

On Custom

by

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Custom is a key factor for economic performance. Social and economic institutions build on it. The purpose of this paper is to reflect on the motivational force of custom *per se*, as brought about by history. History creates entitlements, and these influence behavior. Custom is thus understood as a set of behavioral dispositions inherited from the past. In this, the present considerations deviate from earlier approaches that take custom as being stabilized by external rewards and sanctions alone. (JEL: A 14, N00, A 13, Z 1)

Introduction

Custom is a key factor in social and economic interaction. Its significance for every-day market transactions is patent. Contracting and co-operation rely on it. Social and economic institutions build on it. It forms an important part of social capital. In all that, custom is of prime importance for economic performance.¹

The purpose of this paper is to reflect on the interaction between custom and economic processes. I shall stress the motivational force of custom *per se* as brought about by history. History creates entitlements, and these influence behavior. Custom is thus understood as a set of behavioral dispositions inherited from the past. In this, the present considerations deviate from earlier approaches that take custom as being stabilized by external rewards and sanctions alone.²

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¹ On institutions and social capital as central determinants of economic performance, see Douglass NORTH [1990] and James COLEMAN [1988].

² See especially George AKERLOF [1976], [1980], Andrew SCHOTTER [1981], David ROMER [1984], and Robert SUGDEN [1986]. Karl-Dieter OPP’s [1979], [1982], [1990] excellent discussion of norm formation and norm dissolution goes beyond that because he takes recurrent behavior as a basis for norm formation, and I am following this approach here. Carl-Christian von WEIZSÄCKER’s [1983] idea of “adaptive preferences” and Timur KURAN’s [1987, 654–661] view of preference adaptation follow a similar idea. These

In the first part of the essay, I illustrate briefly the importance of custom for every-day market transactions. It is argued that custom renders many otherwise unfeasible transactions possible. Custom may however also block certain transactions. There is a good and a bad side to it.

Custom is shaped by past experience and will thus respond to long-term changes. In the second part I review therefore the position that custom adapts to economic circumstance, a position developed by Alfred Marshall. This view comes down to understanding custom as the equivalent to friction in the social world. Such a perspective fits nicely with various changes of customary arrangements, but it can neither account for rigidities and inefficiencies of custom that we also observe, nor can it deal adequately with customs that are individually costly to obey yet not backed up by external sanctions. I turn therefore in the third part to a possible explanation for rigidity which builds on psychological dispositions of man. It is argued that we may understand the (limited) rigidity of custom in this way, but not the establishment and growth of a new custom. In part four I sketch the problem and argue that we must draw again on social psychology to gain some insight here. A conclusion follows.

1. The Place of Custom in Economics

1.1 Custom, Entitlements, and Moralistic Aggression

The efficiency of every-day market processes depends critically on customary ways of behavior. We pay after a taxi ride, and this cannot readily be explained with reference to untrammelled selfishness of the parties involved³: I may fear retaliation by the taxi driver if I don't pay. However, after having handed over the money without receipt, our mutual bargaining position will not have changed in the least. The taximeter reading is still the same, the physical strength of the taxi driver appears as threatening as before, and I have still some cash in my pocket. So why does the taxi driver not insist that I pay again, and why shouldn't I comply if I did before?

One possible answer is that *moralistic aggression* serves as an effective enforcement mechanism in these cases. The parties may be prepared to defend whatever they perceive as their *entitlement*, even if they can't expect any immediate benefit from such an action, and even if it involves some cost to them.⁴ Under such an assumption, the taxi driver would act aggressively if I tried to walk away without paying, and I would act aggressively if the taxi driver

approaches relate to what I am going to describe as "adaptive custom" in section 2. I start from these ideas but try to go a step further.

³ See Kaushik BASU [1984, 5–7] for a pertinent discussion.

⁴ See Benjamin KLEIN, Robert CRAWFORD and Armen ALCHIAN [1978, 305], who refer to the biologist R. L. TRIVERS [1971] with regard to moralistic aggression. Gisela KUBON-GILKE [1993] relates moralistic aggression to the more comprehensive notion of "requiredness" in Gestalt Psychology.

requested me to pay twice. Both of us expect this, and after calculating costs and benefits we both conclude that demanding and paying one fare is the preferred action for both of us. We may even skip the calculation if we went through similar episodes before and have acquired the appropriate strategy as a matter of routine.

Many every-day transactions rely in this way on entitlements which generate a threat of moralistic aggression that stabilizes the transactions. This moralistic aggression is irrational in the sense that it would require each of the parties to engage in actions that would make them worse off. It is precisely this psychological disposition to act in non-normal cases that sustains a smooth transaction in the normal case.⁵

The importance of custom stems from the fact that it creates entitlements and preferences which shape economic transactions in the manner described above. In this way, custom may render many economic transactions possible without a need to rely on elaborate and costly safeguards. In this, custom may contribute to economic efficiency.

Yet custom is not always advantageous. Customary wage differentials may be maintained because people insist on maintaining them. This may block improvements in the allocation of resources. Further, the same mechanism that stabilizes the payment for a taxi ride may lead to costly conflicts. Assume that the taxi driver erroneously made a detour. He may feel that he is entitled to the full fare as shown by the taximeter, but I feel that he is entitled only to a somewhat smaller amount, and a conflict may result that inflicts high costs on both of us.⁶

The motivational force of entitlements thus eases many economic transactions, but the same behavioral disposition may yield very harmful consequences under other conditions. This may be compared with the laws of visual perception. They allow for remarkably efficient pattern recognition in every-day life, but under certain conditions they produce visual illusions.

There are also other influences which contribute to generating entitlements and unleash the possibility of moralistic aggression – education, ideology, religion. All these influences join with custom to shape behavior. It seems appropriate, however, to concentrate on one factor alone, and I have chosen custom.

⁵ This type of behavior may lead to a more desirable outcome in the long run and may thus be considered rational in a wider sense (Robert FRANK [1988], [1989, 13]). However, FRANK [1989, 6] notes a problem with this: “If there are genuine advantages of being vengeful or trustworthy and being perceived as such, there are even greater advantages in appearing to have, but not actually having, these qualities.” The maxim “never tell a lie” seems to be individually less efficient than the maxim “never tell a lie if it can be found out, otherwise tell lies if it is to your own advantage.” Frank terms this the “problem of mimicry.” But if mimicry is better than truthfulness, truthfulness can only be sustained by foregoing some gains.

⁶ In a similar event reported by Erwin TOCHTERMANN [1992], the female passenger injured the taxi driver and smashed his spectacles.

