% (Ledyard 1995, p.172). What is going on? The most likely interpretation of all these findings is that, in such situations, some normative concern keeps people from going all out, but this concern is clearly in the background, only tempering the gain goal-frame. Even though personality traits and trait-like value orientations are likely to play a role (see for example De Dreu and Boles 1998), it is clear from the experimental evidence that situational conditions strongly affect the interpretation of the situation as "it's mine", "be kind" or "share equally" thereby varying the relative strength of the gain goal vis-à-vis the normative goal. Increasing cues to resources (say high cost of being kind or of dividing equally) will increase the weight of the gain goal, whereas boosting cues that emphasize the social (such as a worthy cause, face-to-face interaction and discussion with the recipient) will decrease the relative strength of the gain goal-frame. Results from literature reviews by Ledyard (1995) and Sally (1995) strongly corroborate this view. Let us look at a few examples ourselves.

### **Increasing the weight of the normative goal-frame.**

It is of great sociological significance that human goal-framing is highly sensitive to social cues. When cues about social aspects of the situation are made more salient, the relative weight of the normative goal to the other two goals is increased. Eckel and Grossman (1996) have shown that when the recipient in a dictator game is a worthy cause (in this case, the Red Cross), then the percentage of subjects who keep all for themselves (the "it's mine" group) dwindles from 35 to 0 percent, even though the giver remains unidentified to the receiver (so in this game it is not possible to gain reputation from giving to a charity). Personal identification of giver and recipient to each other has an even stronger effect in tilting the weight in favor of the normative goal. For example, Bohnet and Frey (1999) made subjects who were paired by the experimenter for a dictator game stand up and look at each other before the game began. As can be seen from Figure 2 this had a drastic effect of decreasing the "it's mine" group from 36 to zero percent and to increasing the "share equally" group from 25 to 71 percent. This result may, in part, be due to the effect of thinking more of other when feeling observed (see above and Milinski and Rockenbach 2007). Note that the additional cues are subtle and that these foreground/background effects do their work automatically, without any calculation of the subjects, and yet, they are of great influence on behavior. Of course, changes in constraints (for example costs) will also exert their influence, but they do so *within* the context of the automatic foreground/background effects, as illustrated in the next example.

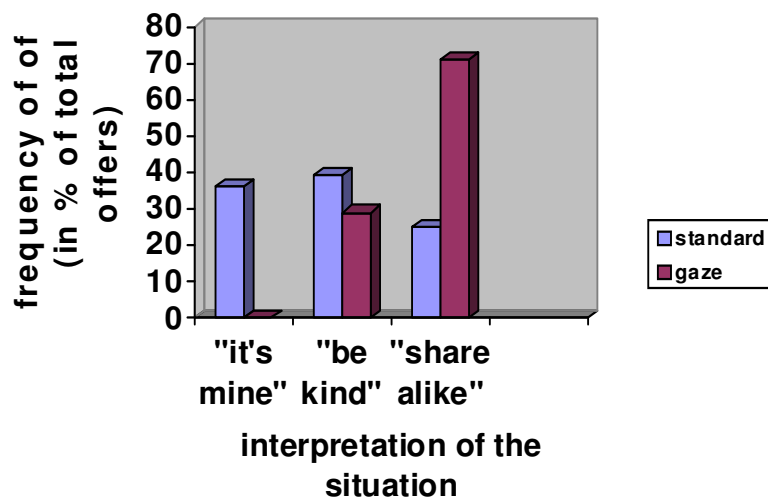


Figure 2. Dictator game: Effect of gaze (after data from Bohnet and Frey 1999)

### The Effect of Costs on Behavior

Semi-modularity also means that people in a normative goal-frame will be more influence by considerations of gain (in the background) when the cost of norm conformity goes up.

Conversely, the effect of increasing cost of behavior for people in a gain goal-frame will be mitigated by normative concerns in the background. To illustrate this, let us look at the effects of costs on behavior such as being kind or sharing equally. Oesch and Murnighan (2003) found experimentally that, as expected, subjects allocate money more equally between themselves and another person if they like than if they dislike the other. The division of money with a “friend” seems to have been generally driven by a norm of equality. However, as the amount of the money to be divided increased, the division deviated more from equality in favor of the divider. In his meta-analysis of social dilemmas, Sally (1995) also found that defection in such dilemmas tends to increase with the size of the temptation to defect. At first blush, this could be interpreted as a typical example of the “low-cost” effect (see Kirchgässner 1992) in which people follow norms if it does not cost them much but go for their own self-interest the moment that stakes are a little higher. There very well might be such a low-cost effect that makes people switch from a normative to a gain goal-frame the

moment costs reach a certain limit. However, other experiments show that in addition to the

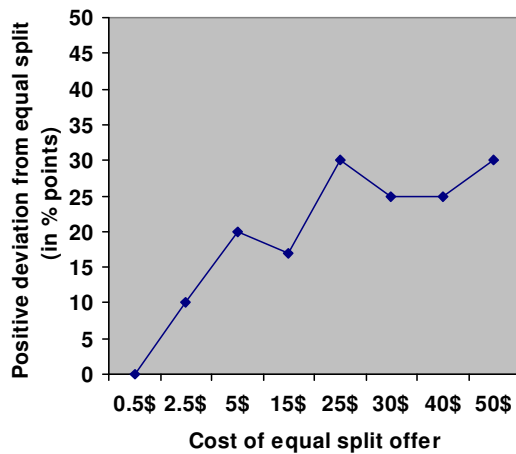


Figure 3. Positive deviation of offer from equal split as a function of the cost of an equal split, when size of pie is not known (based on data from Straub and Murnighan 1995).

possibility of a goal-frame switch, there is a genuine reduction of normative behavior *within* a normative goal-frame before a frame switch occurs.

This can be nicely demonstrated with an ultimatum game experiment in which the “offerer” divides a given sum of money and the “responder” accepts or rejects; if he accepts, both parties get what was suggested; and if he rejects nobody gets anything. When we look at the standard ultimatum game, we see that the cues are clearer than in the dictator game and there is less variance in how the situation is interpreted. The ultimatum game creates interdependencies not observed in the dictator game. When played with human subjects, the situation is clearly social. Cues of sharing possibilities and “unearned” (i.e. provided) money are likely to trigger a normative goal frame with the self-interest goals in the background. The self-interest goals can weigh relatively heavier or lighter compared to the normative goal, depending on the size of the sacrifice or acting appropriately. The size of the sacrifice can even get so large that self-interest takes over as goal-frame. In a clever ultimatum game experiment, Straub and Murnighan (1995) argued that if people have a genuine preference for being fair, then they would keep to fairness standards even if the recipient does not know whether or not the division is fair. If, however, people are only interested in appearing to be fair, then it will make a big difference what the recipient knows about the fairness of the

offer. In order to test this, Straub and Murnighan varied the amount of money to be divided (the "pie") and the information the responder has on the size of the pie, in order to find out whether the offerer cares for being fair or just for appearing to be fair. The authors created two conditions. In one condition, the responders know the size of the pie that is to be divided by the offerer (as in the standard ultimatum game) and in the other condition, the responder does not know the size of the pie (and thus cannot judge how fair the offer is) and is hence not likely to punish the offerer by rejecting a low offer with losses for both). The question is, will the offers be the same in both conditions, or will they be lower in the second condition? The results show that when responders did not know the size of the pie, the median offer was 30 %, whereas it was close to 50% when the size of the pie was known. In other words, it seems that it is more important to appear fair than to be fair. This, in any case, was the conclusion by the authors. Does it hold?

*Puzzles.* The authors do not explain why the median offer dropped only to 30% and not a lot lower. If people can also appear fair by offering much less than 30% and if they only care about appearing to be fair, why do they still offer 30%? And why would they care about appearing to be fair in the first place? The answer to this last question is, of course, that the responder might reject an unfair offer and that the offerer takes this into consideration. But then why does the responder care about fairness? Even more puzzling: Why do the same people have changing concerns about fairness? When they are in the role of offerer, they seem to act strategically and not care about being fair, but when the same people are in the role of responder only a short while later, they seem to care much about what they perceive to be fair treatment. Thinking about this puzzle in terms of “genuine” versus “strategic” preferences rather than in terms of goals (foreground/background) let Pillutla and Murnighan (2003, pp.253, 257) observe this puzzle and call this behavior "inconsistent" but unable to explain it.

Looking at the data more carefully (Figure 3), we see that the behavior changes as the price of fairness goes up and that this occurs within the context of automatic goal-framing effects. The ultimatum game is set up as a sharing situation in which the pie to be shared is provided rather than earned. This is likely to trigger a normative goal-frame. When it costs the offerer 50 cents to offer an equal split, he also offers according to what is normatively appropriate behavior (an equal split) even though the responder does not know what the size of the pie actually is. As the cost of an equal split increases to \$2.5, the offerer offers a little less. He deviates 10% from the equal split (i.e. he offers 40% on average) which is still quite close to equality. The offers decrease to about 30% deviation from an equal split as the price of an equal split increases to \$25 and then remains fairly stable, even as the price goes up further. Why does the deviation from an equal split not keep going up, following the price increase? The most likely interpretation of this pattern is that as the price goes up, for most subjects, the normative concerns of sharing move from foreground to background but still exert considerable influence from the background. With an increasing price of being fair, the interpretation of the situation changes from "share alike" to "be kind". The normative goal in the background prevents the subjects from reasoning that "its all mine, I will share as little as I can get away with, and because the other does not know the size of the pie, I can get away with very little indeed". As discussed above, "share alike" is part of a normative goal-frame (with gain concerns in the background), and "be kind" is part of a gain goal-frame with normative concerns in the background. However, the important point here is that as the price of normative behavior increases, gain-related behavior becomes more prominent (as one would expect) but normative concerns will continue to influence behavior (from the background). Thus, not only goal-frames, but also the influence of background goals on behavior need to be considered. Modularity is porous.

## **The role of ambiguous normative standards**

This porosity of modularity also shows up when norms are ambiguous. There are situations in which the cues are not ambiguous and they clearly trigger a normative goal-frame. However, the normative standards themselves may be ambiguous which unleashed foreground/background effects. In a normative goal-frame, people want to act in accordance with fairness norms. However, when different criteria of fairness are available, gain concerns in the background will make themselves felt. People will choose the alternative that asks the smallest sacrifice or allows the largest claim for themselves. For example, if somebody invested more in a joint task than others, he prefers equity rather than equality because the equity fairness standard will get him a larger return. Conversely, the others would prefer equality over equity for the same reason. Also, research shows that asymmetric social dilemmas (in which the worth of certain inputs differ for different participants) generate more self-interest, such as over-harvesting, than symmetric social dilemmas (see Wade-Benzoni et al 1996). Babcock and Loewenstein (1997, p. 120) also observed that the moment a slight asymmetry is introduced between the parties (such as different non-agreement values or costs of non-settlement) then the parties' notion of fairness will tend to gravitate toward a division that favors themselves. This means that the goal to act appropriately still governs their behavior but that the criterion of what is appropriate is biased in the direction of what is best for them in terms of gain. The semantics of the description of the situation can also have such effects. For example, if an ultimatum game is described not in terms of accepting and rejecting but in terms of claims, justice concerns will be stronger (see Larrick and Blount 1997); if it is described in terms of choice, or exchange, then justice concerns will automatically be pushed into the background, as Handgraaf and colleagues (see Handgraaf, Van Dijk, Wilke, and Vermunt 2003) have shown. As can be seen from these examples, the automatic goal-framing effects that come from good causes, communication, gaze, and the

semantics of the description of the situation limit the room for self-interest goals to various degrees.

