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# Gerold Behrens, Maria Neumaier\*

# Change Management of Socially Relevant Habits\*\*

It is sometimes necessary for the state to take intrusive measures into the life of its citizens in order to attain higher social goals. When circumstances require it, the force of law may be used (e.g. smoking prohibition, obligation to wear seat belts whilst driving), but on the whole it is more appropriate in a democracy to seek behavioral change by educational means (e.g. information about healthy nutrition). It has been shown that awareness of a problem can be brought about in this way, but that awareness alone does not lead to lasting behavioral change: between these two steps there is an inner barrier, and it is this that the present paper seeks to investigate.

The perspective chosen is that of the neural sciences, as this covers motor and other unconscious processes. Within this framework a concept for social change management will be developed and illustrated with practical examples.

Key words: political change management, voluntary action, behavioral change, motor processes

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# 1. Statement of problem

"Panta rhei" ("all things flow"). Of the many aphorisms derived from, or ascribed to, Heraclitus, this is probably the best known – not because it expresses a particularly profound insight into the nature of being, but because it is a singularly apposite formulation of an evident experiential fact that applies to living beings as it does to the cosmos and the material out of which it is formed.

In many contexts we can observe changes in human behavior, in the development of our children, for instance, or in the changing lifestyles of our friends. These processes unfold slowly and continuously, and we only advert to them consciously from time to time. Thus we gain the impression that all things do indeed flow. But as well as at the unconscious level, behavioral change can be introduced consciously and intentionally, either individually and internally – for example when a person resolves to give up smoking – or collectively and externally, as when a company sets its employees new goals and runs systematic training programs to implement the required behavioral adaptation. Politics also has an interest in eradicating harmful habits in the population (e.g. smoking, drunkenness), and conducts educational campaigns to this end.

Systematic behavioral change in business organizations is one element in a farreaching process of adaptation generally referred to as organizational change, or by the allied concept of change management. Much has been written on this subject (see By 2005), including books by Carnall (2007), Demers (2007), and Paton/McCalman (2008). Politically motivated changes for social reasons – e.g. improvements in healthy living that will alleviate the health insurance burden – also fall under the concept of systematic change management, but here there is little or no research literature other than in the area of political marketing (see e.g. O'Shaughnessy/Henneberg 2002; Wymer/Lees-Marshment 2006), which focuses principally on voter behavior and political campaigning.

The scope for introducing behavioral change at corporate and societal levels diverges widely. Whilst companies can influence employee behavior directly and impose effective controls, politicians' opportunities are far narrower. Laws and directives may provide a road-map and framework for change, and initiate a few broad incentives, but everyday behavior is only indirectly touched by such measures. A democracy must be careful not to intrude too offensively into the life and habits of its citizens, and will generally prefer to educate via information and argument in the mass media – e.g. with campaigns on healthy eating or ethnic equality – rather than by enacting legislation. Recent years have seen a move toward a more emotional presentation of arguments, but the overall result of such campaigns remains disappointing.

Educational campaigns and consciousness raising do sometimes succeed in changing attitudes and creating at least the intention to change behavior. But actual change needs more than a sound plan of action and a healthy will, as can be observed indirectly in the many unfulfilled New Year resolutions people make. There is a *barrier* between the *intention* to change a behavior – e.g. to do more sport – and *sustained implementation* of that intention in real terms.

The *theoretical aim* of this paper is to analyze this barrier and thereby indicate how to overcome it. A second step will be to find ways of stabilizing new behavior into habit. Drawing on the theory, the *practical aim* of our research is to develop, around such key social issues as health and the environment, a concept for real change management. This will go beyond currently available measures for raising the threshold of problem consciousness and creating the intention to change.

Section 2.1 will present some traditional approaches that are relevant to the issues under investigation. It will be shown, however, that they are unable to solve the problem of the behavioral barrier noted above. These traditional approaches have two major shortcomings:

They do not take account of unconscious processes, which play an important role in behavioral change inasmuch as every conscious change is based on judgments and decisions that lie largely outside the realm of consciousness.