Custom, understood in this sense, provides the groundwork of property and contracting, and therefore of economics in general. Property cannot be traced back to market exchange, since market exchange presupposes property. We may only say that a certain form of property emerges because it facilitates exchange, and this involves efficiency gains which render such an arrangement dominant in social evolution (John HICKS [1969, 33–34]). Such an argument does not explain where the behavioral impact of property emanates from, nor which form property might take. It presupposes all that. It says only: If private property rather than some other form is there, this will have beneficial results for society. In this sense, it contributes to our understanding of property, but it does not explain why the world changes if something is assigned as being the “property” of some person. The behavioral impact of property, which must be presupposed here, stems from custom, and its importance derives from the fact that the assignment of property rights has behavioral implications.⁷

Or consider contracting itself: A contract is just an exchange of promises which are conditioned on each other, some sound waves, some patterns of ink. These promises entail that the contracting parties will obey these promises *even if this is to their individual disadvantage* if the other party makes a similar promise. The important point is here that contracts prevent some self-seeking actions in the future and therefore have behavioral impact. There would be no need to conclude a contract if it had no behavioral impact, and my promise to behave strictly selfishly under all circumstances will not fetch a price.⁸

⁷ Note that the theory of property rights assignments proposed by Oliver HART and John MOORE [1990] is entirely based on the *behavioral assumption* that the assignment of property rights influences the bargaining outcome. Their behavioral assumption is that surpluses are split according to Shapley values, and this assumption – which is not based on any psychological or rational theory – drives their results. Another behavioral assumption about the influence of “property” on bargaining would lead to other property rights assignments. (I owe this observation to the discussion in our “Kränzchen”.)

See Thrainn EGGERTSON [1990] for references and a survey of theories about property rights.

⁸ I thus take contracts to deal with – possibly limited – conflicts, where it is in everybody’s interest to default provided the other party observes the contract, and where the other party’s obedience is brought about by my own promise not to defect. In contrast, pure co-ordination problems may be solved by simple agreements.

Note also that the above discussion is simplified in that third parties are not invoked in the argument. The main conclusion is not affected by that however: Symbolic action must trigger the behavior of these parties. This can only work through motivational channels, since no real incentives are changed by my uttering of the words “I agree.”

Further, the argument is simplified in that the idea of “self-enforcing contracts” is not pursued. This idea refers to a contractual design where a party will lose future benefits if it interprets implicit understandings opportunistically (Benjamin KLEIN [1985]). Such a design rests entirely on shared notions of fairness and appropriateness and must rely on moralistic aggression as the ultimate enforcement mechanism.

Kenneth ARROW [1990, 139] has stressed in this connection the fundamental nature of contracting for economics which presupposes a shared “language”, a “kind of commercial morality,” and additional enforcement mechanisms.

The importance of custom to contracting carries over to economics in general, since contracting is central to economic processes. Market exchange, certainly one of the core themes in economics, is just one form of implicit or explicit contracting. Institutional economics as well as political economics, labor economics, and various branches of microeconomics have stressed that economic activity involves contracting from the outset. We even find the view that institutions in general are just clusters of individualistic contracts!⁹ To stress that all contracts build on custom is ultimately to say that all contracts are relational contracts in some sense: They are embedded in a social whole (Ian MACNEIL [1985]).

1.2 Economics as a Propellant of Custom

Thus economics builds on custom. This suggests a relativistic – or rather *culturalistic* – perspective: We may take culture – the prevailing set of customs and interpretations – as parametrically given and start our analysis from that. This would ease our task in that we could leave the cultural issues to the sociologists, anthropologists, and psychologists. At the same time, it would render our task quite unsatisfactory since our conclusions would depend very strongly on our arbitrarily chosen assumptions about the cultural framework, and this would render them arbitrary themselves.¹⁰

Such an approach is not feasible if we are interested in institutional matters. Economic processes shape custom. Custom is malleable and adaptive to economic circumstances in many ways, and both institutional changes and changes of custom require the same time-scale to work themselves out. If institutions shape custom and build on custom, we are not permitted to fix custom under a *ceteris paribus* clause save for purely hypothetical purposes.¹¹

There are also important theoretical issues involved here. Our usual *homo oeconomicus* assumption neglects the behavioral impact of custom. Given the economic importance of custom, this is unsatisfactory, and we may try to render our view of human nature more adequate by facing the question, rather than by side-stepping it. Further, a theory about the formation and dissolution of custom will remove some of the arbitrariness in our (implicit or explicit)

⁹ The view that institutions are just contracts has been elaborated e.g. by Michael JENSEN and William MECKLING [1976] and Armen ALCHIAN [1984] with respect to the firm and may be extended to other institutions.

¹⁰ Thus economics should not be seen as “embedded” in social structure, as some sociologists maintain (Karl POLANYI [1977, 19–56], Mark GRANOVETTER [1985], and Sharon ZUKIN and Paul DiMAGGIO [1990]). Social structure and economic processes affect each other and there is no point in insisting that the one is “embedded” in the other.

On a criticism of the view that social structure “logically antedates the market,” see also Kaushik BASU, Eric JONES and Ekkehart SCHLICHT [1987, 6]. On the general issue of cultural relativism, see Solomon ASCH [1987, chap. 13], SCHLICHT [1990].

¹¹ See BASU, JONES and SCHLICHT [1987, 6]. The “isolation principle” underlying this argument is elaborated in SCHLICHT [1985 a, chap. 1].

assumptions which we have to make in economics. This will render our assumptions and results more reliable.

It thus seems worthwhile to think about the interaction of custom with economic processes. The large issues are, however, too big for me. So I shall approach the problem by discussing some smaller topics, and I will not be able to settle even the small questions which I am going to raise. I can only hope that the questions are somewhat new and interesting.

2. Adaptive Custom

2.1 Dimensions of Growth and Erosion

A custom – that is, an established behavioral rule in society – may be characterized in two dimensions.

Scope. A custom establishes a certain regularity. Whenever an event of a certain type occurs, it requires a certain response. Thus any custom has a certain scope of application. This scope of application is usually fuzzy. A taxi driver may expect a tip, but not necessarily the driver of the shuttle bus, and certainly not the pilot of an aeroplane.

Level. Sometimes there is only a simple choice either to comply with a custom or not, but often the level of a customary obligation can be changed. A tip may vary in size. The level of a custom is usually fuzzy. The tip may be rounded in one or the other direction.

We may thus think of a certain custom – like giving gratuities for certain services – as characterized by a *general rule* which links certain actions to certain events. The *scope* of the custom is given by the set of circumstances to which it applies. Its *level* is given by the intensity, if this can be varied.