In sum, although goal-frames create modularity, they are porous with regard to the influence of background goals. For example, when the gain goal-frame favors a representation of the situation in terms of opportunities for gain (as in the dictator game), the goal to act appropriately (say in terms of fairness) in the background can add an extra weight to those gainful alternatives that are more compatible with fairness (and thus less gainful than would be possible in this situation). What a background goal cannot do is to dominate the representation of the situation. Thus, for example, when gain is the goal-frame, the alternatives will be seen in terms of opportunities for gain, no matter what the background goal is.

One important lesson to be learned from the kind of evidence just discussed is that *behavior is brought about mostly by a number of different motives and that non-the-less one motive (the foreground goal) dominates the cognitive processes* (see again results in Figure 3). For example, normative and gain motives often mix, but it makes a big difference whether people are in a gain goal-frame and don't go all out in the pursuit of gain, or whether they are in a normative goal-frame and cut corners due to the influence of gain motives. This difference lies in the fact that the focal goal, and not the goal(s) in the background, governs the selection and representation of preferences and constraints. In everyday life this creates much room for powerful but subtle cues. For example, whether people communicate face-to-face or just by email may make a big difference for the relationship (see Walther 1995). The difference in cues may be subtle, but, as we have seen from the Bohnet and Frey (1999) experiment, it may have dramatic effects by making some representations of the situation much more likely than others, thereby greatly increasing the likelihood of certain goal-frames and the degree of their modularity (by the influence of background goals). The most

important impact of semi-modularity on well-being is likely to be found in contexts of joint projects. Making and maintaining collective goods is vital for people's well-being and in the next section, we turn to this aspect.

### **EXAMPLE FOR GOAL-FRAMING IN THE PRODUCTION OF COLLECTIVE GOODS: SANCTIONS**

Background goals may strengthen a normative goal-frame so that it can withstand the onslaught from gain and hedonic goals and smooth the way to cooperation, mostly in the form of contributing to collective goods. From the point of view of economic theory, it is surprising how willing people are to contribute to collective goods. As Andreoni (1995, p.1) put it: "The fact that a large fraction of the population voluntarily contribute to public goods, despite strong incentive to free-ride, has been a long-standing puzzle to economists."

However, there is also evidence that the willingness to cooperate decays over time, *ceteris paribus*. The reasons offered in the literature for this decay are various (ranging from initial confusion and later learning [see Palfrey and Prisbrey 1997] to strong reciprocity [see Gintis, Bowles, Boyd, and Fehr 2003]). From a goal-framing theory point of view, decay can be expected because the weight of the hedonic and gain background goals increase as norm conformity keeps asking for some form of sacrifice in terms of hedonic or gain goals. As a result, the normative goal-frame will be weakened over time and maybe even replaced by one of the other two goals, thereby endangering *sustained* cooperation. Yet, in social life, much of an individual's well-being depends on sustained cooperation in groups (Lindenberg 1997). As mentioned above, Dunbar (2003) even goes so far as to argue that the neocortex developed under selective pressure to be able to draw adaptive advantages from living in groups. He produces much evidence for the hypothesis that it was social aspects of the group (cohesion, alliances, social strategy in mating contests) that selected for increased relative size of the neocortex. However, the advantage from groups only materializes if the groups are able to

produce collective goods. In the face of evidence that the willingness to cooperate decays over time, the question is how it can be sustained. In terms of goal-framing theory, this question can be stated more concretely: how can a normative goal-frame be sustained over time?

The gist of the answer to this question is: A normative goal-frame is sustainable over time due to sanctions. This will be no surprise. There is considerable consensus that public goods will be more readily produced if free-riding behavior is sanctioned (see Fehr and Fischbacher 2004, Masclet, Noussair, Tucker and Villeval 2003). This is not just the case because otherwise free-riders will not contribute, but also important for keeping those who are initially willing to cooperate motivated to keep cooperating. There is fairly good evidence that without sanctions, the willingness to cooperate decays as an individual's sacrifices for the good of the whole group cumulate (Andreoni 1988; Fehr and Schmidt 1999; Muraven and Baumeister 2000).<sup>5</sup>

Sanctions imply losses of resources and/or bad feelings (say, from being disapproved of). In a gain goal-frame, changes in resources are part of the information one is particularly sensitive to. In a normative or hedonic goal-frame, one is less sensitive to changes in resources because the gain goal is in the background. However, as discussed above, changes in resources will affect the stability of a normative and of a hedonic goal-frame and thus, sanctions (i.e. losses in resources) can be interpreted to be especially important for stabilizing a normative goal-frame. Just how dramatic the impact of sanctions are, can be gleaned from an experiment by Fehr and Gächter (2000). They showed that in a social dilemma experiment for groups of four subjects (who remained anonymous to each other) with a finite number (ten) of rounds and no possibility to punish (also no possibility to acquire a reputation), cooperation began medium high but dropped off over the course of ten

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<sup>5</sup> See below for possible reasons for this process of decay

periods to a very low level. After the ten rounds, subjects were told that they now participate in a new experiment that resembles the first one, but that it is now possible to punish others. After subjects decided whether or not to cooperate, they were informed about the others' actions (cooperation or defection) and then they could decide whether or not they would like to sanction others (at their own cost). We can see in Figure 4 how dramatic the difference in cooperation is between the games with and without sanction possibility. The important point for the current paper is that the working of sanctions is very much dependent on goal-framing, and this is what I will focus on in the remainder of this section. First, the workings of sanctions depend on the goal-frame within which they are perceived. Second, the workings of sanctions also depend on the willingness of people to sanction others. In both cases, goal-framing effects play an important role and I will briefly describe some evidence for the first and then (more in detail) evidence for the second.

### **Sanction work differently in different goal-frames**

When people are in a gain goal-frame, sanctions are seen as costs of deviating behavior. If sanctions are not very high and/or detection is not very likely, then people in such a goal-frame will not follow the social norms. For example, if the government is not legitimate, then citizens are likely to be in a gain goal-frame when it comes to paying taxes, and thus they will pay taxes in an opportunistic fashion. If one benefits from breaking the rules and can get away with it, one will do so. By contrast, when people are in a normative goal-frame, then sanctions are seen as supporting the group and its norms. In that case, the severity of sanctions and/or the likelihood of detection have much less of an influence on norm conformity even in situations where one would benefit from breaking the rules. To stay in the example, when the government is legitimate, most people will feel obliged to pay taxes. Of course, due to the influence of background goals, this willingness to pay taxes will, *ceteris paribus*, decline with increasing tax rates (see Torgler 2002). In other words, in order for

cooperation to be sustainable even when sanctions are not severe and the likelihood of detection is not high, a group context must be established first in order to trigger a normative goal frame. In the experiment just mentioned by Fehr and Gächter (2000), the group context was established by introducing a social dilemma situation as a joint project. When people have the feeling that they jointly produce a valued good with others (such as creating a public good or being member of a social group or community) then a normative goal-frame is likely to prevail, at least initially (see Lindenberg 1997, 1998, Liberman, Samuels and Ross 2004; Rege and Telle 2004).

Experiments by Fehr and Rockenbach (2003) support this difference in the way sanctions work. They found that when sanctions are interpreted as supporting private gain, they reduce the willingness to cooperate if the punishment is not high enough. By contrast, when sanctions are interpreted as supporting the group, they promote “altruistic” cooperation. Fehr and Rockenbach conclude by saying that their finding “is in contrast to prevailing approaches in economics, biology, and behavioral ecology, which predict cooperation-enhancing effects of sanctions, regardless of the moral legitimacy or purpose of each sanction.”(p.140).

That this difference is indeed due to goal-framing can be seen from an experiment by Lindenberg and Steglich (forthcoming). Here subjects have been experimentally manipulated to take on a gain or a normative goal-frame in a social dilemma situation. The dependent variable was the amount of contribution to the collective good. There was a sanction for not contributing, but it changed from one iteration to another. In a sequences of eleven choice situations in which subjects had to decide how much to give to the collective good, the punishment (identified as “cost”) for not contributing would go progressively up from zero to an amount that would make contributing the dominant strategy. We predicted that the level of cooperation for subjects in a gain goal-frame would increase with increasing

cost for not contributing, and that the contribution of subjects in a normative goal-frame would start high and remain high (as rising sanctions counteract the decay effect and progressively indicate the social value of contributing, signaled by the increasing sanctions). We indeed found this pattern. For subjects in a gain goal-frame, contributions rose with the size of the sanctions, and for subjects in a normative goal-frame, contributions started high and stayed high, with little sensitivity to the size of sanctions.

Next, we investigated the effect of decreasing sanctions. We expected that as sanctions decrease, contributions for subjects in a gain goal-frame would also decrease. However, for subjects in a normative goal-frame the reaction would be different. Because people in a normative goal-frame are not very sensitive to sanctions, there should be little effect of decreasing sanctions at first. However, for people in a normative goal-frame decreasing sanctions are likely to signal that the social value of the expected behavior is deemed low, leading people to abandon the normative goal-frame in favor of a gain goal-frame. For example, if the punishment for not paying one's taxes were progressively reduced (*ceteris paribus*), people would eventually feel that paying one's taxes has changed from an obligatory to a discretionary act. We found strong support for this conjecture. Subjects in a gain goal-frame decreased their contribution steadily as sanction size decreased, but subjects in a normative goal-frame remained high in their contribution at first and then (around the 7<sup>th</sup> iteration) abruptly changed to the pattern of those in a gain goal-frame. In short, the way sanctions work depends very much on the goal-frame in which people perceive the situation. It is simply not so that people will react to the carrot and the stick irrespective of the goal-frame they are in. Nor is it true that people are chronically in a gain goal-frame. For institutional design this bears a clear message. Institutions need to contain sanctioning regimes, but they also must boost a normative goal-frame or else be confronted with insurmountable problems of surveillance (see Lindenberg 1992).

## The second order free-rider problem: is it a problem?

Sanctions and sanctioning regimes are important for the sustainability of cooperation, and this also holds for informal sanctions. But why would people take the trouble to sanction others? This refers to the so-called second order social dilemma about sanctioning.

Sanctioning free riders can itself be seen as a collective good that needs a sanctioning mechanism in order to be produced and so we get into an infinite regress (Yamagishi 1986). But then, maybe the sanctioning mechanism isn't a social dilemma after all. Here, having a closer look at goal-framing effects can help us find out what is going on.