They ignore the motor processes, which are also crucial to behavioral change, regarding them as a merely executive system.

A comprehensive analysis of behavioral change requires a *new theoretical platform* that will facilitate investigation of unconscious as well as conscious processes, and motor processes as well as cognitive-emotive ones. The *neurosciences* provide such a platform, enabling real processes of behavioral control to be studied in the brain's memory, and thus extending to unconscious and motor processes as well as conscious ones – a net gain in objectivity as well as breadth. Section 2.2 will, therefore, take a neuroscientific view of behavioral change.

Against the background of this theoretical analysis, section 3 will then outline a concept for change management on the societal level, asking how damaging habits can be enduringly changed via political change management.

## 2. Voluntary behavioral change: problems and solutions

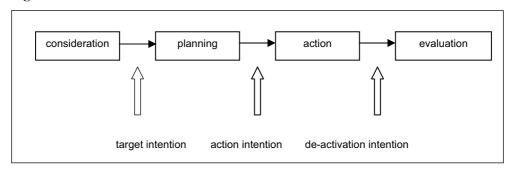
### 2.1 Traditional approaches to voluntary behavioral change

Voluntary action was widely investigated at the beginning of the 20th century, above all by Lewin and Ach, but their findings were long considered unscientific, until discussion reopened in the context of cognitive psychology's interest in the coordination and control of human action (see e.g. Kuhl 1985; Norman/Shallice 1986). Whilst these are fundamental issues of psychology, they are relatively remote from empirical reality. Abelson's script models (Abelson 1981) are both simpler and more empirical. They describe cognitive representations of common activities broken down into temporal and hierarchical units. A much-quoted instance is eating out, which is subdivided into distinct ritual phases (entering the restaurant, ordering the meal, eating, leaving), these being further subdivided in turn (see Schank/Abelson 1977). Scripts in the sense of stereotyped sequences of actions that define a well-known situation and have become associated with it impact perception and memory of real experience in terms of comparison of that experience with the script or type.

Action theory, on the other hand, is concerned not with cognitive representations but with real activity sequences, which it divides into discrete phases from planning to execution. Keller, Velicer & Prochaska's (Keller et al. 1999) transtheoretical model fo-

cused on behavioral change, but it was Heckhausen & Gollwitzer's earlier 'Rubicon' model (see Heckhausen et al. 1987) that received wider recognition. Four phases of action are distinguished here: consideration, planning, action, and evaluation, which bring distinct psychological requirements into play (see figure 1). There are clearly defined bridges between the phases, target intention linking consideration and planning, action intention linking planning and action, and de-activation intention linking action and evaluation.

Figure 1: The Rubicon model



In the last of these phases, evaluation, actions seen as inappropriate will be avoided and actions seen as appropriate will be repeated when the situation arises. In frequently repeated activities (e.g. eating, shopping, washing) such repetition is *habit-forming*. This is characterized by a shift from conscious to unconscious, indeed virtually mechanical, activity, which crucially lightens the load of conscious information-processing the brain has to bear. And the brain's capacity in this respect is severely limited: most human acts are initiated and controlled at the subconscious level. A common example is driving: although a great deal of information must be processed with great accuracy, this presents no difficulty to experienced drivers, because the processes are largely below the level of consciousness. No precise figures are available for the incidence of habitual behavior within the entire behavioral spectrum, but estimates are as high as 80% (see Wood et al. 2002).

Traditional models of voluntary behavioral change postulate the following sequence of processes in the performance of new actions:

- Consideration of desired goal and alternative behavioral means, followed by the
  decision for a particular behavior as secondary goal. Traditional approaches do
  not take account of the fact that the information processing on which these decisions are based lies largely outside the realm of consciousness.
- The will to attain this goal must be strong enough to rebuff other desires and pursue the goal in the face of obstacles.
- The achievement of the goal is more or less systematically planned in detail.
- The motor processes are fed with this information and set in motion by the will, which directs execution via those same processes.

