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## Changing Preferences and Cognitive Processes

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resumo

résumé / abstract

**Neste artigo, o autor levanta algumas questões sobre a relação existente entre os processos cognitivos e os padrões de comportamento do consumidor racional. Admitindo que a racionalidade se exprime na utilização óptima da informação disponível, o consumidor racional tem de conciliar dois tipos de forças opostas, isto é, as que incitam a alterar os gostos e as que aconselham a não os modificar, mesmo que haja alterações de preço. A solução sugerida pelo autor para a resolução desse conflito harmoniza-se com os processos cognitivos e visa, na mesma linha de Herbert Simon, introduzir uma base cognitiva na teoria das escolhas racionais.**

Dans cet article, l'auteur aborde quelques points relatifs à la relation existante entre les procédés cognitifs et les styles de comportement du consommateur rationnel. En admettant que la rationalité s'exprime dans l'utilisation optimale de l'information disponible, le consommateur rationnel doit concilier deux types de forces opposées, celles qui incitent à altérer les goûts et celles qui conseillent de ne pas les modifier, y compris lorsqu'il y a variation du prix. La solution suggérée par l'auteur pour la résolution de ce conflit s'opère par les processus cognitifs et vise, dans la même optique que Herbert Simon, à introduire un fondement cognitif dans la théorie des choix rationnels.

In this article, the author raises a few points on the relationship detectable between cognitive processes and behaviour patterns in the rational consumer.

Assuming that his rationality is expressed in the optimal use of the information available, the rational consumer has to come to terms with two contrasting groups of forces, i.e., a first group includes the forces that prompt changes in his tastes, and a second group of forces that urge him to keep his preferences unchanged even in the event of changes, however small, in the corresponding prices. The solution suggested by the author for dealing with these conflicting forces is entirely consistent with the cognitive processes and aims, following Simon's lesson, to introduce cognitive foundations in the theory of rational choice.

## Introduction



A recent paper of ours (1996) dealt with the topic of changing preferences within a chronological sequence of temporary equilibria. The paper focused mainly on identifying the conditions which ensure consistency between expected plans and implemented plans, paying attention to the problems raised by the so-called "dynamic inconsistency". The change in preferences is assumed as a constitutive element of the model and a theory is briefly outlined for interpreting said change on the basis of several concepts of social psychology.

In the present paper, the previously-outlined interpretational theory is further developed, drawing from a more thorough analysis of the social and cognitive processes that generate changes in a consumer's orders of preference. Since Katona (1963: 135) pointed out that the origin of change in attitudes and expectations constitutes one of the most stimulating problems of economic psychology, we can add that the consequences of such change represent an intriguing topic for the economic sciences. In this context, certain results that we consider significant coming to light in social psychology and the cognitive sciences lead us to develop some considerations that come to bear on possible developments of the theory of consumer choice.

### Changing preferences and economic analysis

It is common knowledge that orders of preference have a fundamental importance in economic analysis, occupying a core role in the study of the consumer's maximising behaviour because, in a sense, together with the budget resources available, they represent the system of constraints within which he can manoeuvre and from which he cannot escape. He can only depart from them if his resources change or, as we said before, if his preferences change. In fact, the choices made by the consumer are ideally suited to a given structure of preferences; a problem of dynamic inconsistency may consequently emerge in relation to a sequence of choices, each of which coincides with a specific and unique order of preferences.

Standard economic analysis has overcome this inconsistency either by working on the assumption that preferences are stable throughout the time horizon of the consumer's life cycle or, in the event of their being assumed to change, by assuming that the consumer is perfectly aware of his expected orders of preference. Our interest in changing preferences, as we shall see, becomes particularly keen when we consider the consistency of multi-period plans that may cover the consumer's whole life cycle, and during the course of which the consumer may exhibit a change in his preferences, at least once.