We can look at this situation again from the point of view of the three major goal-frames. Assuming that punishing free-riders is possible, people in a gain goal-frame would punish the free rider(s) if they could expect that others free-ride and that the expected future resource gain from this action would be worth more to them than the cost of sanctioning. They are especially sensitive to cues and possibilities that affect their gain. People in a hedonic goal-frame are likely to sanction if the free-riding of the other(s) makes them feel bad and punishing the free-rider(s) would make them feel better. They are especially sensitive to cues and possibilities that affect their feelings. Finally, people in a normative goal-frame would sanction the free-rider(s) if they see that the free-rider(s) transgressed a norm and if

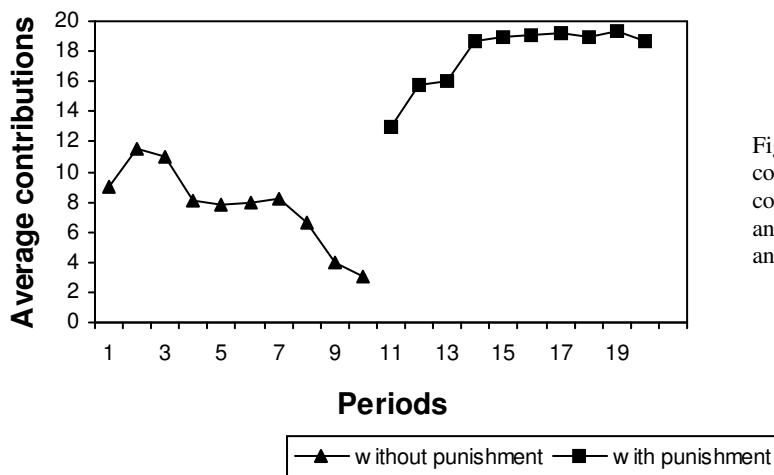


Figure 4. Average contributions over time for constant group condition with and without punishment (Fehr and Gächter 2000)

they feel obliged to punish the transgressor. They are especially sensitive to cues of and possibilities for meeting the expectations of relevant others. In the hedonic and the normative goal-frame, the gain goal is in the background and thus people will be much less sensitive to costs than if that goal would be in the foreground. Of course, if sanctioning is very costly, a goal-frame switch is likely to occur and people will be mostly concerned about their resources (see below). However, when the cost of sanctioning can be moderate and people are in a normative goal-frame, it will not play much of a role in the decision to sanction, and thus, in this situation, the second order social dilemma is really not a dilemma at all. The important question then becomes: Which of these goal-frames is most likely to prevail?

### **Sanctioning experiment**

Falk, Fehr, and Fischbacher (2005) conducted a study that allows us to get a better look at what goal-frames are likely to govern social dilemmas and under what circumstances, even though they did not explicitly focus on goal-frames. They conducted three-person one-shot social dilemma games (here: contributing to a common project) with two stages. Each participant had an endowment of 20 monetary units (game points). One-shot social dilemma situations were chosen in order to rule out obvious gain-related aspects of cooperation and sanctioning, such as the possibility that people cooperate or sanction in order to build up a reputation or to affect the others' behavior in future rounds. As mentioned above, the basics about social dilemmas and goal-framing are that a situation of being involved in a joint project is, for most people, likely to trigger a normative goal-frame with a sense of obligation to contribute to the joint project and not let others down. Next to normative aspects, there are gain aspects (related to free riding) but no particular hedonic aspects connected to contributions. Being involved in a joint project is conveyed by a cue (in the experiment by Falk, Fehr, and Fischbacher it is conveyed by saying that this is a *project with three participants*, one of them being you). Not everybody is likely to be equally sensitive to the

cue (joint project) that triggers a normative goal-frame. A minority will be in gain goal-frame and they see such a situation as an opportunity to increase their resources at the expense of others. In the setup of this study, cooperating yields considerably fewer points than defecting (how much less depends on what the others do). In stage 1 subjects decided simultaneously whether to cooperate or to defect. In stage 2, the subjects were informed about the others' choice in stage 1 and, subsequently, they could assign deduction points (i.e. punishments) to one or both of the others. In stage 2 the situation also changed with regard to possible goal-frames, in the sense that now also reactions to defection are added, with potentially *hedonic* aspects (such as feelings of unfairness and urges to retaliate).

There were two conditions in stage 2: the *high-sanction* condition (N=120) in which each point spent on punishing the other would result in at least 2.5 points of punishment for the other (thus the sacrifice connected with sanctioning was lower than the punishment); and the *low-sanction* condition (N=93) in which the sacrifice and the punishment were equal.

What were the results?

In the *high-sanction condition*, 61% of the subjects decided to cooperate and 39% to defect (in stage 1). Thus, as one can expect from a common project situation, a sizable majority decided to cooperate even though there was no punishment for not cooperating at this stage. This is evidence for the normative goal-frame. No money or status could be gained by cooperating in such a one shot game, it only costs money (or game points). Of those who cooperated in this condition, 68.5% decided to sanction defectors and only 6.8% sanction other cooperators. Now the crucial question is: In what goal-frame are they when they sanction? At this point it is not clear whether they switched from a normative to a hedonic goal-frame (the unfairness of others makes them feel bad and they feel better if they retaliate) or whether they remained in a normative goal-frame in which they feel obliged to follow the

norm and punish those who transgress the norm to cooperate. I will return to this question below. Let me first turn to the defectors.

The defectors were in a minority (39%). They are likely in a gain goal-frame, sensitive to resources and thus to the fact that cooperating does not pay in this game. How can we be sure they are in a gain goal-frame? Here, a surprising finding helps us: Quite a number of the defectors (37.2%) decided to punish others. This could be hypocrisy, punishing others for violating norms that one does not conform to oneself. However, this is unlikely because, even more interestingly, defectors punished other defectors and cooperators almost alike (34.0% versus 40.4%, respectively). What does that mean? It stands to reason that the defectors who sanction others (14.5% of the total N for the *high-sanction* condition) have not just a goal to earn as much money as they can, but also a status goal related to earning money. They would like to reduce the earnings of others and thus increase their own relative standing. Punishing the others in the *high-sanction* condition allows them to do this because by sacrificing one game point for sanctioning one reduced the other's income by at least 2.5 game points. The proportion of people who seem to have this status goal with money fits well with what is found in studies on value orientations which find about 14% of "competitively" oriented individuals in this age group (see Van Lange et al 1997). But Falk, Fehr, and Fischbacher (2005) provide even better evidence for the gain goal-frame in their own study. We can compare the results of the *high-sanction* condition with the results of the *low-sanction* condition in Figures 5 and 6. We see that when defectors cannot lower the others' earnings by punishing them (in the *low-sanction* condition, in which the costs of punishing equal the punishment for the other) they don't punish at all; after all, punishing would only cost them money without yielding an increase their relative standing. This high situational sensitivity to changes in resources (money, status) clearly points to a gain goal-frame.

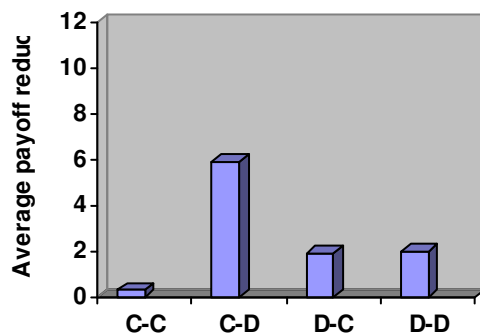


Figure 5 Average payoff reduction (from point of view of punisher) for the *high-sanction, strategy* condition. C-C represents the situation in which a Cooperator punishes a Cooperator; D-C represents a situation in which a Defector punishes a Cooperator, etc.

Now I turn to the cooperators. What goal-frame are they in? If they are in a normative goal-frame, as we expect, then they sacrifice and they are not very sensitive to the difference between the high-sanction and low-sanction conditions. Indeed, we see from Figures 5 and 6 that in both conditions, they sacrifice a lot more for punishing than the defectors, and we see that the results in the two sanction conditions differ very little. Thus the cooperators do not make use of sanctions in order to gain money or status. This strongly supports the conjecture that they not in a gain-goal frame. But what about feelings of unfairness and retaliation? Don't even cooperators punish mainly for feeling better rather than for feeling obliged to punish? In other words, is punishing not mainly a matter of a hedonic goal-frame even for cooperators? Fortunately, the study by Falk et al (2005) also allows us some interesting conclusions about this question. Falk et al. performed another comparison that was meant just as a control condition but which helps us to disentangle the goal-framing question. This contrast compares a "cool" conditional punishing response with a "hot" direct punishing response. For this, the authors compared two versions of the *high-sanction* condition. In the "cool" *strategy* condition (which is the one I already presented), subjects at stage 2 conditionally indicated whether or not they will sanction, depending on what the others will do. This means, that *before* they saw what the others did, they wrote down a schedule of their reactions to possible actions (cooperation or defection) of the others. Thus, their decision to

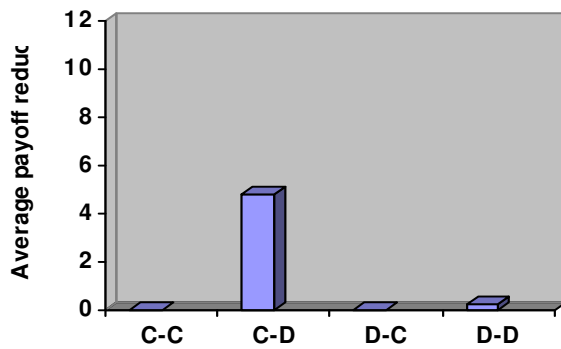


Figure 6 Average payoff reduction (from point of view of punisher) for the *low-sanction* condition. C-C represents the situation in which a Cooperator punishes a Cooperator; D-C represents a situation in which a Defector punishes a Cooperator, etc.

punish the other was not in reaction to the other's actual defection but to the hypothetical defection ("I will punish in case the other defects"). In a "hot" version of the *high-sanction* condition (the *specific response* condition, N=92) subjects did not write down their reactions beforehand but reacted spontaneously to what the others actually did. The "cool" and "hot" conditions are likely to differ in the weight of the hedonic aspects. The "cool" *strategy* version keeps the hedonic aspects low and focuses on what would seem appropriate for a particular kind of infraction. This favors a normative goal-frame. By contrast, the "hot" *specific response* condition enhances the hedonic aspects by asking for a spontaneous reaction to the actual defection which favors a hedonic goal-frame and thus a stronger reaction to defections (with reactive retaliation). Note that this enhancement of hedonic aspects in the "hot" condition should also hold for the subjects with an initial gain goal-frame. The results strongly support this interpretation. First of all, the percentage of cooperators who are willing to punish in the "hot" condition remains about the same as in the "cool" *strategic* conditions (70.3% punish defectors and 6.6% punish cooperators) but the intensity of punishment shoots up to almost twice the level of the *strategic* condition (compare C-D in Figure 6 with C-D Figure 7, notice the difference in scale). This is supportive evidence for the view that the *specific response* condition triggers a hedonic goal-frame. This conclusion is also supported by what we find for defectors. The hedonic aspects are likely to have weakened the gain goal-frame in favor of hedonic aspects for those who

still chose to defect. Defectors now are more set on retaliation than status. This can be seen from the fact that the percentage of defectors who punish cooperators is now much lower than it was (17.4%, compared to 34.0% in the *strategic* condition) and that the percentage of defectors who punish other defectors increased from 40.4% in the *strategic* condition to 50.0% in the *specific response* condition. In addition, as can be seen from comparing Figures 5 and 7, defectors in the *specific response* condition (Figure 7) show a much higher intensity of punishment for other defectors (D-D) than in the *strategic* condition (Figure 5). Thus whereas the symmetry of punishing cooperators and defectors in Figure 5 is likely be the result of using punishment as a means to increase one's own standing, the asymmetry between punishing defectors and cooperators in Figure 7 indicates that subjects respond more spontaneously on the basis of feeling (retaliation) than in Figure 5.

