Cognitive Dissonance in Economics

by

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aus

„Normengeleitetes Verhalten in den Sozialwissenschaften“

von

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> But in recent years, thoughtful opinion has been tending to place less emphasis on efficiency in achieving objectives taken for granted, and to give increasing weight to this other question of the type of objectives generated and the general philosophy of life inculated in people.
>
> F. H. Knight (1925)

Introduction

The aim of the present essay is to introduce the economist to some recent developments in social psychology (sections 1 - 3), to hint at some applications (section 4) and to adress to the broader issue of a psychological foundation of welfare economics. The general proposition is that we can gain much by replacing the premise of utility maximization by the premise of the maximization of cognitive consistency: The latter offers more structure, is more fundamental in the sense that it is able to explain changes in preferences, and has an impressive empirical support in the psychological literature. It is able to explain phenomena like altruism and the obedience of rules without assuming a preference for altruism or law-obedience in advance. Hence it might contribute to the analysis of the moral basis of economics — working morals, business morals, tax morals, the observation of property rights, etc. — which constitutes an important ingredient regarding the efficiency of any economic system.

1. The Perspective of Cognitive Dissonance Theory

1.1. The Face-Saving Motive

In microeconomics we are accustomed to think of individual actions as determined by tastes and constraints, where tastes are described by utility functions. Hence the actions of the individuals are explained by saying that they are the most preferred among the feasible actions, the prototype decision being that among chocolate and bread.

This type of argument can also be used in cases where desires less "direct" than hunger are concerned: Assume the individual has a desire to appear to himself as an approvable human being. This is certainly a possibility, and this kind of taste will explain e. g. altruistic behaviour even in cases where nobody can observe it such as anonymous charity contributions. Virtue is its own reward in these cases.

This "face-saving motive" is, however, not that unimportant as it might appear at first sight if one looks at examples like charity, tipping, and the like: It is obviously very important for the efficiency of any economic system that people obey the rules even if unobserved since this saves control costs, and their desire to appear to themselves as law-abiding citizens is a very important economic asset and can be considered as a kind of social capital — one might speak of "moral capital" just in the same sense as v. Weizsäcker speaks of the "organizational capital" of a society as embodying the value of the organizational structures present within an economy (v. Weizsäcker 1971). One need not go as far as Arrow who maintains that the rules prerequisite to the very functioning of the market system — in particular the observation of property rights — are not self-enforcing but require a separate legal system which enforces them (Arrow 1972, p. 357)[1].

Even if this were not the case, the efficiency gains associated with the reduction of control costs in presence of adequate morals could be substancial, whereas control costs could easily become prohibitively large if people were not intrinsically motivated to behave appropriately, and the market system might become very inefficient as compared to other systems of social organization in this case.

1.2. The Theory of Cognitive Dissonance

Psychologists argue that the face-saving motive is not just a taste like that for chocolate, but is an aspect of a more fundamental drive common to all human beings. In the words of a prominent proponent, "this

[1] In fact, *v. Weizsäcker* (1980, pp. 72 - 76) has argued that, in an idealized utopian framework at least, one might think of law-abiding behaviour as arising from private utility maximization without reliance on legal punishment as long as the individuals expect mutually that those who are observed as behaving unlawfully will violate the rules with a higher probability in the future ("extrapolation principle"), and the costs involved will outweight the potential gains from behaving unlawfully. This argument presupposes that offenses will be detected with some positive probability, the time preference is zero and the planning horizon as well as the expected life-span is infinite. Furthermore, the extrapolative formation of expectations (extrapolation principle) as well as a given system of rules is to be presupposed.

theory of cognitive dissonance assumes the existence of a basic tendency within each individual toward consistency of cognitions about oneself and one's environment". (Zimbardo 1969, p. 15)[2]. Hence if I think of myself as being an altruistic being (this being my "self-cognition") I will run into cognitive dissonance if I observe myself behaving inconsistently by not making the charity contribution. In order to avoid this dissonance, I will make the gift.

Similarly, if I think of myself as observing certain principles (working properly, being honest, not littering the streets) I will behave accordingly even if this involves some costs. The internal costs associated with the dissonance aroused by behaving otherwise would be larger.