Further, a custom may be characterized by its strength:

Compliance. This refers to obedience to the code. One way of thinking about this would be to take compliance as measuring the relative frequency of obedience in situations where the custom applies.

Growth and erosion of custom may accordingly take place in those three dimensions: Compliance may increase or deteriorate, the scope may expand or contract, and the level may go up or go down.

Further we may think of the rule itself as changing, leading to *drift* rather than simply to growth or decay.

2.2 Custom as a Determinant of Economic Behavior

Custom often takes the form of routines. Much of economic behavior is simply routine behavior, and in this sense guided by custom, often to the point that we are not aware of following it; it may be present as tacit knowledge in the sense of Michael POLANYI [1962]. Richard NELSON and Sidney WINTER [1982, 99]

propose “that the routinization of activity in an organization constitutes the most important form of storage of the organization’s specific operational knowledge.”

Often custom works by shaping norms which guide behavior. Daniel Kahnemann, Jack Knetsch and Richard Thaler have for instance argued forcefully that fairness perceptions influence economic behavior. They point to the fact that in many settings people prefer fair over unfair actions even if this is to their own disadvantage, and to punish unfairness, even if this involves some costs.¹² Fairness standards are, however, a matter of custom. As Kahnemann et al. put it, a transaction is compared to a “reference transaction” and divergences are considered unfair. They emphasize that “the reference transaction provides a basis for fairness judgements *because it is normal, not necessarily because it is just.*”¹³ In other words, the fairness standard is a matter of custom, along with many other social norms.

Custom thus exerts normative force and strongly affects behavior, by inducing a preference to behave according to the custom, by creating entitlements, and by inducing moralistic aggression against deviating behavior.¹⁴

2.3 The Malleability of Custom

Custom is, however, not a firm given on which our analysis can rely; it changes over time and adapts itself to new circumstances.

First, custom refers to what is *normal*, it tends to perpetuate what has occurred before. This is confirmed by many psychological studies of adaptation which “suggest that any stable state of affairs tends to become acceptable eventually, at least in the sense that alternatives to it no longer readily come to mind. Terms of exchange that are initially seen as unfair may in time acquire the status of a reference transaction. . . . The gap between what people consider fair and the behavior they expect in the marketplace tends to be rather

¹² KAHNEMANN, KNETSCH and THALER [1986b, 736]; see also David SCHMITT and Gerald MARWELL [1972], Werner GÜTH, Rolf SCHMITTBERGER and Bernd SCHWARZE [1982]; and KAHNEMANN, KNETSCH and THALER [1986a].

¹³ KAHNEMANN, KNETSCH and THALER [1986b, 730], emphasis added. See also OPP [1982, 144–147] for a statement of the sequence recurrent behavior-preference formation-norm formation from the point of view of modern social psychology and SCHLICHT [1986] for a discussion of this from the point of view of Gestalt Psychology.

¹⁴ As an illustration, there is currently a truck driver protest going on in France. It is now in its second week and has devastating effects on the French economy. The reason is that the French government wants to introduce a law which will lead to the withdrawal of driving licenses in case of repeated and severe traffic violations. The current practice has, however, created an entitlement on the side of the truck drivers to break the law, and this is not at all a unique event (Rudolph CHIMELLI [1992]). Quite often, custom is stronger than written law. Often written law adapts.

small.”¹⁵ Repetition focuses expectations on continuation. Custom establishes standards as a matter of mere inertia and releases the motives to maintain them, even at some cost.

Second, custom is *fuzzy*. It is never sharply defined, neither with regard to its scope, nor with respect to its level, nor with respect to required compliance. Alfred MARSHALL [1961 a, 638] has observed for instance that “... the payments and dues which custom is supposed to stereotype, nearly always contain elements which are incapable of precise definition; while the accounts of them handed down by tradition are embodied in loose and vague impressions, or at best are expressed in words that make no attempt at scientific exactness.” Similar statements could be made with respect to scope and compliance.

Fuzziness allows for slight deviations. Persisting deviations will appear normal. In this way, a custom may be evaded by “gradual and imperceptible changes” (MARSHALL [1961 a, 559–560]). In this sense, custom is malleable and will react to economic circumstance.

2.4 Erosion

Since custom is fuzzy and adaptive, this leads to erosion. If it is advantageous to corner the custom in borderline cases, this will be done and the custom will erode. Consider the following illustration.

Level Erosion in Tipping. Think about tipping. Let C denote the customary size of the tip (the norm), and let c denote the size of the tip that the typical individual chooses. The individual tries to maximize his utility

$$(1) \quad u = u(c, d(C, c)).$$

The individual prefers a low tip c for economic reasons, and tries to minimize the difference d between the size of the tip c and the social norm C in order to comply with the custom. The corresponding marginal utilities are negative, therefore:

$$(2) \quad u_c < 0, \quad u_d < 0.$$

The deviation between the tip c and its norm C will increase with any increase in the difference between c and C and will be minimized for $c = C$:

$$(3) \quad d_c \cdot (c - C) > 0, \quad d_c(c, C) = 0 \quad \text{for } c = C.$$

¹⁵ KAHNEMANN, KNETSCH and THALER [1986 b, 731–732]. See also Brenda MAJOR and Maria TESTA [1989] who have shown that unequal treatment of men and women induces comparisons of men among themselves and women among themselves and reduces subjectively felt inequity thereby. It remains, however, an open question whether a persisting famine among the poor will induce people to consider this to be a normal state of affairs.

Utility maximization requires

$$(4) \quad u_c + u_a \cdot d_c = 0$$

and thus together with (2) and (3)

$$(5) \quad c < C.$$

In other words: given that tipping costs something, it will always be optimal to cheat slightly on the code. If custom is fully adaptive, the average level of tipping c – which is below C – will drive the customary level of tipping down and level erosion will result.

Scope Erosion in Tipping. The problem of scope stabilization is similar. Consider again the custom of giving gratuity for “taxi rides.” The concept of a taxi ride is fuzzy, however. This invites scope erosion. There will be borderline cases where it is unclear whether or not a certain trip actually constitutes a taxi ride that requires tipping. Economic self-interest will invite cornering the code in those borderline cases. If categorization proceeds in a purely adaptive fashion, this will lead to a contraction of the scope of application. This process may continue until the custom is fully eroded.

In a similar way we may speculate about compliance erosion.

Ultimately, custom should be expected to adapt to incentives. We should expect erosion of all customs which induce individuals to forego their own advantage. Thus we should expect erosion of socially advantageous as well as socially inefficient customs as long as it is not “individually rational” to pursue them.