### **Lessons from this example**

What can we learn from this example? The willingness to contribute to joint projects is crucial for the positive influence groups can have on the well-being of the individual. One very important lesson is that in social dilemmas (when they are seen as joint projects) the initial decision to cooperate is likely to be governed by a sense of obligation rather than by considerations of gain. Only for a minority, the decision to cooperate will be governed by a gain goal-frame. However, the crucial point is that a normative goal-frame needs to be supported from the background (i.e. with non-normative goals) in order not to decay over time. By itself, a normative goal-frame is too weak to withstand the onslaught of a gain and especially of a hedonic goal. Sanctions are probably the most important means to stabilize a normative goal-frame. But what is new about that? Have economists not always insisted on the importance of “selective incentives”?

Here is where the second lesson comes in. Sanctions work very differently when people are in different goal-frames. Sanctioning regimes are rarely perfect. Often the deviant

behavior is unobserved and the probability of being caught is low. Thus, if people are keen on optimizing their own advantage (in a gain goal-frame) they will often not contribute to the common projects or even thwart the common projects if that is to their advantage. If they are in a hedonic goal-frame, contribution to the common project is likely to depend on shifting moods and the question whether or not contributing makes one feel better (see Carlson, Charlin and Miller 1988). Only when people are in a normative goal-frame are they comparatively insensitive to the level of the sacrifice asked for contributing to collective goods and to imperfections of the sanctioning regime (failure to monitor and low level of the sanctions).

If the normative goal-frame needs to be sustained mainly by sanctions, why would people take on the cost of sanction others? Are sanction regimes not collective goods themselves and thus need sanctions to be maintained leading us to an infinite regress? It has been found that in order to establish a sanctioning regime, at least a minority of cooperators who are also willing to sanction is needed (see Gülerk, Özgür, Irlenbusch, and Rockenbach 2006) and a larger percentage is needed to keep up a sanctioning regime. The third lesson is that the decision to sanction others in a social dilemma situation can be governed by various goal-frames. A majority of those who are in a normative goal-frame with regard to cooperation are willing to sanction defectors (and only defectors) either in a normative goal-frame (when the feeling of unfairness of retaliation are moderate), or by switching to a hedonic goal-frame when these feelings are strong. In the latter case, their punishment will be more severe. But those in a gain goal-frame (when it comes to cooperation) will also be affected by the intensity of feelings about unfairness and retaliation. When these feelings are moderate, they are likely not to sanction at all (to save the cost) or to sanction when they can gain status by doing so. When the feelings are strong, they are likely to sanction defectors only. Thus, the sanctioning mechanism that is brought about by people in a normative goal-

frame is very important to the production of collective goods. It can enlist even uncooperative people to participate in sanctioning mainly defectors which, in turn, is very important for achieving the socially desirable result of norms.

The fourth lesson is that it will not do to simply assume that most people (the cooperators) have and a minority (the defectors) does not have a hardwired preference for strong reciprocity (i.e. reciprocating positive and for negative behavior of others). There probably is a taste for fairness. However, if it were only a matter of stable preferences (as claimed by Fehr and his co-authors), then we would not get such differences in situation or role: Community game versus Wallstreet game, or strongly caring for fairness in some situations (such as being a responder in an ultimatum game) and mainly wanting to strategically appear fair in another situation (such as being the offerer in an ultimatum game). A goal-framing process in which goals are situationally made focal or pushed into the background seems to come much closer to what is going on with cooperation and sanctioning.

Much of the evidence discussed so far comes from experiments. How realistic are these results? Can these goal-framing effects also be found in real life? In order to illustrate the validity of goal-framing effects, I will discuss next in some detail research we have done on the question of unpaid overtime in organizations.

#### **EXAMPLE FOR SOCIAL INFLUENCE ON GOALS AND ONE-SIDEDNESS OF DECISIONS: WORKING OVERTIME**

In the following section, I will show that sustainable cooperation can be achieved if joint production and sanctions are institutionally put in place. For this, I use our research on unpaid overtime. Why would people work overtime if they do not get paid for doing so? There may be a variety of reasons, such as enjoying one's work, or increasing one's chances of promotion, or simply feeling an obligation to finish a given project in time. Unpaid overtime

is a good case to compare the workings of goal-frames for the contribution to a collective good. We studied unpaid overtime work in some detail (Lindenberg, Glebbeek, Echtelt forthcoming, Echtelt, Glebbeek, Lindenberg 2006), and I will present the most important aspects of this study.

Many people in the Netherlands work overtime. A recent survey (OSA, 2003) reports that in the Netherlands, 25% of the Dutch labor force works paid overtime and 27% put in unpaid overtime. As in most European countries, Dutch employees spend more hours at work than they say they prefer to spend. Even when the reduction in income is taken into account, a large part of the working population prefers to work fewer hours than the actual length of their normal working week (Bielenski, Bosch and Wagner, 2002; Smulders and De Feyter, 2001; Fouarge and Baaijens, 2003). So many don't do what they would prefer to do. Why would employees work more hours than they like to? It cannot be income-leisure time considerations because we are talking about unpaid overtime work. Neither can it be the lumpiness of labor supply in which the job with the exact preferred number of hours is unavailable. In the Netherlands a new law, the Working Hours Adjustment Act ('Wet Aanpassing Arbeidsduur') has been introduced in 2000 which gives employees the right to reduce or increase their contractual working hours. Generally, organizations comply with this law. However two years after the implementation of the law approximately one quarter of the Dutch employees still report that their actual working hours do not match the preferred working hours (Fouarge and Baaijens, 2003). Why do so many employees still work more than they would like to, even if they can choose fairly flexibly the number of hours they would like to work?. Why are so many employees (27% of the Dutch labor force) even willing to donate working time if they prefer to work fewer hours? From the point of view of a theory that works with preferences, constraints and maximizing utility for realizing preferences under given constraints, this is a puzzle.

### **A possible answer**

For the answer to this puzzle, let us look at the goal-frames. What goal-frames do is to put a torch light on certain aspects of the situation, to mobilize certain chunks of knowledge and memory, and to activate certain evaluation and decision criteria. The important point here is that when somebody is asked about preferred working hours, the goal-frame is likely to differ from the goal-frame in which one decides to work longer hours. What is the most likely goal-frame of an employee when asked about preferred working hours? When asked whether employees want to work fewer or more hours, they are also told to assume that hourly wages and the labor supply of other household members remain unchanged (Fouarge and Baaijens 2005). Given such a question, it is likely that employees are in a hedonic goal-frame in which they actually answer the question: what is my actual number of hours of work and what number would make me feel better? What comes to mind then are hedonic aspects of work and of leisure time (such as how interesting or how tiresome the work one does is; how boring it is to sit at home, or how exciting it is to spend time with one's partner). Or, employees are in a gain goal-frame in which they actually answer the question: what is my actual number of hours of work and what number of working hours would be optimal for my income and job advancement compared to advancement outside of work (such as time spent on home improvement or advancing in sports performance)? What comes to mind in this goal-frame are aspects of resource gain and loss in the sphere of work versus the spheres outside work.

### **Small decisions**

What goal-frame is likely to drive the decision to work unpaid overtime? The most likely circumstance leading to the decision to work overtime is that something has to be finished that did not get finished in regular time. Employees may feel that they should not let others (colleagues, customers, supervisors) down who depend on the task being finished. If true, the

decision to work overtime would be mainly based on a sense of obligation, generated in a normative goal-frame. There are a number of interesting aspects about such a decision. First of all, it considers aspects that relate to the task (what is necessary?) and to the obligation to others (a normative concern). Hedonic aspects (say, that one is tired or that it would feel good to put up one's feet and read the newspaper) and aspects of resource advancement (say what will I get for doing this, or I repair the roof or work out instead) are pushed into the cognitive background. Thus there is a very different decision criterion involved when one decides to work overtime than when one is asked about the preferred number of hours. Second, the decision to work overtime is a *small* decision that does not involve a larger pattern of allocating time. Of course, it may mean staying for the evening, but more often it is likely to be just for a few minutes or half an hour extra. Working a certain number of additional hours per month is thus likely to be the cumulative effect of many small decisions, each of which is unrelated to the consideration of weekly or monthly working hours. This process of small decisions creates *cumulation goods*, i.e. goods (or bads) about which one never made a decision and which still are the product of one's decisions (Lindenberg, 1986).

Which circumstances are most likely to draw people into a normative goal-frame? Recent case-studies suggest that modern, post-Fordist organizations, such as knowledge intensive organizations, are organized in terms of projects, each of which has a deadline (Lindenberg 1993 and 2003), and employees are responsible for meeting the deadline, and they get considerable autonomy to work on the project, alone or in a team (Cappelli et al, 1997; Sennet, 1998). This kind of work organization creates an important combination of discretion and severe externalities (i.e. not meeting the deadlines and targets has serious consequences for others). As a result, people are likely to feel obliged to finish a project and thus the normative goal-frame is likely to be dominant when work is organized in terms of projects and the deadlines, responsibility and autonomy that come with project organization.

In short, people may have hedonic, gain or normative motives for working overtime, all at the same time. However, goal-framing theory would argue that one of these three goals (the normative one) dominates the other two, i.e. it is the goal-frame and the other two goals are in the background.

### **Test of the theory**

There is a way to test this explanation even though we do not have direct data on goal-frames in organizations (Lindenberg, Glebbeek and Echtelt forthcoming, and Echtelt, Glebbeek, Lindenberg 2006). One can argue that proxies of the goal that dominates should explain much more of the variance of overtime work than the proxies for the other two goals. We interpret each goal as a source of motivation and see how strong the goals are relative to each other. Work can be fun and that may entice people to work overtime (in a hedonic goal). Thus we measure the hedonic motivation with 5 items such as "I draw motivation from my work itself, not from the pay", "When I am involved in my work I do it because I want to not because I have to",  $\alpha=.68$ ) and use it as a predictor of unpaid overtime work. Overtime work may also be a means of advancement that motivates people to put in extra time in order to get ahead in their career, especially if they are in a gain goal-frame. Not paying attention to claims on one's time from outside the organization, the willingness to work late and simply to get the work done, are likely to be used by the management as an indicator for commitment and capability that suggest advancement (Landers, Rebitzer and Taylor, 1996). We measure this gain motivation for unpaid overtime work with 6 items such as "colleagues who work more hours than I have a higher chance of being promoted", "the more hours I work, the better I get at my work",  $\alpha=.83$ ) and use this also as a predictor for unpaid overtime work. Finally, the normative motivation can be indirectly measured by the conditions that are hypothesized to foster and maintain a sense of obligation. The managers of various groups in organizations were asked to indicate whether the employees in this group are embedded in

project teams (“joint production”), whether for their tasks they have to use intelligent effort in terms of learning and in terms of creativity (i.e. their contribution matters), whether they have autonomy and responsibility and have to meet personal targets, and whether they are confronted with strict deadlines (for the six items  $\alpha=.84$ ). Sanctions are in place to stabilize the normative goal-frame. They are informal but clearly present in terms of criteria (personal targets, deadlines) and individual accountability (disapproval from supervisors and teammates for failing to meet criteria). Informal sanctions can be very effective (see for example Maslet (2003).