1.3. Principles, Circumstances, and Adequacy

Cognitively consistent — as opposed to dissonant — behaviour means that one can provide justification for the behaviour which is convincing to oneself. Hence the individual can give reasons. These reasons involve the application of certain principles of action to given circumstances. Statements like "I did it for money ...", "I did it not for money" (implying some other suggested cause), "I did it to help others ...", "I did it to avoid punishment ...", "I have always handled these matters like that", all involve the application of principles to certain circumstances. However, the invoked principles ought to be appropriate under the given circumstances in order that the justification be convincing. The general picture of behaviour looks like that: There is a set of principles P and a set of circumstances S. The thesis is that for any given situation $s \in S$ the principle $p \in P$ is chosen which appears as the most adequate, and actual behaviour is following this principle of action. The crucial thing is, of course, how the degree of adequacy $a(p, s)$ is determined. If we have such a measure, however, the action selected will follow a principle which involves the smallest degree of cognitive dissonance. The view described here amounts to the thesis that "utility" is not derived from the actions independently of their meaning to the individual but rather from their degree of cognitive consistency, from their very meaning. This is somewhat more restrictive than (although not inconsistent with) maintaining that everything is just the result of utility maximization without saying anything more, since it involves additional restrictions

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[2] The basic reference to cognitive dissonance theory is *Festinger* (1957). We need not bother about whether this motivating force towards psychological consistency is culturally conditioned or innate, since it seems to be universally present at least in the western cultures. Gestalt psychology suggests that it might be innate to a certain extend — due to the organization of the brain brought forth natural selection.

stemming from the psychological regularities of concept formation, cognition, and learning.

The following sections will elaborate on these restrictions.

2. Determinants of Adequacy

2.1. Intrinsic Simplicity

Principles are rules, and rules ought to be simple. Consider the sequence of numbers

(1) $$3, -3, \quad 3, -3$$

This sequence will be memorized and reproduced by means of the rule

(2) $$x_i = -x_{i-1}, \quad x_1 = 3\ , \quad i = 1, 2, 3, 4$$

although

(3) $$x_i = 45 - 68\,i + 30\,i^2 - 4\,i^3 \quad i = 1, 2, 3, 4$$

would do as well and many other formulas are conceivable. This illustrates the psychological fact that the human mind tends to maximize simplicity — we observe an optimizing process in data processing carried out by our mind spontaneously. This is the old "law of prägnanz" of Gestalt Psychology[3].

Hence a rule is particularly adequate if it is as simple as possible. This depends, of course, on the items to which it is to apply.

For instance: If we are confronted with the sequence

(4) $$3, -3, \quad 3, -3, -45$$

it might be still adequate to describe it by the rule (2) and by the "exception"

(5) $$x_5 = -45$$

and this way of conceptualizing it will usually be adopted[4]. This method will become inefficient, however, if we are confronted with the sequence

(6) $$3, -3, 3, -3, -45, -147, -333, -627, -1053, -1635, \ldots$$

Here it might be advisable to think it governed by the rule

[3] See *Schlicht* (1979) for another example and for references. By the way the law of prägnanz has been observed to operate within animals, too.

[4] In terms of Piaget's learning theory, this would be an "assimilation".

$$x_i = 3\,x_{i-1} - 3\,x_{i-2} + x_{i-3} - 24 \tag{7}$$

together with the initial law (2) or by formula (3)[5]. However, too complicated rules will be unintelligible even for the trained brain and will cease to "make sense". In order that a principle be adequate, it ought to make sense, however. Hence it ought to be simple intrinsically.

2.2. Reciprocative Consistency

The question of whether a principle makes sense is not tied simply to its intrinsic simplicity but also to its consequences. The central argument used here is highlighted by the test underlying Kant's Categorical Imperative: Will the universal application of a given principle to a given set of situations be feasible and desirable — is it possible that everybody applies this principle under the specified circumstances, and will the social outcome resulting from that be approvable?[6]

If this consideration leads to an answer in the affirmative, this will offer an argument which increases the adequacy of a given principle. Most of the legal and customary rules we are concerned with derive their justification from that kind of reasoning: This is the main reason for driving at the right-hand side of the road or of not littering the street. The justification is given by asking: "What would the traffic, or the streets, look like if anybody cared about these rules!", and this is taken as a justification although it is logically indefensible, strictly speaking: There are usually other rules or means leading to the same result (driving strictly on the left, employing more scavengers), and the overall outcome might even be improved from the point of view of an individual behaving as a free rider: disregarding the rules which all others obey.

2.3. Personal Consistency[7]

Assume that an individual has to decide whether to obey a certain principle or not — not throwing litter away or doing so for instance. If he has followed the rule in similar situations in the past and decides

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[5] In terms of Piaget's learning theory the change from (2) to (7) constitutes an "accomodation"; in terms of Gestalt psychology, it is a Gestalt switch; in terms of Kuhn's conceptualization of the progress of science, this is a change of paradigm.

[6] This feature is the main concern of many investigations in ethics, compare e. g. *Hare* (1952).

[7] This section summarizes some results of "attribution theory" and "commitment theory" in psychology from the point of view of dissonance theory. See on that *Irle* (1975). On the comparison between attribution theory and cognitive dissonance theory, see also *Stroebe* and *Diehl* (1981).

now *not* to follow it, this warrants explanation: Why has he behaved differently in the past, and what has been wrong with his previous reasoning? Or is the present situation significantly different, and in which respect? These questions ought to be answered convincingly in order to avoid the dissonance between past and present behaviour, but this dissonance will not be aroused if he behaves as he did in the past. Hence a principle will appear more adequate to the individual in a certain situation if it is consistent with what the individual did in the past.