Traditional approaches, therefore, assume that motor systems play a subordinate, merely executive role in behavioral change. However, observation of the actual sequence of psychological brain processes indicates that the *motor faculties* are an autonomous system alongside the cognitive and emotive, that they possess enormous information processing and storage/retrieval capacity, and that they interact with the brain's other systems. The relation of the three information processing systems to the level of consciousness varies: cognitive processes are to a great extent conscious, emotive processes to a far smaller extent, and motor processes scarcely at all – they only cross the threshold to consciousness at all when the movement they direct is actually performed.

The significance of the motor functions for behavioral change can be observed indirectly, for instance, in the fact that some behaviors cannot be explained simply in terms of cognitive and emotive information processing. Why are many people aware of environmental issues but behave as if they weren't? Why is the will to change often there, but not the change that is willed? Why do so many good resolutions fail after a few weak efforts? Somewhere along the line from intention to realization resistance emerges, feelings of dislike and motoric lethargy arise and justification is sought and found for reverting to old ways. Such resistance comes from the motor faculties, but its origin is not recognized, for the simple reason that motor processes lie outside the reach of consciousness.

From the evolutionary point of view such resistance between the intention to change behavior and execution (observable behavior) is beneficial because it concerns the transition from the internal, non-observable to the external, observable world. The moment the behavior becomes observable, signals are given to one's social environment about intended action. These may evoke danger, so certain inhibitions at this juncture are certainly functional. The Rubicon model postulates that the decisive step across the river – the moment Caesar burned his boats – lies between the phases of 'consideration' (before target intention) and 'planning' (after target intention). The greater barrier, however, may well lie between the internal world of planning and the 'real' external world of action.

If one changes the level of inquiry, indications of the significance of the motor faculties for behavioral change become more direct. At the *neural level* of *memory processes*, behavior coordination and control can be objectively observed in the brain (see Pinel 2006), and such observation is more comprehensive than at the psychological or social level, because it is able to access unconscious as well as conscious activities. Insights emerge into the interface between the cognitive, emotive and motor systems of information processing. These provide further indications of the significance of motor processes for behavioral change, and of the barriers hindering the transition from intention to deed. As this is a focal topic of the present paper, we will now proceed to consider in broad outline the neural process of voluntary behavioral change. Only those aspects will be modeled that are essential to an explanation of the genesis and implementation of behavioral change.

#### 2.2 Voluntary behavioral change: the neuroscientific view

The initiation of actions and their stabilization into habits involves two distinct parts of the brain: the cognitive-emotive area in which alternative actions are considered and choices made, and the motor area that coordinates and controls action. These two areas are complementary, neither being able on its own to perform all the above-mentioned functions, let alone to execute action. A major role in this context is played by a group of nerve cells connecting the two areas (substantia nigra): it is this region of the brain that is responsible for launching actions into reality. The various phases of the process and its functions will be described in the following three steps:

- a) Deciding and planning action (cognitive-emotive area)
- b) Coordinating movement and establishing automatisms (motor area)
- c) Launching actions (substantia nigra)
- a) Deciding and planning action (cognitive-emotive area)

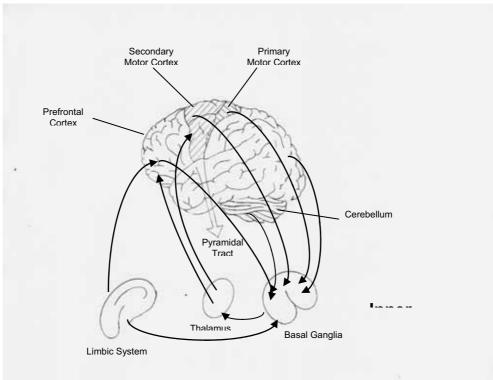
Habit changing generally begins with a more or less conscious decision – e.g. the resolution not to smoke again. In order to influence such decisions, one must know how they arise. Various sciences have investigated this field, and since antiquity it has generally been held that human decision and action should optimally rest on reason and understanding. Models of rational decision have been developed which in the ideal case provide the best possible solution. From this point of view emotions are regarded as disturbing the lucid flow of reason.