2.5 Custom as Friction

Thus custom, seen in this way, “rounds off the edges of change” (MARSHALL [1961 a, 641]). It does not block the effects of economic incentives but slows them down. It plays “the same part in the moral world that friction does in the mechanical” (MARSHALL [1961 b, 140]). There would be no need to worry too much about the role of custom in economics. It would suffice to say that adaptive custom introduces inertia.¹⁶

We may think that customs may be maintained by a system of sanctions and rewards which render the gains from compliance larger than the gains from defection (ROMER [1984]). This argument neglects, however, the problem of fuzziness which will render stabilization difficult in borderline cases. There cannot be sanctions in borderline cases since it is unclear whether the custom has been observed or not, and thus the individuals’ self-seeking behavior will govern growth or erosion. *It is only if the sanctioning mechanism itself is not*

¹⁶ Richard SWEDBERG [1993] provides a more elaborate and complete discussion.

adaptive that custom may be prevented from adapting in a smooth manner. But the sanction mechanism itself is largely a matter of custom. For example, the caste system is sustained by a system of customary sanctions, and we should thus expect it to erode from its fringes.¹⁷ This has, however, not occurred.

3. Rigid Rules

3.1 Rigidity

The adaptive view of custom rules out any custom persisting that is individually costly to obey. We should expect erosion of such customs, quite irrespectively of whether they are socially beneficial or harmful. Yet many customs that are individually costly to observe have endured for a long time. Religious sacrifices provide examples.¹⁸

Further, the same argument suggests custom adapts smoothly to slowly changing conditions. However, custom seems to be rigid to some extent, and continuously changing conditions may go along with discontinuous changes in the associated set of customs.

By rigidity I refer to *constancy over some range of conditions*. Rigidity, so conceived, is always local or partial. Only small changes leave the custom unchanged, but large changes in circumstances may change the custom or even break it down altogether.

Such rigidity is of central importance for the workings of custom. Any fully adaptive custom, even if very sticky, could only slow down the speed of trans-

¹⁷ KURAN [1987, 662–664] vividly describes the social mechanisms which contribute to stabilizing the caste system. The argument which he advances seems to me, however, to be open to the erosion critique unless some psychological mechanisms are postulated similar to those outlined in the following.

¹⁸ Sometimes it is argued that sacrifices may serve useful functions and this explains their stability over time. Laurence IANNAcone [1992] has argued for instance that sacrifices may serve as screening devices. Apart from the functionalism problematic the general point against this is that many religious sacrifices are economically wasteful and might be substituted by equivalent productive or redistributive sacrifices. This should benefit both the individual and the congregation, but we usually don't observe that. (Nobody gains if I castigate myself. If I had to pay an equivalent fine, somebody else would be better off. Still we find that economically wasteful penances continue to exist.)

Some religious practices are in fact extremely dangerous and harmful, like some incredibly drastic forms of circumcision. Any alleged "function" of these practices can be served better by other means, but there is simply no sensible function in peeling the entire penis under the gamble of lethal infection and infertility. Erosion could occur quite easily, just analogous to erosion of tipping discussed in section 2.4 above: circumcisions could be performed less drastic, and this would drive down the standard. This has, however, not occurred. All this points to some important puzzles in the theory of institutions. (On male circumcision, see Nigel BARLEY [1986, 49], on female circumcision, see Sue ARMSTRONG [1991, 22], on economic aspects of this and related phenomena like "holy cows," see SCHLICHT [1993]).

mission of economic incentives. They would work faster otherwise. A rigid custom may however channel economic forces in an entirely different direction and affect economic performance significantly thereby. Further, a set of somewhat rigid customs may form an interlocking system with much greater overall rigidity. Such a system may appear as an independent, and even hostile, set of conditions which “lock in” the very human actors who created it.¹⁹

Partial rigidity of custom may also occasion the rigidity of institutions. This thought may contribute to an understanding of the apparent autonomy of institutions that seem to shape human action rather than emerge from the interaction of innumerable disconnected individuals.

In the following, I shall sketch a mechanism that may lead to (partially) rigid customs.

3.2 Customs as Rules

Customary behavior is rule-guided behavior. The rules of custom link certain situations to certain types of required behavior. These rules must be learned, and this fact constrains their shape and may ultimately give rise to stickiness.

Rule-learning involves the identification of constant, regular, and simple patterns that are then used to guide behavior. Thus rules are acquired by induction. They extrapolate a given experience in the simplest possible manner. The reference to simplicity is important here, since any given experience may be extrapolated in infinitely many ways. Among those possible extrapolations, only the simplest are used, and this renders rule-learning possible.²⁰

It is beyond the compass of this paper to discuss the nature of rules and rule formation in general. The points I want to raise can, however, be introduced by means of an example.²¹

¹⁹ I am referring here to “critical mass” phenomena, “network externalities,” and related phenomena (SCHELLING [1978, chap. 3], SCHLICHT [1985 b], DAVID [1985], KURAN [1987], ARTHUR [1989], WITT [1989], OPP [1990]). Note, however, that even these phenomena are vulnerable to erosion in level or scope. They are usually of local nature. Given this local character, even strong network externalities will not ultimately prevent the spreading of a better substitute. If a better telephone system is available, a big firm will employ it internally even if it has not been established economy-wide. Other firms will behave alike, and the more efficient system will eventually spread. The touch-tone phone provides a case in point, and LIEBOWITZ and MARGOLIS [1990] discuss DAVID’s [1985] QWERTY example. Similarly, a family or a religious congregation may provide locally a sufficient critical mass and serve as a seed crystal for a better custom. I am going to argue that such erosion may be prevented by cognitive and psychological mechanisms.

That small micro rigidities may lead to pronounced macro rigidities is a conjecture.

²⁰ I use the term to include interpolation. On the fundamental ambiguity of extrapolation and the part of simplicity in rule learning, see also SCHLICHT [1979, 55–61], [1984, 64], on the role of simplicity in statistical inference, see Roy HARROD [1956, chap. vi] and Harold JEFFREYS [1961, 4–5, 47]).

²¹ The subject is usually treated in a very nebulous manner. Many arguments which build on the importance of rules leave open which feature distinguishes a rule from a

3.3 The Game of Cards Eleusis

The game of cards “Eleusis” illustrates the pertinent problems nicely.²² It is played as follows: One of the players, the “regulator”, invents a rule for possible sequences of cards (such as alternating between “red” and “black”) and secretly writes it on a sheet of paper. The cards are distributed among the remaining players, and each of them tries in turn to add one card to the sequence of cards in the middle of the table such that it fits the rule. If it does not, he has to take it back. Each of the active players tries to get rid of as many cards as possible in this way, and the regulator tries to maximize the difference between the result of the strongest and the weakest players by selecting a rule that is neither too complicated nor too easy.