Another, although closely related, aspect of personal consistency is that the action ought to be consistent with the self-image the individual fosters: If he thinks of himself as being a tidy person, this view of himself cannot be easily reconciled with littering, for instance. On the other hand, if the individual thinks of himself as being a spontaneous human being disregarding bureaucratic rules, these problems would not be that important. The self-image, however, can be only convincing if it is in accordance with past behaviour: If I have littered throughout my life, I will run into cognitive dissonance if I still want to think of myself as being tidy, and the theory of cognitive dissonance would predict that I choose another self-image more compatible with my past behaviour. The striving for personal consistency is witnessed by the phenomenon of "selective exposure to new information"[8]: One can observe a systematic tendency to depreciate new information which is dissonant with past behaviour and to accept new information which is in corroboration of it.

In a similar vein, the "forced compliance paradigm" stresses that people change their attitudes and preferences in order to gain personal consistency: "Subjects whose initial attitude toward eating Japanese grasshoppers was one of strong dislike reported liking them more and approved of more strongly worded personal endorsements for them after having eaten some at the request of a disliked, negatively evaluated communicator, as compared to the attitude change of eaters responding to the inducement of a positive communicator and of Controls not given the experimental treatment"[9]. The argument is that a positive communicator might serve as an explanation for eating those animals whereas a negative communicator will not. In the latter case the individuals are induced to develop another explanation for eating them by

[8] *Festinger* (1964, pp. 22, 30); *Irle* (1975, pp. 320 - 327).

[9] *Zimbardo* (1969, p. 264 f.). The studies collected in this book exemplify that the forced compliance paradigm is very powerful indeed: It offers a unified explanation for changes in attitudes and in behaviour even for physiological phenomena associated with hunger and stress, for instance. *Zimbardo* (1969, p. 270) remarks: "However, while it is possible to erect an alternative theoretical explanation to account for the results of any one experiment or subset of them, only dissonance theory can satisfactorily and parsimoniously account for all of them."

changing their attitudes such as to reduce the dissonance aroused by observing themselves eating something disliked without any reason.

Another class of investigations, related to the forced compliance paradigm, is extremely relevant to economics. It deals with the "detrimental effect of reward"[10]: The general finding is that the intrinsic motivation to do certain things is lessened if a reward is given to these activities. In terms of cognitive dissonance theory the reward, and the fact of accepting it, is interpreted by the individual as being the main motive leading the behaviour, and the intrinsic motivation is destroyed: The individual starts seeing itself as being extrinsically rather than intrinsically motivated. The forced compliance phenomenon demonstrates that this can be reversed: By getting somebody to do something with minimal incentive, this will create intrinsic motivation.

The selective exposure, forced compliance and detrimental reward phenomena show that the history of the individual — or of the group of individuals we are dealing with — is an important aspect in the determination of the degree of personal consistency: Selective exposure and forced compliance contribute to our understanding of habit persistence, and the detrimental effect of reward will lead to the result that the intrinsic motivation to follow a certain rule of behaviour will be absent if the behaviour has been rewarded directly in the past.

2.4. Social Consistency

If somebody says: "This grass is red", I will look twice. If I still perceive it as green, I will experience cognitive dissonance since I have to answer for myself the questions: "Why may our perception differ?" "Why does the other pretend to perceive the grass as being red?" etc. A similar problem will arise if I perceive somebody similar to me but acting differently from me under similar circumstances. This involves dissonance: I have to supply myself with an explanation why the other differs from me or why he is really acting under different circumstances.

It will be particularly hard to answer these questions in cases where I know that the other is an expert acting under the same conditions as I do: If an expert mathematician arrives at results contradicting my conclusions, the most convincing explanation is that my reasoning has been erroneous, and the force of this explanation will become overwhelmingly strong if many expert mathematicians agree with their collegue but disagree with me. Without knowing their arguments I will be fairly convinced that I have made an error and that they are right.

[10] See *Lepper* and *Greene* (1978). I owe this reference to *Frey* and *Stroebe* (1981).

If I am bound, as an engineer, to make use of one of the contradicting results and have no time to check them, it will be a good strategy to base my construction on the expert's advice rather than on my own considerations.

Similarly many possible explanations for my acting differently from a vast and heterogeneous majority will be very weak since it is very probable that many individuals in the majority are better in problem-solving than I am, have more experience, and are acting under similar or even more unfavorable circumstances. Acting differently from the majority implies that I have to give reasons why I am better in assessing arguments or why my case is an exception. A reason could be that I passed better judgements than the majority in the past, but to supply evidence for that will be very hard, usually, and the hypothesis that the majority is acting correctly is very convincing in most cases.