The fact that preferences change, after all, is what justifies the battle undertaken by companies on the market to influence the real behaviour of actual and potential customers through advertising. Of course, introducing the hypothesis that preferences can change makes any analysis of consumer behaviour more complex, which also helps to explain why standard economic doctrine is so unwilling to accept such a hypothesis. The reasons for standard economic theory having considered preferences as stationary lie, among others, in the contributions from von Weizsäcker (1971), Streit and Werner (1992), Woo (1992), Hogarth and Reder (1987), and Weise (1992), and all such reasons can be perceived in the economists' inclination to leave it up to the sociologists and psychologists to analyse the factors influencing changes in orders of preference.

There are basically two hypotheses that can be formulated on this matter, however, i.e., either that changes in preferences occur endogenously, or that they are due to exogenous factors. On the basis of the first hypothesis, we can imagine that changes occur in preferences as a result of cognitive and motivational pressures type entirely within the consumer (Trentin, 1995: 272) and consequently by means of processes of autonomous determination of the preferences concerned.

On the other hand, an approach that assumes that changes in a consumer's preferences are stimulated by external factors is based on an analysis of the interaction between the environment and the individual (Mistri, 1996). The explanation of said interactive processes forms the object of



study both for the psychological analysts and for the sociologists (Ragone, 1993). Sociological analysis seeks the need-forming processes in the role that social pressures succeed in exerting, but tends to disregard the other, nonetheless relevant matter of the role exerted by the cognitive mechanisms governing the process of signal elaboration — a process that the consumer implements both as a subject belonging to a social group and as an individual seeking self-expression, as the psychologists say.

### **Attitudes, behaviour patterns and preferences**

The assumption of a genetic theory of preferences leads us to investigate the complex and multi-directional relationship detectable between attitudes, behaviour patterns and preferences. Such research is based on the notion that preferences are an expressive modality of behaviour patterns, if by "behaviour" we mean the choices made by the consumer and the consequent actions he takes. It is worth noting that psychological science has attempted to identify the possible links between behaviour patterns, which are revealed choices, and attitudes, which express a disposition to choose and may be considered as proxies of behaviour patterns (Gergen and Gergen, 1986: 246). The psychologist is particularly concerned with the way in which attitudes develop and with any discrepancies between attitudes and behaviour patterns.

Despite the considerable interest that attitudes have not only for psychology, but also for the marketing-correlated disciplines, an unequivocal definition of attitude does not seem to emerge from the psychological literature (Trentin, 1991: 11). Trentin defines attitude as the set of all the elements of a cognitive and affective nature and of the tendency for action that it can contain. The attitude may be the outcome both of direct experience and of mediation by parental figures, reference groups, and mass communication media (Trentin, 1995: 233). Attitudes therefore "anticipate" an individual's behavioural protocols in the whole range of expressions, including tastes, and consequently also the concrete choice of goods. The very theory of monopolistic competition has demonstrated the economic significance of the differentiation of goods and psychological science can easily illustrate the valence of such differentiation in terms of the consumer's attitudes.

As for the formation of attitudes, and therefore also of orders of preference, psychological theory has now come to take an eclectic stance, having tried for a while to seek an explanation of behavioural or mechanistic type, based on the relationship between "stimulus" and "reaction". This mechanistic framework lies behind the traditional economic theory of needs. Really, at the basis of this theory, there is an "innatist" concept of needs and thus also of consumer behaviour, which is the practical modality for satisfying the needs. The theory of utility, in its commonly-accepted sense, considers the consumer as an optimiser, whose actions are usually known as "primary needs", which derive from primary animal impulses. Clearly, this class of needs is only a part of the whole range of consumer's needs — and in modern society it is not even the most relevant part. Although even the "means" to satisfy these primary needs are largely influenced by the educational processes that every consumer undergoes during his life, with a little license it is nonetheless feasible to suggest that the educational content of the process by means of which primary needs are satisfied is scarcely significant, so they can be considered as inborn, and consequently not liable to modification due to social pressures.