In addition to the organizationally induced and stabilized normative goal-frame, we included *educational level* (11 categories, varying from no preliminary education to PhD, MD) as a proxy for a dispositional reinforcement of a normative goal-frame. We do this because it had long been suggested that achieved educational level is also a signal for self-discipline and the ability to be guided by projects (Spence 1973) and that it therefore taps into people’s chronic supports of a normative goal-frame. Because education is also often a proxy for position in an organization, and because we wanted to focus on education as a signal for dispositional support of a normative motivation, we entered education into the regression analysis as controlled for position.

These data were gathered from data from the 2003 Time Competition Survey (Glebbeek and Van der Lippe, 2004), which contains information on a large sample of employees in 30 organizations in the Netherlands. These data were collected by means of a multi-stage sample of 1114 Dutch employees from 30 employing organizations in the Netherlands (see Echtelt, Glebbeek, and Lindenberg 2006 for more detail).

A number of control variables were included in the analysis in order to take out the effect of other possible factors that influence working overtime. First of all, we controlled for work pressure (with 3 items, for example "how often do you have to work extra hard to get

something finished", "do you have a lot of work to do?" "Do you have to work fast?").

Second, we controlled for whether an employee has a *supervisory position*, because independent of the way in which work is organized, a supervisory position (40% in our sample) may increase the responsibilities that are imposed on the employee and therefore increase the number of overtime hours. Third, we controlled for *sector* (0 = non profit sector, 1 = profit sector). Fourth, we expect that the household situation of the respondent can influence overtime and we therefore controlled for the *percentage of household tasks* an employee takes care of and for having *children* under the age of 12. Fifth, we controlled for *age* and *gender*. Finally, we controlled for *wage-rate*.

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
<b>Normative</b>	.40	.42	.40	.27	.26
<b>Motivation</b>					
<b>Hedonic motivation</b>		.13	.14	.13	.13
<b>Gain motivation</b>			.13	.10	.09
<b>Education</b> (controlled for position)				.27	.24
<b>Controls</b>					<b>xxx</b>
<b>R<sup>2</sup></b>	.17	.19	.20	.30	.34

Table 1. Regressions of three kinds of motivation, education and controls on unpaid overtime work (hours), with standardized coefficients

We can see from Model 3 in Table 1 that the normative motivation is by far the strongest source of motivation for working unpaid overtime. It can thus be taken to be the goal-frame, with the other two goals in the background. This is quite amazing from the point of view of incentive-based theories of work motivation. Career advancement as a motivator does not

come close to the normative motivation, and neither does the much heralded pleasure derived from one's work. From Model 4, we see that education as the proxy for a dispositional normative motivation takes, as expected, a good deal away from the effect of the organizationally induced normative motivation but also adds a good deal to the explained variance. This means that the effect of the total normative motivation (organizationally induced and dispositional combined) is huge in comparison to hedonic and gain motivation and the controls. The control variables (Model 5) jointly also have a modest effect on unpaid overtime, and among the control variables, it is work pressure (i.e. lots of work and pressure to finish it) that contributes most to the remainder of the explained variance (not shown).

### **Overtime and well-being**

At first blush, it might seem desirable to have people in a normative goal-frame at all times because then they are most sensitive to the expectations from others and least egotistical. However, from a modular point of view, every goal-frame will lead to one-sided behavior because it focuses only on some aspects and neglects a large number of other aspects. Even though the normative goal-frame is apriorily the weakest, institutional supports can make it so strong that it leads to one-sided behavior. A strong normative goal-frame has clear social advantages but will also lead to the neglect of important aspects. If the decision to work overtime is not made on the basis of weighing all pros and cons but on considering only a few aspects (namely what needs to be done and what effect does not getting things done have on others), then it would not be surprising to see that people seem not to consider negative aspects of overtime work for their own well-being. There is evidence that overtime work leads to psychological problems and perceived harmful consequences from the inability to combine work and care. People feel more fatigued, experience more time pressure and more interference from the job at home, such as not being able to let go thinking of job related problems (Gareis and Barnett, R.C. 2002); Jansen, 2003; Meijman & Mulder, 1998; Saito

1999; Van der Hulst & Geurts, 2001). Overtime also seems to create a higher need for recovery exactly when there is less time to satisfy this need (see Jansen et al. 2003). With regard to physical problems, the picture is somewhat more complex. Physically healthy people might be less restrained by their health to work overtime, so that the causal relationship is the other way around (see Newcombe 2007). However, there seem to be enough negative physical health consequences from overtime work that the major causal relationship is from overtime to health, rather than the other way around. For example, a meta-analysis of international studies on overtime conducted by the US Department of Health and Human Services (Caruso et al 2004, p.27), comes to the conclusion that in 16 of the 22 studies that were examined "overtime was associated with poorer perceived general health, increased injury rates, more illnesses, or increased mortality." (see also Dembe, Erickson, Delbos, and Banks 2005). Some of these effects may be due to the fact that overtime work also decreases the time people have to engage in regular sports activities and because people are more fatigued at home (see Dahlgren 2006) which also reduces important health maintenance behavior.

If improving one's condition is the highest goal and if people are generally one-sided with regard to the aspects they improve, the question arises whether they have the ability to arrive at some balance between the various goal-frames. In other words, are people simply subject to the circumstances that trigger a particular goal-frame and its concomitant one-sided decision or can they influence goal-frames even though they cannot directly choose them? There is one-sidedness in yet another sense. The different apriori strength of goal-frames may make it difficult not to slip into a hedonic goal-frame when strong external supports for the other goal-frames are lacking. In the next section, I will argue that for both cases of one-sidedness, human beings are equipped with the ability to counteract one-sidedness through

various strategies of self-regulation. As we will see, the ability to self-regulate is by no means the same for every one, and social circumstances have a strong influence on this ability.

## **GOAL-FRAMING AND SELF-REGULATION**

The three goal-frames are so high in the hierarchy of goal systems that choice processes fall within them. This means that they are not directly subject to being chosen at will. Rather, as I described above, they are subject to the more or less automatic influence of all sorts of cues from the environment (such as being observed) and from the inside (such as being very hungry). Much has been written about free will, and I will not go into this discussion here. More useful for the present purpose is the concept of self-regulation (see Baumeister and Vohs 2004) and that goes directly to the heart of social rationality. Individuals are endowed with the ability to self-regulate. This means first of all that they are able to pursue goals in the sense that they can monitor the degree to which they have achieved a goal that is presently focal and react to this information in such a way that, when they are satisfied, they turn to another goal, or, when not satisfied, they take action to approximate goal achievement even better (see Carver and Scheier 1998). This can be taken to be the heart of the intuitive meaning of rationality. However, self-regulation goes a lot further and therefore the meaning of rationality must also be expanded.

There are also automatic responses to cues from the environment and from inside the individual that could interfere with the focal goal. For example, if somebody's focal goal is to concentrate on writing a paper and if from the environment a strong smell of fresh coffee hits the writer's nostrils, there may be an automatic reaction of yearning for coffee. This may displace the goal to concentrate on writing or disturb its achievement in some way. People have abilities to deal with such situations, which greatly extends the scope of self-regulation. They cannot directly choose not to be affected by the smell of coffee or some other internal reaction. Rather, they can intervene in the environment or try to distract their attention or

conjure up thoughts that help deal with the distraction. For example, the writer may close the door to stop the coffee smell from coming into his room, or, in order to distract his attention, he may try to focus on the smell of the fresh ink emerging from the brand new book on his desk, or he may conjure up the stern image of the editor for whose journal the paper has to be finished on time.

In the language of this paper, self-regulation means first and foremost the indirect influence on the stability of goal-frames. And here, the *apriori* strength of the goal-frames is very important. Goal-frames cannot be directly chosen but they can be made more likely or more stable by changing the environment, by distraction, or by conjuring up images. When certain hedonic goals in the background of a normative goal-frame become activated through changes in the environment or the internal states of the individual, they may weaken the normative goal-frame and activate self-regulating activities that flank the normative goal-frame. The same may happen with the gain-goal frame (oriented towards the longer run and possibly distracted by short-term goals in the background). It may also apply to gain goals in the background of the normative goal-frame, as when a pharmacist is tempted to sell pills to a customer that are not quite as effective but that wield a higher profit (see Cancrinus-Matthijsse, Lindenberg, Bakker, and Groenewegen 1996). In the literature the conflict between impulse and self-constraint has been subject to serious study for a long time (see for example Carver 2005). With the three goal-frames, we have a finer distinction than just impulse versus self-constraint and more direct input from new findings in cognitive psychology and neuro-science. People's ability to function in their daily lives strongly depends on their ability to regulate the goal-frames they are in (and regulate subgoals within a goal-frame). The ability to regulate one's emotions also belongs to this realm of self-regulation. Emotions such as fear or anger make it difficult to sustain a gain or normative goal-frame and they can be socially very disruptive. Emotion regulation is a crucial element

in social competence (see Denham et al 2003, Schultz, Izard, Ackerman, and Youngstrom 2001) and lack of it can have severe long-term consequences in terms of occupational downward mobility, erratic work lives, and problematic partner-relationships (see Caspi, Elder, and Bem 1988). The inability to self-regulate hedonic goal-frames also makes people smoke and eat more than they would like to, lowering their subjective well-being (see Stutzer and Frey 2007).

The point is not that successful self-regulation does away with the hedonic goal-frame. Not showing emotions when it is called for (say when your mother dies) is socially also inadequate. Some people have managed to stabilize their normative goal-frame to such an extent that they have to plan times for hedonic experiences (see Kivetz and Simonson 2002). Conversely, temptations are not always a danger for the stability of a normative goal-frame. It has been shown that being exposed to temptations can actually strengthen the normative goal-frame (see Fishbach, Friedman, and Kruglanski 2003), so that normative goal-frames in very sheltered environments may be particularly susceptible to the rare intrusion of hedonic opportunities. The most successful self-regulation is one that allows a balance, allows people to flexibly switch between goal-frames so that they can hold on to their own goals and also be responsive to the demands of the different situations (see Spinrad et al. 2006). As we will see presently, people are highly dependent on social circumstances for the degree to which they can successfully self-regulate. In this sense too, rationality is thoroughly social.

### **Self-regulation tools**

The sociologically most interesting tools for self-regulation are those that pertain to escape and to calling on powerful aids. Let me briefly deal with each one, in order.

### *Escape as self-regulation*

One of most basic forms of self-regulation is to remove oneself from unwanted sources of influence. One important kind of possibly unwanted influence is "cognitive load". To concentrate on a train of thought is taxing and needs cognitive processing capacity. People confronted with a heavy cognitive load are less able to plan and to process complex information, which is especially important for a gain-goal-frame (see Roch et al 2000). Thus, when people find others too noisy or taxing they will try to remove themselves in order to be by themselves for while. However, social circumstances may make it easier or more difficult to do that, and to that degree, social circumstances will affect self-regulation. For the normative goal-frame, cognitive load is also important. For example, Van den Bos, Peters, Bobocel, and Ybema (2006) found that people with a cognitive load did not recognize easily when the situation is unfair in their favor, which can lead to troublesome social situations.