Opinion has changed, however. At first individual voices pointed to the discrepancy between rational decision theory and real decisions, and then from the 1950s onward the matter was systematically researched. It was shown that divergence from the rational ideal was not just reducible to avoidable disturbance. Herbert Simon demonstrated that human rationality was limited (see his concept of 'bounded rationality') and that rational decision theory was unable, in particular, to explain complex decisions. Kahneman and Tversky showed in numerous papers that decisions are influenced by perceptive distortions – e.g. most people fear loss more than they welcome gain, so they react with correspondingly greater violence to loss. More recent investigations (Kurz-Milcke/Gigerenzer 2007) have demonstrated that complex decisions call on specific heuristic processes (decision heuristics). Simple decision theory can, therefore, no longer be considered adequate as a description for real decision behavior.

Neuroscientific research has gained considerable insights into real decision behavior, where it is now realized that unconscious processes, alongside cognitive and emotive ones, play a decisive role. Decision behavior is coordinated in the prefrontal cortex (see figure 2), an area optimally suited to that task, as it receives signals from all parts of the brain, conveying information from inside as well as outside the system, and sends the processed results onward to the organs concerned with its implementation. The upper part of the prefrontal cortex contains the working memory, which processes data for decisions at the rational level. The lower part processes the corresponding emotional data in a largely unconscious manner, and has for this reason long been neglected in research.

The impact of the emotions on decision making is considerable. All information is first processed emotionally and stored along with its emotive-evaluative markers. This accounts for the development, in the course of life, of an emotive-experiential memory, a storehouse of emotionally marked experience. When decisions are called for, this experience is checked at an unconscious level for any response to the images, concepts and associations evoked by the matter in hand. If this response is negative, a warning signal is given. Damasio (1994) speaks of a somatic marker, and other concepts such as emotional intelligence, gut feeling, or intuition are also used in this context. Without reference to reason, a spontaneous sense of unease arises, which may become conscious, but may also remain unconscious, and this may be perceived as a definite warning: be careful, don't do it! Intuitive decisions are sometimes better than rational decisions, because they are based on a lifetime's experience that is accessed and evaluated holistically. Rational decisions, on the other hand, are restricted to a clearly defined area and are analytical. The prefrontal cortex brings reason and emotional intelligence together and thus provides optimal conditions for the multiple factors feeding into complex decision making.

Figure 2: Planning and execution of actions



For a theoretically based change management this means that the information on which a decision rests must be accessed if the decision process itself is to be affected. Rational decisions can be influenced by arguments and facts, and the emotional side

(somatic markers) by positive images, concepts and associations. Advertising can function as an appropriate instrument of influence because it can link action with positive emotional markers that increase the probability of its intuitive choice. But the impact of advertising should not be overestimated, as real experience is generally stronger.

After the decision for a specific behavior has been made, its execution is comprehensively planned in the prefrontal cortex, and the information immediately linked to action is passed on to the motor cortices – various areas of the cerebrum with differing functions. First, spatial factors are established; then the overall motor sequences are determined in the secondary motor cortex (figure 2); finally the motor sequences of individual muscles and muscle groups are allocated in the primary motor cortex (figure 2). All this, however, is preparatory and does not automatically trigger real action.

## b) Coordinating movement and establishing automatisms (motor area)

Any physical movement involves a very large number of muscles that must be coordinated and controlled both to ensure appropriate direction and energy and to rule out contradictory impulses and reactions. This is only possible if the brain can process large quantities of information, including memories of already practiced actions. This it does in the cerebellum and basal ganglia.

