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2 Institutions shape preferences: The approach of "Psychology & Economics"

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2.1 How to deal with preference changes

Why do so many people get used to, or even start to believe in, a dictator's ideology though they previously thought it to be ridiculous? Why do others actively oppose it while still others withdraw themselves, resorting to purely private values? Or why do some people upon the introduction of a market economy adopt a pro-market ideology while others become more adverse to commercialization? And why does the higher income produced by markets often not increase people's happiness, in particular of those materialistically inclined?

These are some of the issues this chapter addresses. It is, of course, not claimed that these questions are answered here in a satisfactory way. But it is suggested that new developments in the newly emerging field of "Psychology & Economics" offer a fruitful avenue for approaching these issues.

Everyone knows: human preferences are variable. They develop and change over time. Part of what we liked when we were younger is no longer cherished when we grow older, and vice versa. What individuals may have rejected in the past (e.g., abstract painting) may be greatly valued by the same individuals today. Everybody is also aware that to some extent preferences differ between cultures.[1]

Yet economics traditionally assumes that preferences are constant. This "unrealistic" assumption allowed economists to make great progress in explaining human behavior and in deducing relevant policy consequences. Taking preferences to be immutable focuses the analysis on the effect of (generalized) relative price changes (or changes in the opportunity set) on behavior. This approach has been most clearly visible in the work by Gary Becker (1962, 1976). To the surprise, and also the dismay, of many social scientists (including some economists), he demonstrated that the approach holding preferences constant provides valuable insights not only in the area of the economy, but far beyond. This success led to the claim of economics being the "Queen of the Social Sciences" (most prominently Stigler 1984, Lazear 2000).

At the same time, there were always economists who wanted to deal with changing preferences. There is a long intellectual history of attempts to explain changes in human preferences. But this approach has met with little success. Changing preferences play a minor role in economics. While quite a number of such efforts were undertaken in the 1970s and 1980s,[2] today there are but a few publications addressing this issue, at least in the leading journals. Economics, as revealed in advanced level textbooks, has essentially disregarded these attempts.

A different, and more successful, route explains changes in tastes by assuming the utility function to be time invariant and equal between individuals, but that individuals accumulate human capital based on their past experiences (Stigler and Becker 1977, Becker 1996). A particular consumption bundle leads to a different evaluation by individuals, depending on the amounts of such human capital accumulated. Most people would consider such a process to be a change in preference. This avenue produced noteworthy and empirically testable insights into human behavior (e.g., Becker and Murphy 1988 on addiction). It also yielded important policy results, for instance that drug addicts can only get rid of their dependence if they decide to abstain abruptly and completely ("cold turkey"). The approach, however, found relatively few followers, perhaps because such redefinition in terms of a change in human capital is considered to be somewhat artificial.

This chapter proposes that the situation has been changing quite considerably. "Psychology and Economics"[3] has emerged as an academic discipline combining the traditional, but so far separated, fields of psychology and economics in order to develop a more satisfactory science of human behavior (see, more fully, Frey 2001). It has, in particular, been demonstrated that it is possible and useful to introduce aspects from psychology into economics. The elements imported range from motivational psychology to social neuroscience (e.g., Cacioppo 2002, Glimcher 2003). In particular, "Psychology & Economics" has resulted in two important developments:

1. The psychological theories allow economists to fill preference changes with content and life; they serve as a basis for formally modeling preference changes.
2. Research on the economics of happiness[4] shows that reported subjective well-being or satisfaction are good approximations to individual utility. This allows economists to empirically address the phenomenon of preference change, a possibility so far lacking. Approximating utility by measurable data on reported subjective satisfaction makes it possible to directly test theories on preference changes. Empirical research has been greatly boosted by data on individual satisfaction being available in a panel form spanning many years.