To illustrate the processes occurring here, consider the sequence of cards depicted in figure 1.

This sequence is certainly compatible with many rules, such as:

R1: Play always *club, diamond, spade, heart* in sequence.

R2: Alternate between black and red.

R3: Alternate between playing up and down at each court-card.

R4: After a King, play even, after a Queen, play odd.

R5: After a King, play up, after a Queen, play down.

These are just a few of practically infinitely many possible rules. The typical way the game is played is that each player develops several hypotheses and tries to place cards which simultaneously conform to *all* of these hypotheses. This usually leads to much more restricted sequences than the original rule would permit. For instance, some players may initially suspect *R1* to be true although the regulator has selected *R2*, and they have placed their cards accordingly. This will make *R1* very salient, and all players will tend to use this rule as long as they can, hoping that the others have to deviate and thereby generate new information.

non-rule. NORTH [1990, 48] uses the term ten times on one page without explaining it, and BRENNAN and BUCHANAN [1985] have written an entire book on rules while leaving the term undefined! The present approach, which I am going to illustrate in the following, relies on psychological regularities of categorization and concept formation.

The underlying theory is Gestalt Psychology (cf. e.g. Wolfgang KÖHLER [1980], Solomon ASCH [1987], Gisela KUBON-GILKE [1990]). Gestalt Psychology stresses that psychological organization tends to maximum clarity and articulation. This gives rise to rule formation. The German terms “Prägnanz” and “Gestalt” express this nicely. “Prägnanz” refers to clarity, simplicity, terseness, and articulation, and “Gestalt” refers to a pattern, rule or other form of integrated psychological organization. Using these terms, the tendency towards “Prägnanz” gives rise to psychological “Gestalten” such as rules. Unfortunately, the German “Prägnanz” is so close to the English “pregnancy”, which refers to something quite different, that I will refrain from using the term, although it is, apart from that, most appropriate and useful and an analogous English term is not available.

²² The game was invented by Robert ABBOTT [1973, 66–75].

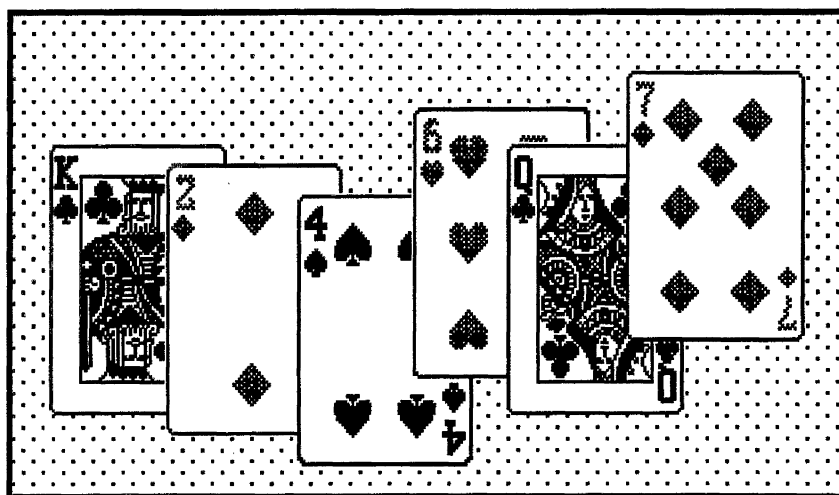


Figure 1

Further, if a certain hypothesis works very well for a long time, but fails to do so in one instance, a player will usually not discard it altogether, but will look for a better hypothesis that is also compatible with his information. As long as he has not found such a better alternative, he will stick to his own rule even if he knows that it is wrong in some cases. It is, after all, better than playing randomly.

3.4 The Formation of Rules in Social Interaction

The Eleusis game illustrates nicely how people learn rules. They form categories and look for regularities linking these categories. They can simply not learn by mere repetition, because each situation is new. (In the Eleusis game, the successful cards and card sequences cannot be played again. They lie on the table.) A player can only succeed by forming a rule that generalizes previous experience. Many rules of social interaction are of this sort.

Real life differs, however, in that there is usually no regulator who secretly develops a rule that must then be detected. Rather, people perceive or imagine some rules and behave accordingly. This itself creates regularity. The individuals assume regularity in social interaction, and this creates regularity in social interaction.

3.5 Rationality, Clarity, and Rule Formation

All this builds on certain basic psychological predispositions of man. There is simply no way to rationally decide which of the rules *R1* to *R5* is the correct

one. People have to build on ideas about psychological salience of certain patterns. Rational strategies must build on this psychological information.²³ Such a view is not incompatible with rationality, it merely says that something *more* than rationality is required to select among the vast number of extrapolations which can be conceived for any given observation.

Further, the social world is in continuous flux, and nothing repeats itself in an identical way. In such an environment, rule formation requires firstly forming classes of “similar” cases. Once similar events are connected to outcomes, this permits generalization and rule formation, but such a process must build on a classification of similar events to begin with. The Eleusis game, for example, builds on categories like “red” and “black” suits, “court-cards”, odd and even numbers, and so forth. Certain other categorizations could also be made – in fact, any element of the power set of the deck of cards could be used as a category. But many categorizations – like drawing a distinction between primes and other numbers and building rules on that distinction – appear psychologically “unnatural” and are thus usually not used.²⁴

3.6 Rigidity and Hysteresis

Rule learning builds on the selection of simple patterns. The restriction to simple patterns introduces rigidity, because simple patterns lie apart; they don't form a continuum. A square is simple, a circle is simple, but intermediate figures appear less simple. We perceive them typically as modifications of some “prototype” figures like circle or square.

A rule cannot always be simple, however. It may be that there is no simple rule available that fits certain sequences of events. But also in these cases, simplicity is important, since we try to conceive complicated rules as modifications or refinements of simple rules. In the “Eleusis” game, we will look first either only for colors or only for numbers. The simplest hypotheses will build only on these aspects. More elaborate hypotheses may be seen as combinations

²³ Game-theoretical approaches to rule formation, such as Andrew SCHOTTER's [1986], must tacitly presuppose that people perceive certain patterns rather than others. The point has been developed extensively by Thomas SCHELLING [1980] where the strategic use of “focal points” is expounded. With regard to strategic interaction he remarks: “Without full communication, one's ability to convey such a pattern of intentions is dependent [...] on the capacity of the other player to recognize the formula (Gestalt) of retaliation when he sees a sample of it.” (SCHELLING [1980, 107]). See also Friedrich HAYEK [1962] on the partially unconscious nature of rule formation according to Gestalt principles.