Hence a principle of action will be deemed the more appropriate, the more it is accepted within my reference group, i. e. by those I think are acting under comparable circumstances and with sufficient competence. Reference group behaviour avoids the cognitive dissonance associated with acting differently from the reference group, it leads to what might be called "social consistency" for the present purposes[11].

3. Consistency vs. Utility Maximization

3.0 Introduction

There is a large body of psychological research dealing with the issues touched up to now, and it is beyond the scope of the present essay to give a satisfactory review[12]. I will offer only illustrative examples in this chapter stressing the relevance of the features of simplicity, reciprocative consistency, personal consistency, and social consistency (sections 3.1. - 3.4.) and contrasting these views with simple utility maximization.

3.1. Simplicity

Consider the experiment by Güth (1983) reported in this volume. The task has been to divide 12 pages of arithmetic work between two anonymous subjects. One of them (*C*) has a pocket calculator, and the other

[11] Some consequences of reference group behaviour for the efficacy of economic incentives are developed in *Schlicht* (1981). The distinction between personal consistency and social consistency is closely akin to *Riesman's* (1950) distinction between "inner-directed" and "outer-directed" behaviour. However, the present approach has the advantage of saying something about the factors strengthening or weaking the one or the other type of behaviour.

[12] If any reader is interested in getting acquainted with the subject, the comprehensive review by *Irle* (1975) is recommended.

(*NC*) is not allowed to use one. The one with the pocket calculator has to decide about the division of work. The simple principles of division coming to the mind spontaneously are

	Number of pages solved by	
	C	*NC*
1. Minimization of own effort	0	12
2. Minimization of joint effort	12	0
3. Equal division of pages	6	6
4. Equal division of effort[13]	10	2

Many randomly assigned couples of subjects have been studied by Güth and he gives the frequency of pages chosen by the *C*-subjects in his paper.

The experimental outcome shows pronounced peaks at the results corresponding to the application of the principles 2. and 4. and a less pronounced peak at principle 1. The equal division of pages has not been used as a means of allocating work — obviously this formal symmetry principle makes not very much sense in the given asymmetric setting. What is to be noted, however, is that there is a pronounced dent in between (10.2) and (12.0). This makes it difficult to explain the observed behaviour in terms of simple utility maximization with altruism: If the individual utility function were $u(n) + \alpha \cdot v(12 - n)$ where n stands for the number of pages to be completed, u is the individual utility of the decision maker, v is the utility of the individual who has to do the rest of the work, and α is a parameter of altruism, we would expect α to be distributed smoothly and regularly, and this would give rise to a smooth and regular distribution of n rather than to the pathological distribution which turned out from the experiment[14].

Hence this experiment indicates that the consideration of principles is not superfluous but is able to grasp phenomena more easily than simple utility maximization under neglect of cognitive elements. It adds structure.

[13] These numbers are derived by taking the closed integer to m from equation (46) in *Güth* (1982) and by using the arithmetic mean of q_i instead of the q_i's. Taking the mode leads to the same result; taking the geometric mean leads to (10.5, 1.5). The dispersion of the q_i's will induce some dispersion here, of course.

[14] I owe this argument to Reinhard *Selten*.

The aspect of simplicity is very important in economics, too: If we talk about the reputation of a firm, the formation of expectations, etc. we are implicitly alluding to inductive reasoning which seems to be impossible without the concept of simplicity as the very basis of the notion of regularity[15].

3.2. Reciprocative Consistency

In a famous study Titmuss has compared the systems of voluntary blood donors and of commercial blood markets as alternative means for the procurement of blood needed for transfusion[16]. He argues that in a commercialized system a rather high price of blood is required to produce the same supply as under a pure system of voluntary blood donors even if voluntary blood donors are possible in the commercialized system, too. (Titmuss 1973, pp. 51, 178, 232.) This implies that the introduction of a market reduces supply absolutely as long as the price is moderate.

As Arrow (1972, p. 350) has remarked, this is puzzling to the economist: "Thus, if to a voluntary blood donor system we add the possibility of selling blood, we have only expanded the individual's range of alternatives. If he derives satisfaction from giving, it is argued, he can still give and nothing has been done to impair that right." Still it seems to be true that the introduction of a blood market reduces the supply of blood at moderate prices: Some will cease to give their blood although they could get money for it[17]. From the point of view developed in this paper, the phenomenon could be explained by looking at reciprocative consistency under the different regimes:

Without a blood market the argument would be: Blood is needed. But how could the necessary blood be procured if everybody refused to act as a donor? And what would happen to me if I needed a transfusion? So it will be difficult to reject giving a suggested blood donation unless specific circumstances like impaired health stand against it. However, if a blood market exists, this argument will brake down since

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[15] There are infinitely many mutually contradicitive predictions about the future course of the series (6) compatible with the data given there if we do not resort to the notion of simplicity, for instance. On the problem of simplicity in induction, see also *Harrod* (1956). For further discussion see *Schlicht* (1979).