This chapter pursues the avenue proposed by "Psychology & Economics". The goal is to indicate in as concrete a way as possible, and in an empirically testable way, how institutions affect individual preferences. A change in institutions affects the constraints faced by the individuals or, in other words, produces changes in (generalized) relative prices. To analyze the effect of such changes on individual preferences, specific psychological theories are employed and integrated

into institutional economics, thus performing a bridging function. In contrast, this chapter does not intend to provide an in-depth discussion of the concept of preference as used in the various disciplines. This has been done elsewhere (see, for instance, Niederle, in this volume). For the purpose here pursued it suffices to state that the term "preference change" refers to all changes in the behavior of individuals *not* accounted for by the changes in generalized relative prices (see Becker 1976).

The outline of the basic relationships linking institutions and preferences is given in Section 2.2. In order to be as concrete and empirically orientated as possible, the framework is applied to two specific cases: Section 2.3 discusses the effects on individual preferences when a dictator with a particular ideology comes to power; Section 2.4 traces the effects on individual preferences when a market economy is introduced. Section 2.5 offers concluding remarks.

2.2 Relating institutions and individual preferences

2.2.1 Two types of processes

In order to analyze the effects of institutions, it is useful to distinguish between two kinds of processes affecting individual preferences.

The first type of process is based on a *conscious* process. Individuals react in a *cognitive* and *strategic* way to the changes in constraints that they face. Their aim is to maintain their overall or (meta-) utility in the case of restraining changes in their opportunity set, and to raise their utility as much as possible in the case of enlarging changes in their opportunity set. It is thus assumed that individuals adjust their preferences in order to maximize their meta-utility. In contrast to standard economic theory, individuals not only adjust their behavior to a change in (generalized) relative prices, but also adjust their beliefs of what they like, and therefore their preferences.

A case in point is "cognitive dissonance theory" (see Festinger 1967, Aranson 1984: 113–79, or the survey in Reeve 2001: 291–8). Individuals can raise their utility if, after having made a choice, they adjust their preferences to the decision taken. They adopt a different self-image because they must explain to themselves why they have made that choice of their own free will. For example, after having bought a particular brand of car, they make an effort not to have their preferences influenced in an adverse way. They therefore seek advertisements validating their choice, and try to disregard advertisements praising other brands. This theory has been used in a path-breaking contribution to "Psychology and Economics" (Akerlof and Dickens 1982, see also Akerlof and Kranston 2003), which explains why workers who chose to work in a dangerous job fail to take all the precautionary measures deemed reasonable to outsiders. The reason is that doing so continually reminds them that they have chosen a dangerous job. This thought reduces their utility. Therefore they "rationally"[5] decide to discount the danger to which they expose themselves.

As will be argued below, cognitive dissonance is only one particular case of the more general phenomenon of systematically adjusting one's preferences to changes in constraints.[6]

The second type of process is *unconscious*. It happens more or less automatically. It is not willingly controlled, nor strategically used, by the individuals. Preferences are formed within the individuals by motivational and non-rational forces. These changes are thus psychological in a more narrowly defined sense.

An example is *coping* behavior in the face of an unfortunate event. Most persons show a considerable amount of resilience when, for instance, they lose their long-term partner. After suffering intense grief over some period of time, they recover and subsequently attain a similar level of well-being to before the event (see Stroebe and Stroebe 1987 for losing one's partner, and Fredrickson *et al.* 2003 for the general processes). While this adjustment is unforeseen and unplanned, it is nevertheless real.

2.2.2 Consciously changing preferences

Individuals adjust their preferences in reaction to a change in relative prices in order to raise their meta-utility to a higher level than it would otherwise be. This can be done in two ways:

An *active* form is to strengthen those preferences in line with the changing constraints. Take, for example, the case of public transport being less expensive than private transport. One's meta-utility is increased by raising one's preference in favor of public transport. Similarly, when an individual is unable to attain a certain position (e.g., to become a full professor at a reputable university), he or she does well to emphasize the pleasures gained from engaging more fully in leisure-time activities. Such adjustments serve to increase the utility of the persons concerned. Indeed, people unable to adjust in this way lead miserable lives. It is difficult to imagine a world in which individuals would not cope in this way when they realize that they are unable to achieve a particular goal, even if it was initially very important. Many young people dream about becoming famous sportspeople or music superstars. But most of them find it quite easy to adjust their preferences when they see that they cannot reach their original goals.