²⁴ On “naturalness” in categorization, see ROSCH et al. [1976]. Social categories follow the same pattern, see DAHLGREN [1985].

of elementary hypotheses. We may thus see any actual rule as an appropriate modification of a still simpler pattern.²⁵

An initial hypothesis in the Eleusis game cannot be adapted smoothly if it failed on one occasion. The previous rule is also not “disproved” since it fitted our observations on many earlier occasions, and we don’t have a better alternative. So we look for a refinement of our previous rule rather than for an entirely new pattern. This induces *hysteresis*: People will stick to the previous rule even if some evidence against it has accumulated. As a result, sequences of events in the past will influence to some extent the way in which we try to organize the currently available set of data, and the adoption of a new rule will be a somewhat discontinuous process.²⁶

3.7 Cognitive Stabilization of Custom

If we now think about the formation, stabilization, and transmission of custom as involving rule-learning, we may gain some grasp of stickiness and hysteresis.

Consider the erosion of tipping discussed in section 2.4 above. It has been argued that the typical individual selects his tip c slightly lower than the customary tip C in order to meet the conflicting ends of conforming with the custom and saving money. If the customary tip C is 10% for example, the individual will pay only 9.5%. The majority of individuals behaves in this manner and cheats slightly on the code. From the point of view of rule formation, a tip of $c = 9.5\%$ will be perceived as a tip of *approximately 10%* and will thus spawn erosion. In this way, the simplicity requirement may stabilize the custom.

More formally, we may think of possible customary levels of tipping as taken from the set of “prominent numbers”

²⁵ This hierarchical nature of mental constructs is a fairly general feature of psychological organization. In perception, memorization, and recall we usually relate an item to an adjacent clearest case, termed its “schema”, and refer to an item by noting the deviations from the schema. (ANDERSON [1980] provides a good overview. SCHLICHT [1979] relates these psychological regularities to “communicative stability” and presents an argument about the stickiness of structures for optimal data storage with respect to the amount of data. Cognate motivational and perceptual issues are discussed in KUBON-GILKE [1990, chap. 4]).

²⁶ Note that Jean PIAGET’s [1967] description of individual learning and Thomas KUHN’s [1970] view of scientific progress are formally akin to the process of rule-learning and involve similar rigidities.

Ronald HEINER [1983] has proposed that complexity may give rise to the adoption of simple and inflexible rules because the chance of acting wrongly is high under complex conditions and it is best to select modes of behavior which care only for the most important cases and neglect the rare events. Without evaluating this type of argument it should be clear that it must presuppose the – presumably psychological – concepts of “rule” and “simplicity” to begin with. Note that statistical inference itself is based on these notions and cannot deduce them (HARROD [1956, chap. vi] and JEFFREYS [1961, 4–5, 47]).

$$(6) \quad \mathcal{P} = \{1\%, 2\%, 5\%, 7.5\%, 10\%, 12.5\%, 15\%, 17.5\%, 20\%, \dots\}$$

and the custom forms according to the function

$$(7) \quad C = C(c) \varepsilon \mathcal{P}$$

which selects that element of \mathcal{P} which is closest to current practice.²⁷ If the desire to comply with the custom is sufficiently strong, the discontinuity introduced in this way may be sufficient to prevent level erosion.

A similar argument applies to scope stabilization. Categorization is not fully adaptive. Even social categories have to be “natural” categories in the sense that “artificial” categories cannot easily be implemented (DAHLGREN [1985]). It will for instance be nearly impossible to implement the category of a “laxi driver”, which would be a “taxi driver with the letter ‘l’ somewhere in his name” unless this category is supported by having relevance also in some other cases. (By implementation I mean here that the notion of a “laxi driver” is conceived as a primitive category from which the category of a “taxi driver” is derived as “a laxi driver with an arbitrary name.”)

Because categories are somewhat rigid, cheating on the code in borderline cases will not affect categorization, just as giving a tip of 9.5% will not erode but rather confirm the custom of giving a tip of 10%. This may prevent scope erosion.

In the same vein we may speculate that compliance erosion may be prevented because people tend either to view a custom as being largely observed, or rarely observed, but will discount intermediate unclear cases.²⁸

4. *Emanation and Dissolution of Custom*

4.1 *Responsibility and Wages*

The general argument expounded here – namely, that psychological mechanisms provide certain weak ratchets that may stabilize a custom – seems, however, to be incomplete. It does not explain how a custom like tipping may grow or spread. The Eleusis example also suggests, however, a means whereby a custom may emanate: If regularities emerge on the surface of the social

²⁷ ALBERS and ALBERS [1983] have introduced the concept of prominent numbers into game theory. They have demonstrated that the concept is behaviorally important. The hypothesis that the experimental solution to any given game is an element of the set of prominent numbers is statistically very robust. Note that this observation has no “rational” foundation at all. Note also that the set of prominent numbers differs among different number-systems. (Ten is prominent in the decimal system, sixteen is prominent in the hexadecimal system.) This is, however, not an argument for cultural relativism and a possible plasticity of focal points, see Schlicht [1990, 118–126].

²⁸ This refers to WULF’s [1922, 340] “Normalisierung” and “Pointierung” (levelling and sharpening) and to KELLEY’s [1973] “discounting principle.”

system, people perceive them as rules which link certain courses of action. These rules serve as standards for the normal course of events. They generate entitlements and preferences to behave accordingly. Unjustified deviations may arouse moralistic aggression. In this way, psychological organization of reality shapes reality.

As an example, Elliot JAQUES' [1976] sociological theory of wage formation may be re-interpreted in this manner (see SCHLICHT [1980]): Jaques argues that there exists a social norm that links wages to "responsibility." Responsibility is measured by the "time-span of discretion." This is the time during which the worker works on his own and cannot be supervised. Jaques demonstrates that social tensions result if this norm is violated. This induces the firms to comply with the norm and pay according to responsibility in order to avoid costs of conflict.

The weak point in this is, however, the postulate of the pay-responsibility link as an exogenous norm. The present considerations suggest a way in which such a norm may come about: There is a simple economic argument for paying more for more responsible work. Thus economic forces may be responsible for establishing the pay-responsibility link. People perceive this as a regularity, and it thus becomes a norm.

More responsible work can, by its very nature, be evaluated only after some time has elapsed. In order to be able to provide adequate incentives, the workers doing more responsible work must therefore stay with the firm for a sufficiently long time. This would render it possible to establish an adequate incentive system. An obvious way to reduce labor turnover is to pay higher wages for the more responsible workers. (These workers have, according to Jaques, time-spans of discretion up to several years.) Thus the firms themselves will be interested in paying according to responsibility. The pay-responsibility link appears as a social regularity and establishes itself as a custom.