Other important unwanted influences come from the fact that the goal-frame of people in the surrounding also influence the stability of one's own goal-frame ("goal-frame resonance" see Lindenberg 2000, and "goal contagion", see Aarts, Gollwitzer, and Hassin, 2004). For example, in a group of peers who seek fun and entertainment (a hedonic goal-frame), it is difficult to keep up a normative goal-frame. If one wants to keep up a normative goal-frame one is likely to leave the group, if possible. If one waits too long, the contagion will have progressed beyond the point at which self-control is likely to make one leave the group. For good or bad, the company one keeps may thus have a lot to do with the goals one pursues. The same effect has been observed with moods (Neumann and Strack 2000). Goals and expectations are influenced by one's mood. If one is in a group of people who are in a bad mood, one's own mood is likely to be negatively affected, and one would have to remove oneself early on from this group in order to escape this influence.

Some influences are difficult to escape. For example, in many western countries, it is difficult to ignore sexually enticing billboards. People who because of their (religious) subculture or their personality are particularly affected by these billboards will have a more difficult time to regulate their hedonic goal-frame. But more importantly, there are whole classes of society that have a difficult time escaping unwanted influences. For example, research shows that people from lower income classes have more difficulty dealing with reasoning that is related to a gain-goal frame and necessary for handling economic decisions (such reasoning in terms of costs and benefits and ignoring sunk costs, see Larrick, Nisbett, and Morgan 1993). People from lower SES backgrounds are also more frequently confronted with negative life events, at least a good deal of which are likely due to failures of self-regulation (see Brady and Matthews 2002). Such failures are not just concerning the gain goal-frame but also the normative goal-frame. For example, lower class youth has been found to have much more trouble recognizing general social norms (see Parker and Fischhoff 2005).

Just how powerful these effects are, can be demonstrated with an experiment we performed, concerning the norm of stealing (Keizer, Lindenberg and Steg, forthcoming). We placed a very noticeable envelope with a transparent window in a public mailbox, but we did it in such a way that it stuck out and people walking by (or posting a letter) could clearly see what was inside. What they could see was a five Euro bill peaking through the window of the envelope. The question was how many people who passed the mailbox would go so far as to take the envelope with them. If they left it, or if they stuck it into the mailbox, it was counted as ok and if they took it with them, it was counted as stealing. What we varied was just a small detail: in one condition, we left the mailbox as it was. In another condition, we covered it with graffiti. The assumption was that graffiti would create the impression of an environment with people do not care much about general social norms. This would presumably weaken the normative goal-frame of the passersby. The results showed that

without graffiti 13% of all passersby (N=151) took the envelope and that with graffiti this percentage more than doubled (27%). Could it be that the people read the graffiti quite differently, namely as a sign that the police does not enforce laws around here and that one could steal with impunity? In order to test that possibility, we repeated the “temptation” condition, not with graffiti but with trash around the mailbox (N=163), which we assumed would indicate the same lack of concern for general social norms in this environment. However, since the antilittering ordinance in Groningen (where the experiment was conducted) is not enforced by the police, littering could not signal that stealing is tolerated by the police. The result of the second experiment corroborated the first finding and also the high magnitude of the effect (25% with trash compared to the control condition of 13% mentioned before). Thus, if one lives in an environment with many indicators of low concern for acting appropriately, there is a risk that self-regulation will be impaired simply because of disorder in the social environment.

### ***Calling on powerful aid as self-regulation***

*Managing Contagion, processes of self-evaluation, and identity.* As we have just discussed, other people exert a strong influence on a person but even though this can be a source of serious trouble, it can also be an aid for self-regulation. The processes of goal and mood contagion can be used to one's own advantage by joining partners and groups that support, rather than undermine a personally adaptive pattern of goal-framing. For example, a person who would like to strengthen his gain goal-frame can choose to mingle more with people who are known to have a strong gain goal-frame. He can also try to work his way into contexts in which periodic rewards are very high, as such rewards automatically strengthen a concern with the growth of resources. Thus, CEOs who want to motivate themselves to stay working rather than enjoy life (even though they are already very rich) do well to keep company of like-minded others and to seek very high rewards, not because they are hooked

on money, but just the opposite, because they fear that money might stop motivating them. If a person has the choice of institutional environments, then he may also choose environments that support future orientations, such as private property (which allows the calculation of external effects on one's future self).

Social cues, processes of goal and mood contagion and the fact that goal-framing is always very selective with regard to the aspects that are focal, imply that individuals don't maximize "well-being" but are concerned with different aspects that contribute to well-being. This can potentially create the problem that a person is pushed in all directions by the present company, by changing moods, by social cues (see Sheldon and Kasser 1995). In a way, goal-frames represent different selves, and the question is how they relate to each other. The mechanism that reduces this danger of fragmentation is identity formation, i.e. the development of an (ideal) self with some internal consistency in what one values, how one would like to relate to others, and for what one can be proud of oneself is a way to regulate one's own reactions over time in such a way that they are predictable and the source of self-esteem and a sense well-being (see Suh 2002, Steverink and Lindenberg 2006). Aspects of the ideal self can influence the way one feels, the way one relates to one's resources and the way one deals with appropriateness. Thus, they come into every goal-frame but from a common core and thus create some link between the different "goal-frame selves". In one's mind, the self can interact with itself (what Greenwald and Breckler [1985] called "inner audience") and it can evaluate itself according to the standards that have grown to be part of the ideal self in response to positive or negative feedback from the environment. It is thus a guiding process for self-regulation (Barkley 2004, Gilbert (2003), adding compatibility constraints to goal-framing. For example, giving in to a gain goal in the context in which a normative goal is asked for may not happen because "I am not the kind of person who does things like that".

Self-regulation can stabilize the self-evaluation by influencing the evaluative feedback from others. Goffman has worked out this aspects of self-regulation in terms of what he called impression management (see Goffman 1959 and 1961, and Schlenker 2003). The presentation covers aspects such as physical appearance (dress, hair, posture) and facial composure, but also proper attention, orientation and conversational focus, and even clear signs of being a purposeful person. Take an example of the latter behavior. Imagine a person walks in the street and realizes that he has forgotten his bag in a store a block behind him. It is unlikely that he will just turn around and walk in the opposite direction, looking as if he had no purpose walking in either direction. Rather, his expressions and gestures will indicate that he forgot something before he turns back (for instance, he may briefly put his hand to his forehead, visibly shake his head, stop for a moment and then reverse his direction). Purposive behavior and some consistency between the goal-frame-selves is in this sense strongly stabilized by social interaction. It is not just something an individual does, it is also something others' expect to see and to the lack of which others react with informal sanctions (see Gigerenzer 2002). The idea of impression management has long roots in sociology (see Cooley 1922) but was formerly less focused on the formation and maintenance of a stable self through self-management. Social networks can thus be far more than a source of information or social support in times of trouble; they can be important stabilizers of one's goal-frames and identity. Lacking social networks or having the wrong social networks can thus also impair one's self-regulatory abilities.

The importance of being confirmed by the social environment for what one values and what one does can be linked to the evolutionary importance of being and staying accepted in groups and the likelihood that our brain developed to be highly sensitive to the feedback from others, so as not to be rejected (Dunbar 2003, Baumeister and Leary 1995). For this reason too, the confirmation from others is related to one's performance. A modest

negative feedback, is useful as a corrective for performance (Buckley, Winkel, and Leary 2004), but a feeling of exclusion from or rejection by the group seemingly leads to a decrease in reasoning ability (Baumeister, Twenge and Nuss, 2003), a decrease in self-regulation (Twenge, Catanese and Baumeister (2003), a decrease in prosocial behavior (Twenge, Baumeister, DeWall, Ciarocco, and Bartels 2007), and an increase in aggression (Twenge, Baumeister, Tice and Stucke 2001). Seemingly, exclusion or rejection create symptoms that are similar to physical pain and also impair functioning as does physical pain (see Eisenberger, and Liebermann 2004, DeWall, and Baumeister 2006, and MacDonald and Leary 2005). In short, one's self-regulatory abilities are essential for one's performance in social life but they are also highly dependent on the influence the social environment has on somebody's self-evaluation. Thus, for example, children who feel rejected in school will perform even worse and are likely to develop problem behavior. Miraculously, when, due to a change in context, rejection ceases, their problem behavior will cease as well (see Veenstra, Lindenberg, Verhulst, and Ormel, forthcoming). Similarly, system changes in performance standards (say with regard to publishing in universities) are not just likely to affect performance (making people publish more) but are also likely to negatively affect the self-regulatory ability in those who cannot easily adapt to the new standards and who therefore experience a threat to their former standing. Research on such side-effects of changing standards of performance is largely lacking.

*The important role of significant others.* Not everybody is equally important for one's self-regulatory abilities. In the course of their development, people acquire significant others (such as mother, partner, close friends, religious leaders) whose opinions and standards weigh heavily and who can be called upon especially to strengthen the normative goal-frame. Of course, one of the most important significant others are the direct socializers in early childhood, and especially the mother. They represent norms and standards and in interaction

with them the moral self, i.e. the normative goal-frame and its internal stabilizers, is developed (see Gralinski and Kopp 1993, Kochanska 2002). However, the significant others are not just important for the formation of the moral self (and for the substantive norms that are internalized), but also for the inner dialogue that keeps going on. They remain in the person as a private audience to which the self turns and virtually interacts (see Baldwin and Holmes 1987). Thus, a significant other does not even have to be present to influence one's behavior. Experimental research shows that when certain significant others have been made salient in somebody's mind, their norms will influence behavior quite strongly (see Baldwin, Carrell, and Lopes 1990; Baldwin and Holmes 1987; Fitzsimons and Bargh 2003; and Shah 2003a, 2003b). In a recent experiment (Stapel, Joly, and Lindenberg forthcoming), we could show, in addition, that significant others also influence the readiness to follow social norms in general, not just specific norms. We primed subjects with a scrambled sentence test. In one condition, the task was designed to raise the salience of various significant others (mother, family, colleagues, teacher, parents, father, team members, roommates, and friends), in the other conditions, the task was neutral. Subjects were not aware that they were being primed with significant others. Next, in a seemingly unrelated task, we had two conditions, a library condition and a control condition. In the library condition, participants were asked to carefully study a picture of an empty library for half a minute. In the control condition, participants continued right away with the next task. The next task measured the dependent variables, the perceived importance of library specific norms (for example "*I believe that it is important to be silent in a library*"), the perceived importance of norms in general ("*I believe that norms and values are important*"), and norm conformity (*I want to conform to well established social norms, I believe that it is important to conform to well established social norms and I always try to conform to well established social norms*). The results show a substantial and highly significant increase in the subjective importance of the library norms

(in the library condition) and of the importance of norms in general and of conformism (in library and control conditions) for those (and only for those) who had been primed with significant others. Thus having significant others on one's mind helps stabilize the normative goal-frame (see also Joly, Stapel, and Lindenberg 2008).