A *passive* form of preference adaptation is to weaken those preferences incompatible with the change in relative prices. In the cases just given, an individual raises his or her utility by discounting a preference for private transport, e.g., by pointing out to him- or herself that private transport involves higher risk of accident. The person not attaining the desired professorial rank increases his or her utility, for instance, by persuading him- or herself that the "publish or perish" process involved is not worth the effort and does not really contribute to scientific advance. And those giving up their dreams of becoming a sports or music star can focus on the disadvantages of being famous.

These preference adaptations are familiar from everyday life and have also been discussed in the literature (for example Elster 1983). The "sour grapes" story

describes how people adjust their preferences when they realize that they cannot attain a particular goal. In contrast, the "grass is always greener on the other side" story describes the utility decreasing inclination of focusing on unattainable goods and positions.

2.2.3 Unconsciously changing preferences

There are two different processes guiding the adjustment of preferences to relative price changes which are unconscious.

The first process works through the *perceptions* persons have of the outside intervention experienced by the relative price change. If the intervention is taken to be *supportive* for the existing preferences, the individuals have a tendency to strengthen them further. A pertinent example is receiving a commendation for doing an activity for intrinsic reasons (for example to work as a volunteer). This fosters the preferences for engaging in this kind of activity. If, in contrast, the individuals concerned take the external intervention via the change in relative prices to be *controlling*, the preference for the respective good or activity decreases. Individuals respond by going into inner withdrawal or by reactance, i.e., by finding unrelated or opposing activities more attractive.

These adjustments of preferences to changes in relative prices, and the causal relationship between extrinsic and intrinsic preferences implied, have in economics been discussed in crowding theory (Frey 1997). It is based on the psychological theories of "hidden costs of rewards" (Lepper and Greene 1978) and "cognitive evaluation theory" (Deci and Ryan 1985, Deci *et al.* 1999). Bénabou and Tirole (2003) and Gneezy (2003) have recently analyzed the systematic effect of outside interventions on intrinsic preferences by integrating them into standard economics. Crowding effects have been supported by a large number of experiments, as well as by field observations (see the evidence in Frey and Jegen 2001). The social experiments by Gneezy and Rustichini (2000a, 2000b) and by Frey and Oberholzer-Gee (1997) have received considerable attention in economics.

An important question is *under what conditions* people perceive an outside intervention to be controlling or supportive. An outside intervention is rarely considered to be fully controlling or fully supportive. Rather, the perceptions can be arranged on a scale including these conceptions as extremes. Accordingly the crowding-out effect is the *stronger*, the *more controlling* an outside intervention is felt to be. Three psychological processes have been used to account for crowding-out intrinsic preferences.[7] An outside intervention is perceived to be the more controlling (see, more fully, Deci and Ryan 1985, Frey 1997):

1 *The more self-determination is impaired.* When individuals perceive an external intervention to reduce their self-determination, they substitute their intrinsic preference by the intrinsic control imposed. Following Rotter (1966), the locus of control has shifted from the inside to the outside of the person affected. The persons concerned no longer feel themselves to be responsible,

but rather the person or institution undertaking the interference from outside. As a result, the intrinsic preference is partly or wholly given up.

2 *The more self-esteem is impaired.* When an outside intervention carries the notion that the actor's intrinsic preference is not acknowledged or esteemed,[8] his or her intrinsic preference is effectively rejected. The person affected feels that his or her involvement and competence is not appreciated by other people debasing its value. A person with intrinsic preferences is denied the chance to display his or her interest and involvement in an activity when someone else offers a monetary reward (or imposes a command) to undertake it.

3 *The more the possibility to express one's intrinsic preferences is impaired.* Persons subjected to an outside intervention is deprived the possibility of acting on the basis of her or his intrinsic preferences. They exhibit "altruistic anger" and tend to respond by relinquishing their intrinsic preferences and by adopting the external preferences imposed.

The crowding effects are not mechanistic in the sense that it is possible to a priori state for a specific case whether an outside intervention raises or lowers intrinsic preferences. Rather, it is necessary to carefully analyze to what extent the three psychological conditions just mentioned apply. But crowding theory *is* empirically testable (and refutable) as evidenced by the studies mentioned above and collected in Frey and Jegen (2001), as well as by so far unpublished research (see, e.g., Irlenbusch and Sliwka 2004).