4.2 Rigidity, Hysteresis, and Malleability Again

This kind of argument would, however, come down to the adaptive interpretation unless psychological elements are taken into account that may introduce rigidity and hysteresis.

It may be, for instance, that economic forces generate the pay-responsibility link as a broad regularity, but that specific scarcities in some segments of the labor market generate excessively high wages for work with low responsibility. This may lead to conflict rather than shape a new rule that accommodates the practice. The rule "pay either according to responsibility or to scarcity!" will not make sense as a rule because it seems not clear-cut enough, and hence arbitrary. This introduces (limited) rigidity and conflict.²⁹

²⁹ As Hans-Jürgen VOSGERAU [1993] argues, conflict may arise also because different individuals may have different histories, belong to different groups, and therefore develop different customs.

At the same time, it induces hysteresis and the possibility that custom reflects earlier states of the world rather than current problems. Without doubt, this is important. The custom of tipping varies considerably across similar countries like the United States and Germany. Sometimes it varies even within one country. In Denmark, you give a tip to the taxi driver in the countryside, but not in Copenhagen. This is hardly explicable in purely economic (synchronous) terms. We should, however, not be satisfied with filling this gap in our thinking by uttering the words “culture” and “history” and leave it at that without trying to elucidate in which way culture or history contributes to the formation or dissolution of custom. Given the importance of custom for economic performance, we should not side-step the issue.

Custom is, however, not rigid at all. What seems invariant is its reliance on rules and rule formation. In fact, custom changes all the time, but we seem not to observe it. This is not only so because “shortlived man has little better means of ascertaining whether custom is quietly changing, than the fly, born to-day and dead to-morrow, has of watching the growth of the plant on which it rests” but also because custom constitutes to such a large extent tacit knowledge, and we are not fully aware of it even if it changes rather quickly.³⁰

4.3 The Zipper

As an illustration, take a custom that seems to emerge in many countries under congested traffic conditions and dissolve under more severe traffic conditions. In Germany, it is known as the “zipper” or “zipper principle”.

Consider a priority lane under heavy traffic conditions and a ramp from which cars are trying to enter the highway, as in figure 2.

Under moderate congestion, drivers driving on the priority lane often temporarily waive their priority and permit one car to enter from the ramp to enter the priority lane. As a result, cars from the priority lane and cars from the ramp alternate. This is the “zipper”.

The custom is certainly beneficial in the sense that it permits traffic from the ramp under congested traffic conditions which would otherwise be blocked. If the custom is observed, everybody may be better off, since everybody must enter the priority lane from some ramp.

Further, it seems clear that the zipper principle relies on simplicity. Alternation between cars from the two lanes seems to be a simpler rule than other more complicated rules like “two cars from the priority lane – one car from the ramp.” Although these more complicated rules should be more efficient in some cases, we don’t observe them.³¹ We may understand this along the lines discussed above: The simple rule is more clear-cut than more complicated rules.

³⁰ The quotation is from MARSHALL [1961 a, 640]. On tacit knowledge, see POLANYI [1962].

³¹ This qualifies somewhat the position taken by Donald WITTMAN [1982, 89] that the rules that emerge provide *efficient* solutions to the relevant problems.

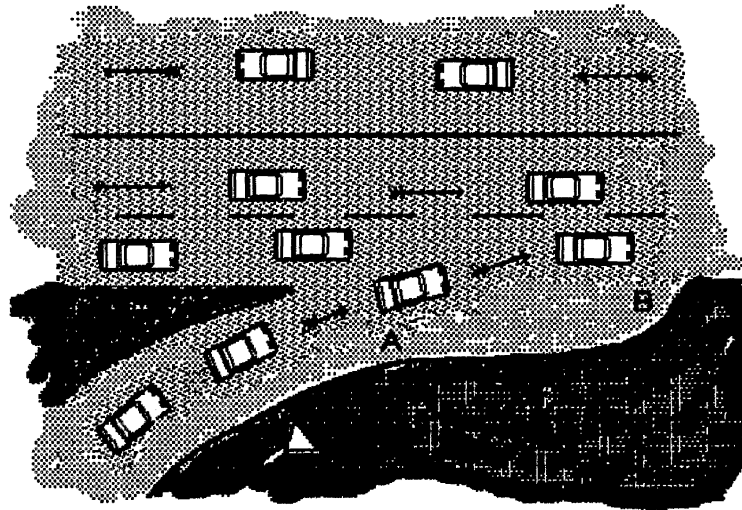


Figure 2

It is thus easier to cheat on complicated rules. This renders complicated rules more vulnerable to erosion. Further, complicated rules may be perceived as distortions of simpler rules, and this may establish the simpler rule even if it is less efficient. The simplicity requirement reduces the large set of conceivable rules to just one rule and introduces stickiness in this way.

The practice of “zipping” can, however, not be understood from narrowly selfish behavior. Rather it seems to be induced by a desire on the side of the individuals to establish a behavioral rule for themselves that justifies their actions. The drivers perceive the problem that traffic from the ramp would be blocked if the drivers on the priority lane insisted on their priority. They see therefore that insisting on priority is not a justifiable rule of behavior.³² The problem suggests the zipper principle as a simple solution. Behaving according to that principle is justifiable, and people have a desire to behave according to principles which serve to justify their actions. They have a preference for self-justification. This may induce a driver on the priority lane to adopt the zipper principle as his behavioral rule.

This behavior is strengthened by politeness. The drivers from the ramp will try to enter very early (at point *A* in figure 2) rather than at the end (point *B*) which is farther ahead (Incidentally, the German law mandates entering at *B*, but this is usually not observed). This suggests that the driver from the ramp tries to signal that he is not behaving selfishly, and the implicit threat is that he may pass to point *B* and try to find his way aggressively there if he is not permitted to enter at point *A* in a polite manner.³² This is consistent with his

³² Politeness is, by the way, a fairly universal human feature, see Roger BROWN [1990].

desire to be treated alike under similar conditions. He may even be inclined to develop moralistic aggression if he is *not* permitted to enter under such conditions. Once a rule is backed up by moralistic aggression of that sort, however, the formal rules of traffic are fairly meaningless: It is always in any driver's interest to yield to an aggressive driver. This will avoid a collision. Ultimately, the behavioral force of rules dictates the outcomes of these games of chicken.

It is interesting that "zipping" breaks down under conditions of severe congestion, but reappears if conditions improve. It would be nice to have a theory explaining that in general terms, but I cannot offer it. The example may have illustrated, however, the importance of cognitive elements here.