The *cerebellum* is by no means small, as its Latin diminutive would suggest. In fact it is extremely powerful and shares responsibility for the fine regulation of the muscles and the upright stance of the body; research has shown that it is also important for motor learning (see Thach 1996). For all their significance for physical movement, however, the functions played out in the cerebellum have little impact on behavioral change, and the cerebellum will consequently not feature in the following discussion.

The *basal ganglia*, on the other hand are of central importance for behavioral change and habit forming. They form a group of nuclei at the base of the cerebrum that appear to be responsible for the coordination and storage of movement information. Roth calls them 'Handlungsgedächtnis' (action memory):

"All our movements, especially new and unfamiliar ones, must be checked in the action memory. At first this is laborious, which explains why new movements are often clumsy and demand high concentration. The more we practice, however, the better they become and the less concentration they demand, until in the end we perform the actions as if in sleep." (Roth 2008: 170-171)

The cortex, basal ganglia and thalamus form a *motor loop* (figure 2) through which signals for new action must pass in order to achieve coordinated movement. However, the more frequently a movement is made and the motor loop activated, the less the sequence of actions continues to depend on conscious planning and coordination: an automatic response to specific internal or external stimuli develops. This need not be consciously perceived; and it is when this largely unconscious motion sequence has established itself that we can properly speak of *habitual behavior*. The sequence of steps from planned action to habit is itself in certain circumstances virtually automatic. For instance a person who eats a few cookies between mealtimes, and then repeats the action because it makes them feel good, will soon become a regular nibbler without even having to think about it any more.

The preceding observations have been confined to the phases of decision, planning and motor coordination – no outwardly observable action has yet occurred. Before it does so, a barrier must be overcome, nature's safety device preventing hasty acts. Only when the signal for action is given will observable action be triggered, and it is on this that we will now concentrate.

## c) Launching actions (substantia nigra)

Physical movement is launched in the primary motor cortex, which activates large nerve fiber bundles (pyramidal tract, figure 2) in the spinal cord that in turn activate and control the muscles performing the action. The question remains, however, where the command is given that launches the physical movement? Two areas that prepare this step have already been described, but not the instance that triggers the step itself:

Planning, evaluation and decision take place in the cognitive-emotive area, which is responsible for the systematic selection of alternatives on the basis of reason, emotion and experience. But that in itself is insufficient for physical performance: smooth-running movement needs the motor loop.

The motor loop (located in the cortex, basal ganglia and thalamus, see figure 2) coordinates and stores information about physical motion processes but cannot itself trigger physical action either.

The primary motor cortex still requires a specific signal in order to launch a process of physical motion. This signal is given by the *substantia nigra*, a compact group of nerve cells in the basal ganglia.

On the one hand the substantia nigra receives *trigger impulses* (positive impulses) from the areas concerned with deciding action and planning movement, above all the prefrontal cortex and the limbic system (see above). Intentions and plans are scanned here for their experiential markers and evaluated rationally as well as emotionally. If execution appears sensible and desirable, *will pressure* is invoked and the substantia nigra triggered.

On the other hand the substantia nigra receives *retarding impulses* (negative impulses) from the motor loop, especially when the movement to be executed is new and runs counter to the inbuilt inertia of the motor and other areas, as well as to the inherent emotional tendency of humans to prefer the old, familiar and safe.

If the positive impulses received by the substantia nigra outweigh the negative, it will trigger the relevant action. For the initial occurrence of action, strong pressure from the will is required, incorporating high motivation as well as rational arguments and positive emotional evaluation. This input invariably diminishes with time, however, and a project begun with enthusiasm will, as experience teaches, often fail for lack of endurance.

But with repetition the retarding impulses that work against the pressure of the will also diminish, thus facilitating execution and with it the maintenance of the new behavior. The more often an action is executed, the smaller will be the problems of coordination and uncertainty associated with it. Sustained practice makes for ease of execution. Retarding influences from negative evaluations from the motor area diminish, which facilitates establishment of the new behavior. If both the positive and the

negative factors diminish in parallel, the action will continue to be triggered and the new behavioral pattern will soon establish itself.