The second process guiding the adjustment of preferences to relative price changes depends on *visceral* reactions,[9] which may be the result of an evolutionary quest for survival (see, e.g., Tooby and Cosmides 1990, Barkow, Cosmides and Tooby 1992). The basic idea is that those people who like to do what is being imposed by the environment (i.e., the relative prices) function better and are therefore fitter than those who cling to preferences at odds with their environment.

An important instance is how people react to greater opportunities reflected by higher disposable per capita income. Individuals with given preferences would quickly run into decreasing marginal utility of higher income. As a result, having a higher income would not provide any incentive to pursue hard work. They would be satisfied with the income reached and would use all further opportunities to work less and to enjoy leisure. What we observe, however, is quite different. People in rich countries, and the high-income recipients in rich countries, work more hours, and work more intensively, than those with lower income. A striking example is that of managers with often huge incomes. These are the people who work hardest in our societies. It would be difficult to explain why they work so hard if their preferences were constant. It might be argued that high-income recipients are not interested in their absolute income level but rather in their relative income compared to others. But this leaves the question open who the "others" are. It seems to be a hard-wired human trait that most people tend to compare themselves to people who are *better* off than they are. The reference group is not constant, but also moves upwards with increasing income, i.e., it is endogenous. This is again a preference change, this time with respect to the reference group.

Happiness research has dealt with these issues in an empirical way. People are shown to adjust to increases in income, or more generally to material possessions (Easterlin 1974, 2003, van Praag 1993, Diener *et al.* 1993, Stutzer 2003). An increase in income or consumption yields increasingly less utility because people become used to the higher level. After a year has passed, about two thirds of the utility increase due to higher income has evaporated. At the same time, individuals compare what they receive with what others receive. The income considered "necessary" for a decent standard of living shifts upwards due to both reasons. Over time, an increase in income produces only a very small increase in self-reported subjective well-being. This is "the basic paradox at the heart of modern civilization" (Layard 2005: 1): Real per capita income has increased considerably in developed economies, but life satisfaction or reported subjective well-being has stayed level (see, e.g., Frey and Stutzer 2002a, 2002b, 2003a, 2003b). The adjustment process discussed in, and empirically supported by, happiness research is consistent with a preference change induced by the higher income or consumption: the *same* collection of goods provides less utility than before.

Negative economic life events have also been shown to be subject to preference adjustments. Thus people to some extent get used to being unemployed, especially if surrounded by other people with the same fate. Also, when the social environment is more tolerant towards unemployment, the utility loss is smaller and tends to evaporate more quickly (see Stutzer and Lalive 2004). Again, the same event is evaluated differently over time, which suggests a preference change.[10]

Psychologists have collected extensive experimental evidence supporting these preference changes. In the case of negative life events, they point to resilience as a basic determinant of the extent of preference change. Resilience in turn is raised by positive affect (see Donaldson 2000, Fredrickson and Tugade 2003, Fredrickson and Joiner 2002, Fredrickson *et al.* 2003).

These general considerations on the relationship between the effects on changing preferences by changes in relative prices, in turn induced by institutions, is now applied to two specific cases. The next section looks at the effects of a change in government.

2.3 Effects on preferences of a change in government

Consider the case of a dictator with a particular ideology coming to power. This may be a dictator with fascist, communist or any other orientation. How are the population's preferences likely to be affected?

The individuals living in such a country seek to maintain their meta-utility by adjusting their preferences. They are confronted with a change in relative prices in the sense that they have to possibly carry considerable costs if they maintain their previous preferences (these are not identical to those of the dictator, because if they were, he would not have to be a dictator but could be democratically elected). The people may be economically sanctioned, incarcerated or even killed. In many cases, the dictator and the groups supporting him (often the army, police and secret service) do not only want to see a behavior consonant with official ideology. They also check whether the subjects also *believe* in it. In both cases, the individuals are *actively* or *strategically* able to reduce the utility loss by changing their preferences in such a way that they conform to the official ideology: the people start to believe in it. A more passive preference change is that the importance attached to other preferences, such as valuing family, friends and other associates, is decreased compared to following the dictator's ideology.