Shah (2003a) has shown that thinking of significant others can influence a person's goals, in the sense that goals attributed to the significant other activate the same goals in the attached person, and also in the sense that goals the significant other is thought to disapprove of are inhibited. For example, Shah could show that individuals primed with father-related words, were more committed to goals the father valued and also performed better at reaching these goals, the more so, the closer they felt to the father. Conversely, the closer they felt to the father, the more goals he disvalued were inhibited for them. Shah (2003b) also showed that the effect of significant others on one's behavior does not run only via goal activation or inhibition, but also via self-appraisal and the emotional response to goal achievement or achievement failure. For example, if your mother thinks you can achieve a goal, then thinking of your mother will positively affect the appraisal of your own ability to achieve it. The converse holds for negative expectations. In addition, the more important the mother finds the goal, the more satisfied you will be by achieving it, and the more dissatisfied by a failure to achieve it (see also Baldwin, Carrel and Lopes 1990). Self-regulation thus involves a "psychological presence", an inner meeting and dialogue of the self and with significant others. Persons who have significant others who believe in their abilities and who find their goals important have a definite self-regulatory advantage in pursuing these goals. Yet having or not having significant others for self-regulation is often subject to self-regulation itself. For example, it has been found that people motivate themselves to achieve a valued goal by seeking out significant others that are successful at achieving this goal as role models (Lockwood, Joran, and Kunda 2002).

Needless to say, whatever disturbs this process and the flanking aid of significant others will disturb self-regulation, thus lowering adaptive behavior and thereby the individual's well-being. For example, Lockwood (2006) showed that for women, it is important to have female role models. If such role models are not around, they cannot be used for regulating one's own motivation. Much can go wrong in this process, with long-term consequences. For example, Gestsdottir and Lerner (2007) show how important self-regulation is for a positive development of youths. Yet, children may have systematic disadvantages with regard to self-regulation. An important case in point is attachment problems in early childhood due to aggressive parenting. Children with attachment problems will grow up with a deficit in significant others and thus a deficit in self-regulation (see Calkins 2004). However, this problem is not randomly distributed but occurs more in low SES families (see Pinderhughes, Dodge, Bates, and Petit 2000; Raikes and Thompson 2005; Shaw, Owens, Giovannelli, and Winslow 2001). Thus children from low SES backgrounds run the risk of lower self-regulation capacity, also in later in life, and thus bear the risk of lower well-being (see also Hart, Atkins, and Matsuba 2008). Note that self-regulatory ability has an impact on problem behavior and performance quite different from general intelligence, so that it is not simply a matter of a negative correlation between SES and intelligence (see Ayduk et al 2007; Blair and Razza 2007). Lack of self-regulatory ability is also likely to affect status (see Bear and Rys 1994), so that we get a vicious cycle that may trap people in a low status position. A similar effect can be expected for the children of immigrants. They are better integrated into the new culture than the parents are and are often confused about who their significant others are. This negatively affects their self-regulatory abilities which makes it more difficult to break out of low status positions.

An important consequence of this view is that in many cases changing individual incentives will not work. For example, it is by now well-known that the interventions directed

individually at problem youths (such as incarceration, probation, shocking youth by the experience of brief incarceration or by having criminals tell them about the horrors of prison [“scared straight”], court-ordered school attendance) don’t work (see Kazdin and Weisz 1998, Lipsey and Wilson 1998, Sherman et al 1997). Where the traditional rational choice models would assume that negative incentives (such as incarceration or shock experiences) steer behavior away from trouble, the social rationality approach, with a central place for self-regulation, would look first of all at the functioning of significant others for self-regulation capacity. Incarceration is likely to increase self-regulation problems because it reinforces the importance of delinquent peers and decreases the importance of adults in authority as significant others (see Huey, Henggeler, Brondino, and Pickrel 2000). What is likely to help is to improve the positive role parents and teachers can play as significant others by focusing intervention on teacher and family functioning (Kazdin and Weisz 1998) and to coordinate the role teachers and parents can play as significant others (Eddy, Reid, and Fetrow 2000). This also involves communicating clear rules and expectations that emanate from the significant others (see Sherman et al 1997, chapter five).

Changing one’s ways in order to become a better significant other for somebody else requires that, for example, a parent improve his or her own self-regulation by accepting therapists as significant others (Kazdin and Whitley 2006). Self-regulation is a socially embedded process and thus needs continuous social support. Thus, it also helps to make the youths more susceptible to the influence of relevant significant others. For example, training in cognitive problem-solving skills (prominently including perceiving how others feel and anticipating the effects of one’s behavior on others) seems to be quite effective in reducing antisocial behavior in (pre)adolescents (see Kazdin and Weisz 1998). Note that this reasoning is not just based on the workings of social influence or “social integration” (as social control theory would have it, see Hirschi 1969). For example, the attempt to change youth violence

by redirecting high-risk youths through enriching their recreational activities in the peer group context (for example by midnight basketball games) did not work (Elliot and Tolan 1999, Patterson and Yoerger 1998). Such interventions do not affect the workings of significant others that aid self-regulation for the sake of pursuing societally legitimate goals.

This reasoning can also be applied to exporting Western culture and institutions into non-Western countries. Given the importance of social embedding, force-fed cultural change is likely to have problematic effects on the self-regulatory ability of the native population. In such a context, Western culture is likely to devalue significant others (say parents, teachers, religious leaders) in the non-Western country by exposing them as “backward” or uneducated or as supporting wrong ideas and ideals. These effects are probably not inevitable if they are known and if alternative supports for self-regulation are developed or offered. But a purely rational choice institutional approach would not even consider effects of institutional diffusion on self-regulation and thus possibly lowered levels of adaptive behavior and well-being.

### **THE IMPORTANCE OF CONSIDERING PHYSICAL AND SOCIAL NEEDS**

So far, we have traced individuals’ well-being to the improvement of their condition, the goal-frame dependent one-sidedness with which they do this, and the possible balance achieved through various processes of self-regulation. However, one important question has not yet been discussed: what is it that individuals try to improve in a particular goal-frame? In order to answer this question, we need to establish a link between well-being and substantive

goals. This link has been worked out over the years by a variety of scholars under the name of “social production function theory” (SPF theory)<sup>6</sup>.

Since we have argued that the highest level goal is to improve one’s condition, we emphasize the view that human beings are active and purposive (sometimes called "agentic"), and that they understand themselves and others in terms of goal pursuit. In each goal-frame, means are chosen for certain ends and means are chosen to influence the stability of goal-frames. Yet, the distinction between goals and means is relative. A means can become a goal when it is not yet at someone’s disposal. For example, people earn money in order to buy goods with which they can create a good time (say, a game, a sailboat). Looked at in this way, means-end relationships lead to a hierarchy that is structured like a semi-lattice in which each point in the hierarchy may be connected to more than one point higher up in the hierarchy (see also Broadbent 1985). For example, money does not only buy food but all sorts of other means to satisfy a variety of higher-level goals.

From the point of view of linking goal-directed behavior with well-being, it makes sense to look at universal needs as the top of the hierarchy (Stigler and Becker 1977), rather than something like an “ideal self” (Carver and Schreier 1998) or life goals (see Royce and Powell 1983). Needs activate goal states for their satisfaction and are thus goals themselves. In turn, human well-being can be seen as the result of need satisfaction (Lindenberg 1996). A person whose basic needs are unfulfilled will have a low score on well-being. This view is by now widely shared (Deci and Ryan 2000, p.229; Lyubomirski, King and Diener 2005; Maslow 1971, pp.379ff; Baumeister and Leary 1995, p.498).

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<sup>6</sup> See for example Lindenberg 1996, Ormel et al 1999, Steverink, Lindenberg, and Ormel 1998; Nieboer and Lindenberg 2002, Nieboer, Lindenberg, Van Bruggen, and Boomsma 2005; Steverink and Lindenberg 2006

What are plausible candidates for universal needs that would be most relevant for the top of such a hierarchy? In a means-end or “production” hierarchy approach, one can distinguish between two kinds of needs (see Lindenberg 1996). First of all, there are needs that pertain to the ability to pursue goals in the service of need satisfaction, called “production needs”, such as autonomy, competence and safety/security. These are “meta-needs” that deal with the ability to satisfy substantive needs. Secondly, there are the highest-level substantive needs. Given the co-evolution of human physical functioning with culture, resulting in the development of a social brain (see above), it makes sense to focus on both physical needs (such as comfort and stimulation) and social needs (such as status, behavioral confirmation and affection). From an evolutionary point of view and given the importance of the improvement goal, it is plausible to assume that there was a selective pressure for linking basic abilities for improvement and basic aspects of physical and social functioning to need states. There is no room to go into detail with regard to the description and empirical evidence of these needs. Rather I will briefly turn to their importance for sociological research.

## **RELEVANCE FOR SOCIOLOGICAL RESEARCH**

It stands to reason that situations, in which physical and social needs can both be satisfied, are particularly important for well-being, especially if the satisfaction of one synergetically facilitates the satisfaction of the other needs. We call this “multifunctionality” (Lindenberg 1996). The definition of a good intimate relationship is virtually identical with multifunctionality: the relationship is stimulating, physically comforting, socially affectionate, and it increases both a feeling of self-worth (status) and a sense of belonging (behavioral confirmation). The satisfaction of each of these needs aids satisfaction of the other needs (synergy). This implies that multifunctionality is particularly productive of subjective well-being and that loss of multifunctional relationships belong to the most

dramatic reductions in subjective well-being (see Nieboer, Lindenberg, Ormel 1998-99; Lane 2000, chapter 5).

When status achievement takes the form of being dominant, it is difficult to combine multifunctionally with the achievement of affection. This fact can be used to explain a great deal of dominant behavior among youths. For example, bullies are not likely to get affection from their victims. However, the need for affection will strongly influence whom they will bully. They will choose their victims so as not to lose affection from significant others (see Veenstra, Lindenberg, Munniskma, and Dijkstra 2008). In that sense, there is a strategic element in bullying. Being “weak” in a group of peers thus means first and foremost not having friends who would withdraw affection from the potential bully. The victim is thus doubly disadvantaged. It lacks affection from others and (because of this) falls prey to the domineering behavior of bullies. This deficit in need satisfaction can have long term negative consequences (see Uchino, Cacioppo, and Kiecolt-Glaser 1996).

*Status.* Not everybody can achieve status as easily as everybody else, as we know from research on social stratification. Clearly, status affects subjective well-being (see Argyle 1994). However, given the importance afforded to this dimension by sociologists, it is surprising that the effect of status on subjective well-being is rather modest (Nieboer, Lindenberg, Boomsma, and Van Bruggen. 2005). Why is this so? It is likely that self-regulatory abilities would make people substitute. Those who have a more difficult time achieving status are likely to put more effort into the satisfaction of the other needs. We have tested this idea by comparing the contribution of the satisfaction of physical and social needs (except status) for those low and those who are high on status (see Nieboer and Lindenberg 2002). As expected, the satisfaction of needs for stimulation, comfort, affection, and behavioral confirmation explained significantly more variance of subjective well-being among low status people (44%) than among high status people (29%). This clearly points to

substitution effects which buffer the stratification effects on subjective well-being. A similar argument can be made about age stratification. When people grow old, they lose increasingly more important resources. Yet, subjective well-being does not generally decline (it is even likely to rise, see Cacioppo et al 2008). There is good evidence from our research that substitution in the intensity of need satisfaction (in favor of those needs that are easier to satisfy) plays an important role here. Satisfying status needs seems the most difficult to keep up and affection needs the easiest (see Steverink, Lindenberg, Ormel 1998; Steverink and Lindenberg 2006). When it becomes more difficult to play the boss, one may discover the joy of playing with grand children. However, affection produces little positive affect (i.e. little “kick”), a component of subjective well-being that is important for health effects (Pressman and Cohen 2005). Thus, social policy would do well to focus on the maintenance of other social need satisfaction than comfort and affection, for example by providing more meaningful roles for the elderly (Steverink and Lindenberg 2006).

