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SELF-REGULATED BEHAVIOUR: SOME THEORETICAL ISSUES

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Adolescents are often described as being aimless and
directionless, lacking in the ability to formulate clear goals,
and the motivation and persistence to convert intentions into
actions. However, the problem is perhaps not so much one of
lack of goals, as which goals are chosen in the first place.
What are the factors that prompt an individual to pursue one
particular goal over another?
The introductory paper in this symposium will present an overview
of self-regulated theory from a social cognitive perspective.
Within social cognitive theory, Karoly's five-stage model of
self-regulated behaviour focuses on goal-related behaviours -
goal selection, goal cognition, directional maintenance,
directional change or reprioritization, and goal termination.
The first phase in this model is the least researched, research
emphasis generally having been given to an examination of how
individuals bring their goals to fruition, However, there is an
increasing awareness of the importance of understanding just what
it is that influences us in the choice of goals. Although
research has identified several contextual and self-relevant
sources of influence (e.g., expectancies in relation to peers or
some other reference group; fortuitous circumstances; the
maintenance of self-definition or self-concept), there is as yet
no clear theoretical or empirical model that provides an adequate
understanding and explanation of the factors that influence our
choice of goals.
The two succeeding papers in this symposium present findings from
current research that address the issue of goal definition.
Reputation enhancement is shown to be a factor in the goal-
selection process of adolescents. In relation to career choices,
knowledge of what an individual does not want to do is as

important as knowing what it is that the individual does want to do; the accessibility of information is also an important factor in career goals.

Introduction
Although the origins of theory related to the self-regulation of behaviour are often traced to the development of cybernetic or control theory in the 1940's, the concept of self-control or self-regulation has been with us for hundreds of years. "Men are disturbed not by things but by the views which they take of them" says the Stoic philosopher Epictetus (quoted in Ellis, 1973). The distinguishing characteristics of the self-regulation construct are not always clearly identifiable, and

interpretations vary according to the particular theoretical position adopted. Perhaps an initial capturing of meaning can be gained by considering some of the terms that are often used, at least if not completely interchangeably, then in circumstances that appear to have something in common. The following list of terms is almost certainly not exhaustive, but could be gained fairly easily by most readers attempting an initial investigation of the self-regulation literature:

self-regulation, self-control, self-direction, voluntary action, self-discipline, intentional action, volition, agency, self-determination, purposiveness, self-organisation, autonomy, independence, self-management, self-sufficiency, self-change, willpower, self-guidance.

Karoly (1982) identifies "commitment, intentionality, and the behavioural enactment of internalised goals" as the key elements of the construct. He defines self-regulation as "those processes, internal and/or transactional, that enable an individual to guide his/her goal directed activities over time and across changing circumstances (contexts)." Other features often associated with the concept are the delay of reinforcement (Logue, 1988); the acceptance of increased costs (Eisenberger, 1992); acceptance of a small, early punishment over a large, late punishment (Rachlin, 1989); the relative absence of external constraints (Tomarken & Kirschenbaum, 1982); and awareness of socially approved behaviours (Kopp, 1982). This latter aspect, however, does not fit with the notion that self-regulated behaviour is inextricably linked to the goals that individuals set for themselves. Not all goals that people set and assiduously pursue are socially desirable, as has been demonstrated in the work of Carroll (1994) on goal setting and juvenile delinquency.
The concept of self-regulation presented in this paper is one that belongs clearly within the framework of social cognitive

theory (e.g., Bandura, 1977, 1986, 1989; Schunk, 1989, 1991).
There are, however, a multiplicity of interpretations of the
construct, and differences in philosophical orientations are
clearly evident in the literature. Most obvious of these
differences is the relative importance accorded to the influence
of external or environmental influences on an individual's
capacity to be behaviourally self-regulating. Before outlining
the major principles of a social cognitive perspective on self-
regulation, it is helpful, therefore, to provide a brief overview
of the emergence of research which has focused on the regulation
of behaviour.

Control by others

With the advent of psychology as a science, there was a concern
to formalise and test the ideas that had served as an intuitive
base for the understanding of human behaviour. Early theories of
learning and behaviour revolved around the idea of "other"
regulation. Individuals did not so much choose to follow a
course of action, but rather they were guided (consciously or
unconsciously, willingly or unwillingly) down a particular path
by stimuli that were designed by others to elicit desired
responses. Behaviour was shaped by others, this especially being
the case where behavioural dysfunction was diagnosed. The notion
of other regulation assumed a different interpretation through
the works of Vygotsky and Feuerstein who emphasised the role of
adults in influencing the cognitive development of children.
From a Vygotskian perspective, it was argued that other-
regulation is directly, or indirectly, the very source of

internal self-regulation (Wertsch & Stone, 1991). It is through
the repeated use of behaviours that have been initially modelled
by others (adults), and the internalisation of language scripts
(self-talk) that children adopt particular sets of behaviours.
Cognitive Behaviour Modification (e.g., Meichenbaum, 1977;
Meichenbaum & Goodman, 1971), Cognitive Strategy Training (e.g.,
Brown, 1987), and Cognitive Self-Instruction (Manning, 1991) are
forms of "other" regulation procedures which rely in the first
instance on guidance, direction, and support from others, with
the ultimate aim of transferring regulation from an external
source to the individual. Typically, the procedure begins with
an adult modeling the required behaviour while at the same time
engaging in instructive self-talk. The child then imitates the
behaviour under the guidance of the adult, repeating aloud the
instructions. The self-talk of the child gradually moves from
the overt, out-loud form, through to a whisper, and finally the
task is performed with the guidance of private, inner speech.