The effect on preferences is mediated through perceptions. If the government's interventions in individual private lives are taken to be *supportive* of the preferences previously held, there is an enhancing preference change. For instance, if people have a skeptical or inimical attitude towards foreigners, a dictator with a nationalistic ideology supports the skepticism and strengthens the corresponding preferences. In other cases, however, the individuals perceive the government's interventions to be *controlling*. Preferences inimical to official ideology will then be strengthened. The people's ideology will move away from that of the dictator. This does not necessarily result in an increased visible opposition, because the expected cost of doing so may be so high that the individuals are deterred. But if these costs are perceived to fall, there may be a very large swing to overt opposition. This is the typical pattern seen in many revolutionary uprisings. Most recently, it occurred when people sensed that the communist states were no longer able to impose heavy costs when overt opposition was shown (see Kuran 1995). Such a development was clearly visible in the German Democratic Republic (see Opp *et al.* 1995). Whether a dictator's ideology is considered to be supportive or controlling can, of course, not be determined without empirically analyzing the underlying psychological processes, in particular how people's perceived self-determination and self-esteem are affected. Depend on the content of an ideology, and the way it is projected, the persons living in the respective state may feel that their self-determination is reduced, and their self-esteem lowered in which case preferences contrary to those of the dictator are enhanced.

Intrinsic preferences may also be influenced by visceral reactions. People get used to the oppression imposed by a dictatorial regime. Their preferences adapt to some extent as it facilitates survival. After some time has passed, the individuals do not feel the oppression any more because they have adjusted their preferences to the dictator's ideology. In that case, a dictator's fall does not lead to a quick reversal of preferences. Rather, many individuals tend to glorify the past and think that everything was better when the dictator was still in power. This seems to have happened in parts of the former Soviet Union, where the population appears to have so strongly shaped their preferences according to the dictatorship of Communism that they find it preferable to what seems to them the anarchy of the market and democracy.

2.4 Effects on preferences of the introduction of a market

Consider the case of a country switching to a market economy, or which allocates new and important sectors of the economy to the price system.

Many individuals faced with this new situation seek to maintain or increase their meta-utility by *consciously* adopting *pro-market preferences*.[11] They actively internalize the "market creed," for instance that people should be paid solely according to their performance, or that income correctly reflects one's social worth. Stronger pro-market individualistic preferences allow them to engage in the competitive struggle induced by the price system without any moral qualms or reservations.

A more passive way to deal with the introduction of markets is to *downgrade non-market values*, such as the value attributed to family life, friendship and social connectedness, as well as civic virtues such as tax morale. This preference change makes it easier for individuals to engage in market activities as they have less need to be concerned with competing demands. There is, for instance, no need to care for the interests of family members or friends when a lucrative job can be filled. It is simply given to the best-suited job applicant, irrespective of personal connections.

The effect of the market, or of *commercialization*, on individual preferences has been commented on in a substantial literature (see Hirschman 1977, 1982; Lane 1991). Earlier Montesquieu (1749) thought that the market induces people to become more honest: "Commerce (…) polishes and softens barbaric ways" (see LeGrand 2003). This idea is known as "doux commerce" and has been proposed by philosophers and economists, such as Immanuel Kant, Georg Wilhelm Friedrich Hegel and Adam Smith. The preference change induced by the introduction of the market has thus been considered desirable. But there is an even larger literature stating that pro-market preferences are undesirable: commercialization makes people more selfish and egoistic. The most famous proponent of that view is Karl Marx (1867), but more recently also Hirsch (1976).

The introduction of markets also affects preferences by an *unconscious* process. People to some extent get used to markets, even if they at first mentally reject them. For example, most people did not like privatization of telecommunication, but now their preferences have adjusted to the use of the price system in this area.