*Self-regulation.* The abilities necessary for self-regulation have also been shown to work best for subjective well-being, if they are each directed towards the satisfaction of all five basic needs (Schuurmans et al 2005). Substitution and coping with loss is only one way in which these abilities work. Importantly, when people are better self-regulators, they also are better at preventing (not just coping with) loss of important resources, thereby maintaining a higher level of subjective well-being into higher age (Steverink and Lindenberg 2008). Clearly, a better understanding of the link between constraints (such as loss of resources), physical and social needs, and self-regulation can also help establish successful interventions for the (relative) improvement of self-regulatory abilities in older age (Steverink, Lindenberg, and Slaets 2005).

*Macro-effects.* On the macro-level, it is also of great importance to look at the way social processes are intertwined with the satisfaction of these basic needs. For example, what

are the customary processes why which people attain comfort and status? Rapid changes in these processes can lead to great social instability and even revolutions. It can be shown that states influence the well-being of their citizens by the way state institutions (and especially the financial and well-fare institutions) affect the satisfaction of physical and social needs (see Lindenberg 1989a). In that way, states touch the most important conditions for the realization of well-being. For example, in prerevolutionary France, it was part of the aristocratic status attainment to be exempt from paying taxes. In need of money, the state sold aristocratic titles to a large number of the bourgeoisie. But then, as the state needed even more money, the tax privileges were rescinded. This did not just change the financial situation of old and new aristocrats, it also affected an important part of the status attainment process. Rapid change in state policies can thus create anger and such uncertainty about ways of realizing well-being that people are, at first, *individually* driven to undermine state authority in various ways, for example by refusing to pay taxes. Because many people are structurally in a similar position and affected in similar ways in their attainment of, for example, comfort and status, the individual reactions are also often similar, creating *individualized collective action* which does not need coordination. In turn, such individualized collective action can be, and often is, the feeding ground for coordinated collective action. Note that the basis for individualized collective action is the communality of basic needs and self-regulatory capacities.

*Cultural relativism.* The fact that universal physical and social needs are intertwined with social processes also affects the way one would approach the question of well-being and cultural relativism. Is well-being mostly a matter cultural definitions of what is supposed to make one feel well? Undoubtedly, culture will have an influence on how we get status, what we get behavioral confirmation for, what the minimum levels of comfort are considered to be, etc. However, the basic physical and social needs are universal and thus there will be

considerable convergence across cultures about what contributes to subjective well-being and what does not (see Veenhoven and Kalmijn 2005; Schwartz et al 2001). What differs most between clusters of cultures is the institutionalized attention to individual well-being (sometimes captured in the labels individualistic and collectivistic cultures, see Triandis 1995, Suh and Koo 2008). The science of subjective well-being would thus need to consider universal physical and social needs and study the means (dependent on culture and technology) for satisfying these needs. There is by now a fairly good measurement instrument for the basic needs comfort, stimulation, status, behavioral confirmation, and affection (see Nieboer et al. 2005).

*The by-product paradox.* How does this theory of needs relate to goal-framing? Here, the answer to this question can be very brief. In a hedonic goal-frame, people will try to improve their condition directly by improving their level of satisfaction on one or more of the five substantive needs. In a gain goal-frame, people try to improve their resources for satisfying their basis needs, such as earning money, creating useful networks, but also by focusing on pure production needs, such as competence or safety. Because status is also an important resource, it is both a hedonic goal (especially in the experience of domination) and a gain goal. People in a normative goal-frame operate as members of a group (or dyad) and try to do whatever they believe improves the condition of the group. However, there is a sociologically most important relationship between satisfying social needs and the normative goal-frame. Social approval is mostly afforded to those who do things for the group and it is often withheld from those who pursue approval directly. This is what I have called the “by-product paradox” of social approval (Lindenberg 1989b, see also Konow and Earey 2008 and Sheldon 2004).

*Social policy.* Since social approval (prestige and behavioral confirmation) is best realized as a by-product of pursuing *normative* goals, the two goal-frames pushed most vigorously in modern market societies, hedonic and gain goals, may have unanticipated negative

consequences for subjective well-being. Social policies directed at fostering a hedonic goal-frame (say in terms of emphasis on consumerism) may actually hamper the realization of subjective well-being (Lane 2000), just as such policies directed at support of a gain goal-frame (say in terms of wealth and status as main indicators of success) may do (Diener and Seligman 2004). But contrary to many criticisms of market society, this analysis does not push some form of social need satisfaction (say, “relatedness”, “sense of community”) as the major objective of social policy. People living in collectivistic cultures are not happier (often, the reverse is the case, see Suh and Koo 2008). Because subjective well-being derives from the satisfaction of all five substantive needs (including stimulation and status) and the production needs (including autonomy), it is best served by self-regulation for a balanced mixture of the three goal-frames. Social policies should thus be primarily supportive of the self-regulatory capacities necessary for such a balance and in that sense supportive of social rationality in general.

## **SUMMARY AND DISCUSSION**

People's well-being depends much on their capacity to improve their condition (or keep it from deteriorating) alone and in groups. In order to do so, they need to be able to pursue goals in way that is adaptive and thus allows them to capture the advantages of living with others. In this paper, I have argued that human rationality (as the capacity to improve one's condition in the context of groups) is a thoroughly social process. During evolution, human rationality has in part been hardwired, but it still depends on favorable conditions that bring it to development during the ontogenesis of the individual. Favorable social conditions are necessary for the hard-wired social abilities (such as the ability to put oneself into the shoes of others), social sensitivities (such as the sensitivity to what others, especially significant others, think about us) and emotional responses to social events to come to bear. If they come to bear, they work in part automatically and thus greatly contribute to the coordination of behavior between human beings (such as contributing to joint projects).

A useful way to capture these processes is in the semi-modular structure of three different goal frames as three different foci of improving one's condition. Goal-frames are high-level goals together with the cognitive processes and forms of representation they govern. Goal-frames strongly influence information processing, what people attend to, what information they are sensitive to, what they like and dislike, what causal knowledge they activate etc. I distinguish between three goal-frames: the *hedonic* goal-frame with the central goal "to improve the way one feels", the *gain* goal frames with the central goal to improve one's resources; and the *normative* goal-frame with the central goal to act appropriately. Only one of these goals can be focal at a given moment, with the other two goals being in the background. Goal-frames allow the situationally adaptive pursuit of goals, inhibiting part of the possibly disturbing influence of other goals. For example, if a person helps another in need in a normative goal-frame, the opportunity costs for doing so are pushed into the background and the gain goal is thus at least in part inhibited. But goal-framing also means that decisions are more or less one-sided, that the focus on some aspects implies neglect of some other aspects. In the paper, I have illustrated this with our own research on overtime work.

Human groups can only be useful to the individual's well-being if they do produce collective goods. In turn, they can only produce collective goods if individuals contribute to their production. A central mechanism in this production is sanctioning. How can a sanctioning mechanism develop? Due to the fact that a situation of joint projects is apt to trigger a normative goal-frame and being treated unfairly is likely to trigger a hedonic goal-frame, it is likely that situations of joint projects create a critical mass of cooperators that is also willing to sanction defectors and thereby also get people in a gain goal-frame to cooperate. I illustrated this with research done by Falk, Fehr, and Fischbacher (2005).

The goal-frames are not of equal *apriori* strength and that can create problems. The hedonic goal-frame is *apriori* stronger than the gain goal-frame which is stronger than the normative goal-frame. Thus, situations asking for, say, a gain-frame, need to provide large amounts of gain, or align especially hedonic goals in the background with gain (such as adding fun to gainful activities). Situations asking for a normative goal-frame (such as social dilemmas), can only be served by such a goal-frame, if the influence of the hedonic and gain goals can be reduced relative to that of the normative goal. The way to do this is to align the hedonic and/or gain goals in the background so that they support the normative goal-frame. Institutional arrangements, such as sanctioning mechanisms, are meant to do just that. For example, fines for transgressing norms will align the gain goal in the background with the normative goal-frame. But then, they the fines must not be seen as costs in a gain goal-frame. I illustrated this with our research on sanctions and goal-framing.

In everyday life, there are however, many subtle ways in which the normative goal-frame can be strengthened. People are very sensitive to strong cues that the situation is social (such as explicitly stating the jointness or the social value of the project, or creating identification with the transaction partner, or making people feel observed). This was exemplified by research with the dictator game. Conversely, even if the normative goal-frame gives way to, say, a gain-goal frame, it is still likely that there will be a moderating influence of the normative goals from the background, keeping people from going all out. I illustrated this with research on ultimatum games.

Goal-frames cannot be chosen directly but only be influenced indirectly. How do people deal with the fact that goal-frames often impose themselves on them automatically? If rationality, in the sense used here, involves at times the flexible change of goal-frames and, at other times, the situational maintenance of a weaker goal-frame against disturbing and stronger goals, how can people do it, if they cannot choose their goal frames? The answer

given in this paper was that people are endowed (again part hardwired, part through ontogenetic development) with the ability to self-regulate their own automatic reactions. This ability consists of many facets, not all of which could be discussed in this paper. The sociologically most interesting facets of self-regulation are (a) the ability to escape unwanted influence of goal and mood contagion (and therefore unwanted influence on the goal-framing process), (b) the ability to influence one's capacity for holding on to a normative or a gain goal-frame by influencing how other people evaluate us (impression management), and (c) to enlist the power of significant others to strengthen one's own normative goal-frame. I illustrated these processes with our own research on the strong influence of "disorder" and of significant others on our ability to hold on to a normative goal-frame.

The important point about self-regulation is that it is an ongoing social process rather than a fixed ability that enables people to deal flexibly with the automatic internal and external reactions. Things can and do go wrong with this social process. Much can go wrong in the process of socialization (for example in ability to have significant others), and much can go wrong later in life when public evaluations influence private evaluations and create feelings of exclusion or rejection, which strongly reduces self-regulatory processes. There is thus in many facets a strong social influence to human rationality that needs to be made explicit in theory and research.

Finally, a goal approach to well-being necessitates attention to fundamental physical and social needs, the satisfaction of which turns into important goals and generates subjective well-being. Social policy in Western market societies has been variously directed at supporting hedonic goals (consumerism) and gain goals (financial success). Against this, critics of modern market societies have championed an emphasis of social policy on "relatedness" goals and community. From the social rationality approach presented here, a somewhat different conclusion can be drawn. Subjective well-being is best served by social

policies that foster (a) self-regulatory capacities which are (b) conducive to achieving a balance between the various goal-frames. Social rationality and well-being are strongly intertwined.

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