An example may illustrate this process. What happens, we may ask, when a New Year's resolution to take part in a fitness course is abandoned a few months later? The will power to begin the program was evidently there, but it soon lessens, motivation sinks, and the retarding impulses, for whatever reason, do not diminish so fast. There is little sense of success, uncertainty persists and with it a sense of unease. In these circumstances the negative impulses soon outweigh the positive and the triggering of action ceases. The fitness program has failed to become a habit.

Conversely we can see under what circumstances the resolution will be transformed into habitual behavior. The rational arguments for the program remain vitally present (I must get my weight down, not let my muscles atrophy etc.) and motivation does not fall overly low. There may be positive impulses from outside – because the program group is attractive, for instance. This keeps will power high, and resistance may diminish – for example if the exercises performed in the group are easily learned and enjoyable, like jogging, Nordic walking or gymnastics. Then positive impulses will exceed negative, the program will be continued and will soon become a habit.

The crucial factor is *sustained repetition*, and we have seen this to be of fundamental importance for habit formation in two ways:

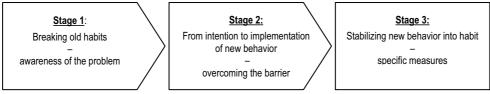
it reduces resistance in the motor faculties

it reduces the impact of consciousness (see section 2.1), effecting a transition to virtually unconscious, mechanical performance.

#### 3. Changing habits via political change management

Behavioral change in the social domain is a common political goal: public health is not just a matter of curing disease but also of preventing it by fostering a healthy lifestyle. And this also holds true for other areas of politics, where bad habits must be broken and replaced with good ones. Systematic change of this nature is the task of political change management. Yet the influence of the state, above all in a democracy whose citizens can develop their own individual wishes and talents, is limited. On the other hand the state does possess a range of instruments – legislation, institutions, large-scale funding etc. – that can be brought to bear on the behavioral patterns of its citizens. And it can call unrestrictedly on expert knowledge to back its plans.

Figure 3: Key stages in changing habitual behavior



The present paper is concerned with the scope of political change management in the improvement and guidance of habitual social behavior. The initial step is the breaking of old, undesired or unwanted habits, for example smoking or eating junk food. Here

one must first become aware of the problem, then the intention to change must arise, and this must be strong enough to overcome the barrier to implementation. Finally the new behavior must become firmly established and habitual. The neural processes involved have been described in section 2.2; on these depend the specific measures to be taken in (political) change management. Figure 3 depicts the three stages of this process.

# a) Breaking old habits

Habits are not controlled consciously and cannot therefore be addressed with rational arguments, so *attention* must first be drawn to them. This is itself no easy matter, given the increasingly intense competition to occupy a narrow and largely unchanging band of attention. Industry and politics both need this space, and for many artists public attention is a matter of economic survival. Attention is a scarce resource; it must be used skillfully. In such contexts as health or the environment, arguments must be interesting and emotionally embedded, with appropriate personalization and visualization.

Figure 4: Road safety campaign of the Federal German Ministry of Transport



For practical purposes, attracting attention to a problem is much the same as creating the awareness that there is a problem to be put right. This *problem-awareness* is difficult to achieve inasmuch as it involves a change in the perception of personal habits that up to that point were regarded as unproblematic. Powerful impulses are necessary, employing such techniques as contradiction, distortion, reversal of expectations and deviation from accepted norms (see Gaede 2002) – all of them factors concerned with the breaking of familiar, habitual patterns. An example is a road safety campaign run

recently on German highways (figure 4), featuring what at first sight seem to be happy couples and families, until one realizes that the billboards show a funeral card with black border and Christian cross. The visual paradox is driven home by a caption informing motorists that Jan and Lisa took their final curve too fast. So (in bold lettering): 'Take your foot off the gas pedal!' Here the appeal to the emotions takes precedence over the rational message that is also being conveyed.