Harré (1979), for example, is critical about the "innatist" concept of attitudes, observing that such a concept is based on the assumption that an individual is completely independent of society, so that the relations the individual has with society have no influence on him whatsoever. In truth, it is equally legitimate to suppose that, alongside the primary needs, there are other needs which are the outcome of learning processes both through the so-called "social modeling", and through autonomous cognitive processes of elaboration, so that the consumer "learns about his tastes" from experience. This is a point raised by Katona (1975: 44).

Criticism of the "innatist" approach consequently emphasises the role of socially-mediated educational processes, and with McShane we can say that innateness and education form the basis of and determine the acquisition of both ability and behaviour (McShane, 1991: 41).



### **Social learning**

On the assumption, therefore, that tastes are mainly acquired by learning, we can soon see the importance of the social communication processes and cognitive processes by means of which the consumer elaborates his models of behaviour as regards the procurement and consumption of goods. On the one hand, he learns through observation and imitation, and this aspect is called "social modeling" (Fischer, 1987: 22) in the sense of the imitation of subjects who act as models in a given environment. In our earlier work (Mistri, 1996), we defined this environment as "evolutionary", i.e., as the setting in which various pressures come to bear on the consumer to remodel his consumption arrangements, which may change under the influence of the reference groups, but also by other means.

In analysing the genetic processes behind attitudes, social psychology has in fact demonstrated the existence of a pluralism of forces that take effect in influencing these attitudes. For example, in forming his attitudes, and consequently also his tastes, an individual can be considered as coming under the influence of two fundamental and opposing forces. The first is the need to conform, so that changes are brought about in the individual's behaviour patterns so that he can comply with the pressures of the reference group, making an effort to be in harmony with the group by adapting to its proposed or imposed set of rules (Fischer, 1987: 100). The second is the reactive tendency representing the formation of a negative motivation, linked to the awareness of his loss of independence, which is converted into a tendency to resist outside influence (Fischer, 1987: 116). These two forces are capable of exerting themselves in a totally different way, depending on the period in the individual's life cycle. Thus, childhood psychology strongly emphasises how young people move from a phase of conformity to family-imposed models to a reactive phase in which these models may be questioned and during which the young person seeks new reference points; this latter phase may last for a more or less lengthy interval.

### **Cognitive processes and changes in tastes**

In our theory, tastes are a specification of behaviour patterns and behaviour patterns are modalities for implementing attitudes. Hence the attention to changing attitudes, in line with the concept emphasised by Arcuri, according to which changing attitudes are a topic that has attracted a good deal of attention from social psychologists (Arcuri and Massi 1995: 272-273). From this particular standpoint, it could be said that the doctrine tends to consider attitude-changing, and consequently also behaviour-changing modalities from two different perspectives, i.e., using either a behaviourist approach or a cognitivist approach. The former emphasises the role of the various stimulating factors, whereas the latter focuses on studying the mental processes of the recipient, and particularly on the need for "cognitive consistency", which means that a phenomenon of so-called "cognitive dissonance" occurs when said consistency is lacking, creating a sort of psychological contradiction in the individual. This contradiction can be overcome by means of a change in attitude and possibly also in behaviour (Gergen and Gergen, 1986: 251).

Be that as it may, the cognitivist approach enables us to go beyond the mechanical relationship between the environment and the individual that is implicit in the social modelling theory, because it emphasises the importance of the autonomous processing of the signals that the individual receives from the environment. In other words, the stimuli from the environment and from the social group of reference are essential, but are not exclusively responsible for establishing the person's reactions, which also depend on the latter's cognitive structure (Arcuri, 1991: 134). This is one of the reasons why it is impossible to predict the nature and extent of the reaction that a given individual may have in relation to environmental changes.

The passage from one system of attitudes and behaviour patterns to another does not seem to take place along a continuum, but tends to skip from one phase to the next. In the previous paper (Mistri, 1996), mention has already been made of the "punctuated equilibria" to express these skipping dynamics; the new equilibrium condition marks the end of the latest phase of learning.