4.4 *Queuing*

Another related practice to be observed in many situations is queuing. The following account stresses the subtle balance between the rigidity of the rule and the flexibility of the practice:

A minor but simple example comes from the observation of a rudimentary group-formation, that of food-queues in time of war. Despite their lack of permanence queues follow certain rough principles of organization. The queue is a form of order, governed by the rule "first come, first served". To this rule the majority of the members adhere closely. Should a person attempt to cheat, say by arriving late and imperceptibly edging his way into the line, there will be an outcry, and the line as a whole will take part of those who protest. Yet, the rule is not applied mechanically; the exceptions are, in fact, instructive. A member of his family may relieve a person without arousing protest; also, when one has stood in the line a reasonable time he acquires the "right" to his place. If he must leave temporarily he may resume his place, and if newcomers protest the "senior" members will take his part. Old people and pregnant women may be allowed to go to the head of the line, even though there is some grumbling. It is also understood that one may purchase for one's family although one is not allowed to order for neighbors. It is true that this simple group formation is a function of prevailing practices and past experience. We cannot be certain that starving people in India would under similar circumstances form a queue instead of scrambling wildly. However, we cannot dispose of the problem by shifting it to the past. There was a time when people formed the first queues, when the considerations of which we speak did assert themselves. (ASCH [1987, 360])

4.5 *Reflections on Tipping*

It is difficult to generalize these thoughts. Consider tipping. Certainly, the practice of giving gratuities may evolve in a similar manner. People may feel that tipping may serve as a mechanism to guarantee quality and want to behave so as to maintain it. While leaving the price mechanism essentially unaffected, it provides the possibility of a discount in case of insufficient quality. In this, it can be viewed as a compensation package involving an incentive component, and this should be generally more efficient than simple payments without regard to quality.

It could be argued against this that such an argument should apply to a vast number of other transactions where quality is variable and cannot be contracted on, but tipping is not usual. Yet I am not so sure about this objection. Actually, tipping can serve an incentive function only if quality can be readily observed by the customer, but is so ill defined that no objective criterion is available on which pricing could be based. These conditions are often not met. The butcher for example has ample discretion on the quality of the meat he sells. Yet tipping could not work here as a quality enforcement mechanism because the quality of the meat cannot be judged in the shop, it can only be appreciated when it is consumed later on. In contrast, we can immediately judge the quality of the haircut, the service of the chambermaid, the help of the valet, or the alertness of the waiter, and we give a tip in these cases. This is also in broad conformity with the observation that you tip a generous policeman in some countries even if this is illegal.

Thus it seems that tipping relates to quality of the service. Yet this does not suffice. The services of a waitress in a cheap restaurant differ only marginally from the service offered by a McDonald's salesperson, but the one will expect a tip while the other doesn't. Thus classifications play a role.

It seems, however, that tipping does not primarily result from a concern of the individuals with *social* efficiency, but rather results from their *individual* craving. Tipping the policeman is not socially beneficial, but may be privately advantageous. It only happens sometimes that individual and social benefits coincide, as in queuing or zipping.

There is, however, another line of argument that would not rely as much on a social concern of the individual. It relates to equity theory (Stacy ADAMS [1963]) and to social exchange theory (Peter BLAU [1955], George HOMANS [1961]). These theories hold that humans have a desire to reciprocate actions of others such that the value of what they receive is balanced with what they give: There is a tendency to equalize inputs and outputs.³³

Consider now a service of variable and ill-defined quality. Quality q is a random variable. It can only be appreciated by the consumer. Its minimum is q_0 and its expectation is Q . The posted price for this service is p^* and the average price paid in the market in the past (the norm) is P . The customer is inclined to pay more than the average price if he obtains better than average quality since he behaves according to equity theory, and he tries to pay less than the average price if he obtains less than average quality. He is, however, forced to pay at least p^* . Thus the price paid by the customer is

³³ Note that the theory as such says not very much, since all kinds of entitlements may be perceived as inputs. As William AUSTIN and Elaine HATFIELD [1980, 80] put it, "under the right conditions, both exploiters and their victims are capable of convincing themselves that the most unbalanced of exchanges is in fact perfectly fair." It is only in conjunction with customary ways of categorization that the theory is rendered empirically important.

$$(8) \quad p = \max \{ p^* \cdot P + g \cdot (q - Q) \},$$

where g denotes the customer's generosity, i.e. the strength of his reaction to quality differences.

Since the expectation of q is Q , the expectation of $(P + g \cdot (q - Q))$ is just P . Thus the expectation of p will be above P if the posted price p^* is binding. This will drive up P until p^* ceases to be binding, and an average tip

$$(9) \quad P - p = g \cdot (Q - q_0)$$

has emerged.

If we add the requirement that the tip is conceived as taken from the set of prominent numbers, we come up with a stable tip.

4.6 Regularities and Rule Formation

The view adopted here is that regularities lead to rule formation. These rules establish what is considered the normal course of events. They generate entitlements and the motivational forces to behave according to those rules. In this way, custom is shaped.

It seems clear that rule perception must build on psychological propensities of man. The motivational force of custom must emanate from the same source. The regularities, however, that give rise to rule perception and ultimately to custom may come about from quite unrelated reasons. Economic forces may bring them into being in a rather direct way, as in the example about the pay-responsibility link (section 4.1), but the psychological disposition for shaping rules in order to solve a given problem may also lead to the formation of regularities, as in the queuing example (section 4.4). This suggests that we should keep the problems of emergence of regularities and that of formation and stabilization of custom theoretically apart.

5. Conclusion

I leave it at that. As I noted at the beginning, I see the main purpose of the present paper to pose questions rather than to offer solutions, and I hope I have done this.

I have argued that custom provides the bedrock of economic processes, which renders it economically important. I have stressed that custom itself is influenced by economic processes, which makes it impossible to fix it under a *ceteris paribus* clause. We have to face the problem of analyzing the interdependence between custom and economics. Finally, I have pointed out that customs, as well as other rules of social interaction, build on the bedrock of psychological processes. This implies that we have to take account of these too. I apologize

for the many theoretical inconveniences implied by what I have said, but unfortunately reality is structured in such a theoretically repellent way.

Zusammenfassung

Die allgemeinen Usancen des gesellschaftlichen Zusammenlebens sind von zentraler Bedeutung für die Ökonomie. Das Anliegen dieses Beitrages ist, die motivierende Kraft von Sitte und Gebrauch in die ökonomische Betrachtung einzubeziehen. Es geht dabei um die Bildung von Verhaltensdispositionen aus der Erfahrung und nicht, wie bei einigen vorliegenden Ansätzen, um Verhaltensweisen, die allein durch externe Belohnungen und Bestrafungen stabilisiert werden.

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