# b) From intention to implementation of new behavior

The second phase concerns a twofold transition, first from awareness to intention, and then from intention to the implementation of change. This latter step entails overcoming the barrier discussed above, an obstacle that requires – as the theoretical reflections of section 2.2 have shown – not only the input of cognitive-emotive stimuli but also the cooperation of the brain's motor faculties; for resistance is lower and implementation easier if the new behavior follows familiar motor routines.

The cognitive-emotive area bundles impulses from various directions in order to generate the highest possible will pressure: the visual message of figure 4, for example, acts powerfully alongside emotional factors to stimulate the emotive-experiential memory as described in 2.2. above. New behavior must be associated with positive concepts and images, and further motivation to change can come from social pressure, when different behavior from one's own is seen to prevail among people whose success and attractiveness sets them up as role models. Orientation on and imitation of others is, after all, an important form of social learning (see Bandura 1971) which can also be used to lever change. This can begin with simple observation of others.

What is required is *integrated communication*, so that impulses are not dissipated but reinforce each other in their essential thrust (see e.g. Percy 1997; Esch 2006). Moreover, it is important that various senses be addressed with appropriate sounds and images, if possible also with a variety of scents, flavors and haptic surfaces. Conscious reception of an object or event is all the clearer and more vital the more intensely it appeals to the senses, and the more senses to which it appeals.

### c) Stabilizing new behavior into habit

Strong pressure from the will can suffice to start a new course of action, but this must then become habitual (figure 3, phase 3), a step that requires continuously high will pressure, which in turn can only be generated by cognitive-emotive stimuli (see 2.2). In this phase motor processes are decisive. In order to lower initial resistance they should be linked to familiar routines and positive experiences, and should not be overstrained. Once the new behavior has been introduced, its stabilization into a habit becomes the preeminent goal. This entails repetition within the motor loop (see 2.2).

This is a particularly difficult phase for political change management, because a democracy can only in exceptional circumstances concretely prescribe its citizens' behavior. As a rule individuals must take each step themselves. All the state can do is *stimulate* desirable habit-forming with relevant campaigns, create an *environment* that fosters it, and provide *incentives* that encourage it.

Stabilization of actions into habits can be *stimulated* emotively as well as by motivating examples that will optimally build up intrinsic pressure for behavioral change. A

psyche motivated from within will predictably have more staying power. In addition, role models are important. It has been demonstrated that the mere observation of activities stimulates (via mirror neurons) those motor areas of the brain that are activated by actual performance of the action in question (see Bauer 2006: 22, 92 f.).

*Incentives* can take the form of tax rebates and lower insurance premiums, but may include free gifts and awards of various kinds for attendance at programs and events promoting behavioral improvement. In Germany, for instance, reduced health insurance charges might be used to encourage people to attend weight-watcher and counseling sessions whose results would then monitored and success or failure recorded.

The creation of *environmental parameters* that foster the practice of new habits has proved equally effective. A case in point is the "European Network of Health Promoting Schools," a joint project of the World Health Organization and Council of Europe aiming to raise awareness of healthy living habits among school students – a relevant initiative despite some weaknesses of execution.

A current program in Germany, promoted by major media and health organizations (ZDF, *Bild am Sonntag*, Barmer Krankenkasse) and entitled "Deutschland bewegt sich!" ('Germany on the move!') organizes attractive sports events for public participation, complete with specially designed fitness tests and well produced information. In terms of the number of participants, for many of whom active sport in any form is probably quite new, the program has certainly been a success, but it falls short of a change management success, because the behavioral change introduced for the duration of the program is unlikely to be sustained. For all but the persistent, it represents no more than a temporary deviation from a sedentary norm.

This paper has demonstrated that creating the awareness of behavior as problematic is only an intermediate stage in change management. The impulse to change must be given, and an environment set up in which the new behavior can and will be repeated until it becomes habitual. Only then will old habits give way to new. What from the outside may appear to be a seamless behavioral transition is by no means automatic: real behavioral change is effected by the controlled influence of change management.

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