[16] *Titmuss* (1973). He concentrates on Great Britain (voluntary system) and the United States (commercialized system), but he discusses the systems of many other countries, too.

[17] This is highlighted by the phenomenon that the social structure of the donor population corresponds roughly to that of society whereas the poor are significantly overrepresented if a market is introduced, see *Titmuss* (1973, pp. 144, 120).

there is the alternative means of blood procurement through the market. Hence we are not forced to rely on the doubtful argument that Englishmen are more altruistic than Americans[18]. We shall come back to the Titmuss example in the following sections.

3.3. Personal Consistency

The striving for personal consistency is present whenever people behave differently from what can be considered as straightforeward utility maximization: Making a charity contribution without being observed (the example we started with), giving a tip to a taxi driver or a waiter in a foreign country, helping a child, making a correct tax return, not stealing even if unobserved.

It is tempting to explain these phenomena by assuming, in a Freudian vein, that people try to avoid by these acts having a "bad conscience" as a consequence of acting against the norms implanted in their "super ego". According to this view, "id" and "ego" strive for utility maximization (the id aiming at immediate pleasure, the ego channalling this according to the constraints of reality) and the super ego establishes additional constraints which have been learned through a habitualization process of conscience. Experiments, however, have not confirmed this view; it has been shown that the observation of certain norms is not a stable trait of the character but is heavily dependent upon the specific situation the individual is acting in[19]. The theory of cognitive

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[18] cf. *Arrow* 1972, p. 350. By the way, *Marshall* (1924, p. 637) pointed to this when he wrote: "And again increased earnestness in our care for the poor may make charity more lavish, or may destroy the need for some of its forms altogether."

[19] *Colby* and *Kohlberg* (1978, pp. 349 - 351). The most dramatic example in this direction is given by the studies of *Milgram* (1965): Subjects were given a small amount of money in advance for participating in a "learning experiment" ostensibly designed to study the effect of punishment on memory. Subjects are informed that one member of a pair will serve as a teacher and one as a learner. The teacher is instructed to administer electric shocks to the learner of increasing intensity whenever the learner fails to memorize certatin words correctly. The learner, according to the plan, is a collaborator of the experimenter and gives many wrong answers, and the naive teacher is required to give him electric shocks up to 375 Volts which are declared as extremely dangerous. The finding has been that a very large percentage of subjects were prepared to administer those severe punishments although they heard the protest, the cries, and the final agony of the learners (which were simulated, however). Although the subjects were free to leave the experiment, and knew that, and although they suffered severe feelings of guilt, they continued the experiment on the simple demand of the experimenter "You have no other choice, you must go on!". The explanation for this finding rests on that the subjects have been put in a situation where the "correct" way of behaviour has been to obey the accepted rules although the consequences had been unclear in advance and where it has been extremely difficult for the subjects to find appropriate principles of be-

dissonance makes this understandable since it stresses the cognitive elements which are dependent on the situation and it offers a point of view which explains what otherwise might appear as blind habituation of utility functions or conscience. The phenomena of selective exposure to new information and attitude changes brought about by forced compliance stress the relevance of personal consistency from another angle, as has been mentioned in section 2.3.

3.4. Social Consistency

If we observe people imitating others without any other apparent reason than just to imitate, this could be interpreted in a utility maximizing framework by postulating a preference for conformity. From the point of view of cognitive dissonance, however, this kind of behaviour is "rational" in the sense that people rely on the judgement of others by making their own judgement — it is an example of what Keynes called a "conventional judgement"[20]. It is rational if the individual can assume the others to be at least as good informed as he is. By relying on their judgement he can save the costs involved in evaluating the alternatives, and he can benefit from their perhaps superior knowledge.

However, according to cognitive dissonance theory the individual will cease behaving as the others do if he has reasons to believe that he is better informed. Hence the theory of cognitive dissonance is able to explain deviations from conformity: it is able to explain, so to speak, shifts in the utility function: an increase or decrease in the preference for conformity. Hence, again, it goes beyond simple utility maximization.

Returning to this Titmuss example, we can see that the striving for social consistency might contribute to the understanding of the puzzling phenomenon that the introduction of a blood market induces a previous donator to give no blood at all: If he gave blood as an unpaid donor, he would run into the problem of needing an explanation why others in a similar situation get money for it, and vice versa. This dissonance can be avoided by not giving blood at all.

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haviour justifying a breaking off of the experiment, but under other circumstances they would have behaved quite differently. By the way these findings contradict a simple utility maximization hypothesis flatly. For a discussion of this and related experiments, see *Irle* (1975, pp. 469 - 475).