While this process is underway, the consumer perfects his understanding of his own orders of



preference, and that is why we described the learning of preferences as a Bayesian process (Mistri, 1996). Once this Bayesian process has been completed, the behaviour patterns become stable.

### Consumer habits and routines

The stabilisation of the behaviour patterns means, for our purposes, a stabilisation of the orders of preference, which will change no more unless the consumer goes through a new phase of cognitive dissonance. It is worth noting that the stability of behaviour patterns and preferences can be intended as the acquisition of genuine habits (Amerio, 1995: 92).

The concept of habit is unfamiliar to consumer behaviour theory; however, the use of this concept would hardly be out of place as part of a theory of consumer behaviour designed to incorporate significant interpretational tools borrowed from psychology. In economic analysis we already find the concept of "routines", that Egidi (1995: 370) defined as repetitive behaviour patterns, memorised and contextualised by individuals, that normally involve several agents. Consumer habits can, after all, be conceptually compared with routines to which the consumer resorts when he has to deal with choices that are periodically repeated and that exhaust his financial resources for a given period, say for a month.

In a sense, consumer routines are a phenomenon in total contrast with changing preferences; they are a stabilisation of choices. This stabilisation can remain effective even if the prices of the goods going into the consumer's basket vary from one period to another, providing that any such variations are relatively limited. In dealing with a phenomenon of this kind, we are led to wonder whether the consumer's behaviour is really very sensitive to "minor" price adjustments, or whether he deliberately chooses not to change the structure of his basket in the case of such minor variations, providing that everything else remains unchanged.

According to standard theory, in the event of a change, however small, in the relative prices of goods that may go into the basket, the consumer will be induced to change the structure of his basket. This is not true of the case in point, however, and the reason for this sort of behaviour can be sought in the logic supporting Simon's theory of bounded rationality (Simon, 1982). With every change in the prices of goods in the basket, the consumer would have to "reformulate all his calculations" in order to maximise his personal utility function, given that he is restricted by the resources available. Assuming that the consumer's computational capacity is limited, the "cost" of the recalculation is greater than the advantage that he would draw from making the slight adjustment to his basket. His habits thus represent a sort of mechanisation of the practical solution to the problem of how to establish ideal baskets in sequence if price changes come, as we said, within a sufficiently small range of variation.

### Consumer routines and procedural rationality

Behind the idea that consumers identify a sort of trade-off between the effort that they must make to recalculate the utility deriving from various goods and the actual utility deriving from said goods, there is a specific representation of the market structure, with its variety of comparable goods.

We are therefore within the logical framework of a monopolistic competition, so the consumer is faced with an abundance of qualitative varieties of similar products. This poses the question of what criteria he uses for choosing toothpaste "a", for example, instead of toothpaste "b" or toothpaste "c". He may make a choice *a priori*, without considering whether one toothpaste is really better for him than another. The standard theories on how consumers make choices and on how they reveal preferences are consistent with a competitive market, but are unable to provide a scientific basis for the concept of consumer rationality in a situation of monopolistic competition.

In this context, the rational consumer is rational if he tests comparable products in series. His failure to do so, however, stems not from any hypothetical "irrationality" on his part, but from his consideration that such an operation is pointless in practical terms. The uselessness of drawing comparisons by means of a series of tests may be apparent even when the prices of the goods

differ to some degree, because the utility function also involves certain factors, such as being fond of a given product, that — within limits — can override the discomfort deriving from a modest increase in its price.



### Conclusions

Our consumer is therefore rational, not because his awareness of his preferences is based on the specific utility that he knows he can gain from the various goods, but because he learns about his own utility function. In a sense, the consumer has a rationality that is of “procedural” type, as Simon suggested (1976), so that the choices he makes are the consequence of his adopting a cognitive type of heuristic.





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