But even when the market is introduced, the individuals concerned may from the very beginning perceive it to be *supportive* of their own preferences. They experience, for instance, that good performance is reflected in the form of higher income. In that case, people's preferences tend to move in an individualistic direction, away from more social concerns.

The intrusion of the market is, however, often perceived to be *controlling*. People often feel that their self-determination and their self-esteem is reduced when the market takes over (for empirical evidence see Kahneman *et al.* 1986; Frey and Pommerehne 1993). People's aversion to the market is then strengthened and an anti-market ideology is fostered. Ideologies inimical to the market, such as fundamentalist religions prohibiting taking interest (see Kuran 2004 for Islam), flourish. The environmentalist movement comprises many people who are convinced that markets destroy the natural environment. At the same time, styles of beliefs completely disconnected to market ideas gain more prominence, Buddhist or esoteric beliefs being examples.

These reactions inimical to market thinking on fundamental grounds can be well observed at present. Globalization, which is essentially the extension of capitalist or market ideas to the whole world, has been met with suspicion, if not great opposition, by a large number of people. This is manifested by the anti-globalization movement, which not only cherishes anti-market beliefs (see, e.g., Klein 2002), but also uses violence.

2.5 Concluding remarks

This chapter proposes some highly speculative notions and ideas. It relies on two important new developments in the newly emerging discipline of "Psychology and Economics":

1 *Psychological theories* help economists to *identify* important processes leading to preference changes. This allows us to fill the formerly often totally vacuous concept of preference change with content.
2 *Happiness research* enables us to approximate the concept of utility in a satisfactory way. This allows us to empirically test preference changes.

The discussion intends to show that the preference changes identified as a result of changes in relative prices and institutions can be empirically analyzed. Some of the conditions governing preference changes, especially those relating to the crowding effects, are well identified. Others have still to be more fully explored. It has also been argued that a considerable body of empirical knowledge exists about preference changes in happiness research, though it has so far not been looked at in terms of preference change. The research on happiness has econometrically identified important areas in which individual preferences change.

Notes

1 See the extensive survey by Bowles (1998).
2 See, e.g., Pollak (1976), Winston (1980), v. Weizsäcker (1971).
3 See the early survey by Rabin (1998), and the more recent surveys by Mullainathan and Thaler (2000), Frey and Stutzer (2001) and Frey and Benz (2002). Path-breaking contributions are, e.g., by Easterlin (1974), Scitovsky (1976), Thaler (1992) or Frank (1999).
4 For surveys see Kahneman *et al.* (1999), Lane (2000), Frey and Stutzer (2002a, 2002b, 2003a), van Praag and Ferrer-I-Carbonell (2004) and Layard (2003, 2005).
5 Such behavior appears non-rational to outsiders and over the long term is non-rational also for the individuals subject to cognitive dissonance.
6 See also the earlier studies by Gintis (1971, 1972) and Elster (1983).
7 Many economists do not like to use psychological theories as explanations. They make great efforts to account for the phenomena in question by standard economic theory. In the case of crowding effects this has been done, for instance, by Bénabou and Tirole (2003) who provide an explanation in terms of economic signalling theory. The present author is prepared to take psychological theories seriously and to rely on them on par with economic theories. For a discussion of this position see Frey (1999, 2001).
8 Self-esteem has so far not been a category used in economics but it is of central importance in many other disciplines. See, for instance, Rawls (1971: 86) who considers self-esteem to be the most valuable of the goods he designates as "primary". Most recently, a joint team of an economist and a philosopher (Brennan and Pettit 2004) have analyzed the determinants and consequences of "esteem" (though not of self-esteem).
9 For visceral reactions and the role of emotions in this context, see Bowles and Gintis (2002).
10 It is interesting to note that these preference changes are partially, and sometimes totally unforeseen by the persons involved. Individuals underestimate how much their utility from income and consumption evaporates over time, and overestimate how much they suffer from negative life events. As a result, individuals make systematically distorted decisions according to their *own evaluation,* but they are unable to adequately correct this bias (see Frey and Stutzer 2003b).
11 Whether this strategy is successful in the long term is another matter. The evidence collected by Kasser (2003) indeed suggests that materialistic values do not make for happiness.

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