[20] *Keynes* (1973, p. 114).

4. Aspects of Cognitive Dissonance in Economics

4.0 Introduction

This section discusses, somewhat informally, some applications of cognitive dissonance theory to economic problems. Section 4.1. adresses to the central proposition of the stability of utility functions presupposed in conventional economics; section 4.2. reports on some related studies in the economic literature; in section 4.3. it is argued that cognitive dissonance theory might contribute to an understanding of the welfare effects of freedom which escape traditional welfare economics; section 4.4. presents an example which indicates that our understanding of the interrelationship between political and economic processes might be improved considerably by using cognitive dissonance theory; and in section 4.5. it is argued that the subject of welfare economics will undergo a fundamental, and healthy, change, if the insights gained from social psychology are taken for serious.

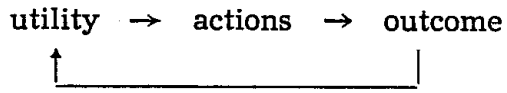
4.1. The Instability of Utility Functions

The economist is used to explain many phenomena by starting to assume utility functions which the individuals are assumed to maximize. This explains the actions and interactions among the individuals and determines the final outcome

utility → actions → outcome

As long as the utility functions can be assumed to be stable with regard to the speed of the process leading to the outcome, this argument can be used even if we are convinced that social psychology and especially cognitive dissonance theory might contribute to explaining the particular shape of the preferences we are assuming.

If there is, however, a feedback from the outcome to the preferences, the utility functions can not be taken as data of the analysis:



It is not legitimate to take utility as given and to fix it under a ceteris-paribus clause[21]. In order to arrive at a correct result we have to take into account a feedback from outcomes to preferences. Hence we need

[21] In my terminology (*Schlicht* 1977, chapter 1), the "isolation principle" is violated and the ceteris paribus clause is inadequate safe for purely expository purposes ("hypothetical isolation").

a theory of preference formation for these problems. The present aim is to supply tools which might be helpful here.

Cognitive dissonance theory suggests, however, that preferences are dependent upon economic circumstances in some important cases — the Titmuss study e.g. offers the example that the introduction of a market (a policy measure) changes preferences, and the detrimental effect of reward is another instance where economic incentives might change preferences directly.

In all these cases, preferences cannot be taken as being stable with regard to the processes they ought to explain. Cognitive dissonance theory suggests that the striving for consistency is the stable point of departure here: We can take this as given even in cases where preferences are unstable.

4.2. Notes on the Literature

1. The striving for personal consistency leads, via selective exposure to new information and the forced compliance phenomenon, to a change in preferences reconfirming the status quo. This argument has been used by Hirshman (1965) with regard to attitude changes toward modernization in the course of development[22]. It has been used by Akerlof and Dickens (1982, pp. 310 - 315) with regard to attitude changes towards hazardous jobs, social security, and innovation, and it has been employed by von Weizsäcker (1982, pp. 28 - 29) with regard to environmental preservation. Schlicht (1980, p. 162) has used the argument as a means of criticizing a sociological wage theory.

2. The drive towards personal consistency leads, furthermore, to the phenomenon that severe punishment will be a sufficient explanation for not doing a certain offense, whereas a mild punishment will require that individuals develop an intrinsic motivation against committing the offense (this is the same argument as that underlying the detrimental effect of reward). It has been pointed out by Akerlof and Dickens (1982) that this implies a strong objection against the approach taken by the Chicago economists to the economics of crime. Frey and Stroebe (1981) point out that the "pay-for-housework" proposal might be counterproductive due to the detrimental effect of reward.

3. The striving for social consistency leads to individual behaviour which is in conformity with the behaviour observed in the reference group. One important consequence of reference group behaviour is well-known from Duesenberry's (1949) study of the consumption func-

[22] I owe this reference to *Akerlof* and *Dickens* (1982, p. 307).

tion[23]. Schlicht (1981) has demonstrated that this kind of behaviour increases rather than decreases the effectiveness of economic incentives.

4. If an individual is faced with alternatives which seem equally attractive, a state of cognitive dissonance arises: One needs a reason to decide; and advertising, which might stress a quite irrelevant or even purely imagined quality might serve this need (Akerlof and Dickens 1982, pp. 316 - 317).

5. In a somewhat different theoretical framework, the simplicity argument has been used in Schlicht (1979) with regard to the discussion about labour management vs. capitalist management in the theory of the firm: It has been argued that an increase in firm-specific human capital formation induced by technological changes will lead to a decrease in labour turnover. Hence it will become more natural to identify the firm with the workers rather than with the capitalists. This induces the conviction among the workers that the firm is theirs rather than the property of anonymous shareholders. Hence a problem of legitimacy arises for the capitalist firm and the labour managed firm might save costs of conflict avoidance, which might turn into a competitive advantage.

4.3. The Value of Freedom

Consider a household faced with indifference curves and a budget set as in figure 1.

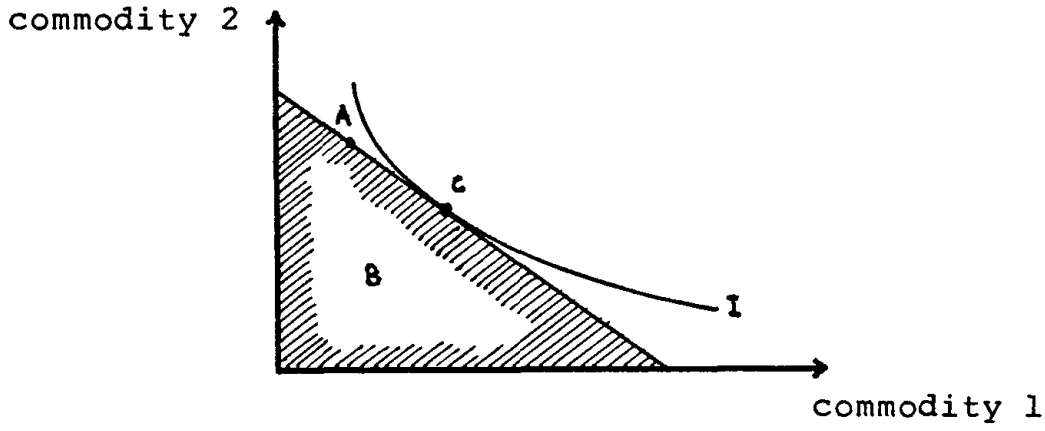


Fig. 1: Indifferent curve I, budget set B, and optimal consumption plan C of the household.

[23] See also *Albert* (1965) for a fundamental evaluation of Duesenberry's approach. Albert offers a research program in that important paper which is closely related to the present consideration. See furthermore *Schlicht* (1975) for an application of the Duesenberry approach to the theory of wealth distribution.

From the point of view of welfare economics it is a matter of indifference whether to give the individual the budget set B or to supply the commodity bundle C directly, since consumption will be C anyhow. However, from the point of view of cognitive dissonance theory, Figure 1 depicts the individual's preferences *before* it is endowed with the commodity bundle. *Afterwards,* preferences will change, depending on the endowment process. The individual has more alternatives if it is endowed with the budget set B: it could choose consumption A, for instance, instead of consumption C. In order to avoid personal inconsistency, the individual will give more weight to the reasons favouring his actual choice C over the rejected alternative B through selective exposure to new information. This process would not take place if the individual were offered only C and no other relevant alternative. Hence we conclude that the individual will feel happier ex post if C has been chosen freely from the budget set. In this way, freedom increases welfare. If seems to me that the argument highlights that traditional welfare economics misses important points concerning economic welfare (a psychological concept) under different regimes.

Remark on Reactance: There is an additional psychological argument pointing in the same direction: It has been found that an alternative increases in attractiveness if it is taken away from the set of feasible alternatives. This is the "reactance" phenomenon[24]. Hence in the above example alternative A would appear more attractive if the individual were endowed directly with final consumption C instead of the whole budget set.

4.4. Towards an Understanding of Political Issues: An Example

In Germany we have a law which ties the level of social insurance pensions to the prevailing wage income before taxes. Since income is taxed progressively this implies, however, that pensions grow faster than wage incomes after taxes, and these pensions are not subject to the income tax.

A financial crisis of the system is predictable given the present data. In order to prevent it, there are two alternatives

1. The net wage concept (Nettolohnbezogene Rente):
   Social insurance pensions are to be tied to wage income after taxes[25].

[24] It has not found a theoretical explanation up to now, see *Irle* (1975, pp. 372 - 379). *Zimbardo* (1969, p. 283) argues, however, that it is closely connected to the pursuit of cognitive consistency.

[25] An equivalent alternative would be to subject pensions to the income tax and to give the additional tax receipts as additional subsidies to the social insurance system.

2. The gross wage concept (Bruttolohnbezogene Rente):
   Social insurance contributions are to be increased.

The proponents of the net wage concept argue that it is unfair that the net income of the pensioneers is growing faster than that of the active population which produces what the pensioneers get. They view the system basically as redistributing the produced income among the active and the retired: They see it as a *redistributive system* (contract among generations, Generationenvertrag).

On the other hand the gross wage concept is defended by saying that the social insurance contributions have been paid out of gross wages which have been taxed already (rather than out of net wages). Hence the social insurance contributions have been taxed already, and the net wage concept would imply that pensions are taxed twice. This arugument rests on the interpretation of the social insurance system as an *insurance* rather than a redistributive system.

The waves of the discussion about these alternatives are rather intense at their peaks. From the point of view of the present considerations the political issue can be explained by observing that the two principles of redistribution and of insurance are mixed up in the present system: The redistributive element is contained in the feature that pensions are tied to current wage income rather than to previous contributions, and the insurance element is present since social insurance contributions are collected. Hence a cognitive dissonance is built into the system: One can look at it both ways by viewing the one or the other feature as dominant and the remaining as accidental. People will look for additional reasons for making that decision by considering their personal advantage for instance[26].

Once they have made up their minds, selective exposure to new information will reconfirm their view and they will feel convinced of the view adopted and will argue that the opponents are selfishly pursuing their own advantage, disregard considerations of justice and fairness, and are putting foreward their arguments for purely tactical reasons.

Hence both parties can be convinced that they are right because their views are founded on the objective features of the social insurance system, and the conflict can be solved only by additional arguments (like an empty cash-box) or by changing the system in the one

[26] This is also in accordance with the minimization of cognitive dissonance since a decision neglecting the personal advantage will arouse dissonance unless adequate reasons can be given for this discrepancy.

or the other direction: If the social insurance system were financed through taxes directly, the gross wage concept would loose power; if social insurance contributions were financed out of net wages, the result would be similar. On the other hand, the insurance view underlying the gross wage concept would require that social insurance pensions are tied to past individual contributions and are independent of current wages.

Note that the change e.g. from basing social insurance contributions on net wages rather than gross wages has no "real" effect if the premia are changed accordingly, but the present considerations would predict a substancial political impact of such a move.

This illustrates why arguments are important in politics: Arguments are important insofar as they are not merely value judgements but are elaborating principles implicit in the status quo and applying these principles to controversial issues[27].

This might explain why the interests of certain important groups (like housewifes, for instance) have very little political weight, whereas other groups have extraordinary influence. If these differences were merely a reflection of economic influence, however, the job of the politicians would not consist mainly in making speeches and reading papers, since these activities will not change the "real" power structure very much. This can only be explained by the aim of establishing principles and render them powerful — by tying them to what the world is like, by rendering them relevant. This seems to me to be the nature of political power[28].

4.5. Towards a New Anchorage for Welfare Economics?

It is a hallmark of traditional welfare economics to take preferences as exogeneously given. Furthermore all possible preferences are given equal weight. This is formalized by the "unrestricted domain" assumption. The argument underlying this is that of "consumer's sovereignty": The consumer himself knows best what is good for him. Hence we should assume nothing in advance about preferences.

The unrestricted domain assumption renders welfare economics rather sterile, however. This is documented by the the main results in

[27] See also *Schlicht* (1979) on the theory of social norms.

[28] *Lindblom's* (1977) concept of "authority" can be understood as a derivative of the above considerations. To take authority as a primitive concept, as Lindblom does, seems to me to involve difficulties regarding the establishment and the breakdown of authority.

this field: On the one hand the various impossibility theorems and the Gibbard-Sattlethwaite-Theorem stating the manipulability of all non-dictatorial collective choice rules granted the unrestricted domain assumption. On the other hand all meaningful welfare theorems make special ad hoc assumptions about preferences. The Pareto-optimality of general equilibrium is proved by assuming interdependent preferences away, for instance, and the recent attempts to circumvent the "liberal paradox" rule out what they call "nosy" preferences[29].

Hence a theory which can say something about the formation of preferences might give hints about what we reasonably might assume about the shape of preferences: We are not forced to rely on our personal tastes or value judgements when making assumptions about preferences nor to rely on doubtful ad-hoc generalizations of empirical findings. (These generalizations are often doubtful because preferences are rather unstable in many cases. Hence we need to know the rules governing preference formation, i.e. we ought to draw on social psychology.)

In this vein, welfare economics might turn into an branch of positive economics which is concerned with the actual rather than arbitrary preferences of individuals. Value judgements will receive their relevance not from the personal preferences of economists but are considered as empirical phenomena generated by economic processes and governing these processes in turn[30].

In this way, the dichotomy between normative and positive science collapses: Welfare economics is turned into a positive science, and theoretical considerations about the formation of preferences contribute to the understanding of economic phenomena[31].

In addition, and, perhaps, more importantly, the incorporation of psychological theories about preference formation might lead to a more adequate treatment of the all-pervasive learning processes which escape the traditional framework and render the propositions of welfare economics somewhat airy in the more interesting cases. Von Weizsäcker's (1971 a) analysis highlights this point.

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[29] *See Gaertner* and *Krüger* (1982).

[30] I have developed the above programme in *Schlicht* (1974).

[31] By the way, this turn to psychological economics is in outspoken contrast to the earlier "subjectivist revolution" in economics since it aims to rely on general rules about preference formation and to get rid, in this way, of subjectivism. Both approaches are psychological, however, since they are tying values to desires rather than trying to determine objective values.

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