Cybernetics and self-regulation

Cybernetic or control theory, as a general approach to the
understanding of self-regulating systems, is often used to
provide a perspective on human behaviour. The principles of

cybernetics have evolved over many years, but the systematic application of cybernetic theory to self-regulation amongst people is usually linked with the publication of Wiener's (1948) text, Cybernetics: Control and communication in the animal and the machine. The cybernetic model is one in which a feedback loop is the chief mechanism of control, for both machine and person (or other animal). The cycle of action in this loop begins with a standard or reference value against which the final outcome will be measured. Subsequent to a behaviour or action being performed, a sensor (comparator) notes any deviation from the standard initially set. Any discrepancy between the desired and actual behaviour will lead to the activation of a new behaviour designed to minimise deviations from the standard of comparison.

 Although there is a theoretical analogy with the mechanistic elements of cybernetics, and despite the advocacy of some (e.g., Carver & Scheier, 1982, 1990), when applied to the self-regulation of human behaviour, the analogy is found wanting on a number of counts (Watson and Tharp, 1992).

1 The metaphor portraying human behaviour in terms of the operations of a machine is an intriguing one. Given that humans are the creators of machines, it is surprising that generally we have not chosen to describe machines in terms of human behaviour.

   First, human behaviour is vastly more complex than any mechanical system; the available choices for human action are more numerous than the alternatives available to a machine. Second, despite the multiplicity of available alternatives for action, the correct one may not be available to a human because it may not have been learned. Third, it is simply not possible to be self-regulated in all areas of human behaviour. Contextual or environmental factors are sometimes such that it is impossible to exhibit self-regulated behaviour, although in these circumstances, there is a strong argument that individuals can at least regulate their emotional responses to their inability to control the environment and, hence, their own behaviour (Swann et al., 1987; Zajonc, 1984).

Watson and Tharp (1993) claim that a more helpful comparison in the quest for understanding how we can regulate our own behaviour is the comparison with how our behaviour is sometimes regulated by others. The regulation of behaviour, whether by self or

others, they say, occurs by way of similar procedures - "language regulation, consequences, antecedents, respondent behaviour and conditioning, and modeling." In their model of self-regulation, all behaviour is seen to pass through the sequence of: control by others; control by self; and automatisation. When contextual changes or changes in our goals interrupt this smooth flow, the behaviour can be retrieved from the automatic state and once

again be brought under conscious control or self-regulation.
Watson and Tharp refer to the skills used in this sequence of
events as "learned resourcefulness".

Social Cognitive Theory and Self-Regulation

Beginning in the early 1960's, researchers began to interpret the
process of self-control as a socialisation process (Bandura &
Walters, 1963) rather than as a feat of willpower or as a process
incorporating behaviourist, stimulus-response techniques. Self-
control was viewed as the product of socialisation processes
aimed at the development of moral standards of conduct. This
theory was later extended to include a goal-related aspect. A
person's goals and expectations were seen to provide the
motivational stimulus to the self-control of behaviour that is
directed at effecting changes in self or situation.
Self-control research, within the framework of social cognition,
initially focused on gaining an understanding of several key
aspects of the process: self-control failure (Walters & Denkow,
1963); the development of standards, and the use of self-rewards
(Bandura & Kupers, 1964); the delay of gratification (Bandura &
Mischel, 1965); and generalisation of patterns of self-control
from one situation to another (Bandura, 1969). As well as
studying the processes of self-regulation, researchers also
investigated a range of modeling techniques designed to assist
students to become self-regulators in a variety of situations.
Bandura's early self-regulation research and development of
theory emphasised the importance of modeling and vicarious
experience (e.g., Bandura, 1971; Bandura et al., 1969).
Social cognitive theory (Bandura, 1977, 1986) proposes a theory
of "triadic reciprocal determinism" in which personal,
environmental and behavioural factors interact in such a way as
to allow opportunity for the exercise of control over one's own
destiny, while at the same time setting limits to self-direction.
Figure 1 shows a schematic representation of the relations
between the causal factors in triadic reciprocal determinism.

Figure 1. Causal factors in self-regulation (from Zimmerman,
1990)

In this model, reciprocality does not imply that personal,
environmental and behavioural influences are either equal in
their strength of influence or simultaneous in their occurrence.
It is this second feature in particular that makes it possible to
investigate various of the subsystems of the entire interactive
process. To attempt to understand and explain the entire process
at any one time is an unimaginable and unrealistic task, but
"clarifying how the various subsystems function interactively
advances understanding of how the superordinate system operates"
(Bandura, 1986, p.25).

Self-regulation is recognised to be distinct from "intelligence". Nevertheless, certain of the self-regulatory sub-processes or strategies involve behaviours that are related to several basic capabilities such as the capacity to use symbols, the capacity to learn vicariously (Bandura, 1986), delayed gratification

(Patterson & Mischel, 1975), emotional intelligence (Salovey & Mayer, 1990), the ability to visualise (Cross & Markus, 1990) and attention and memory.

The self-system

The role of the self-system in the self-regulation of behaviour has been the subject of considerable theory building and research (Bandura, 1986; 1989; Carver & Scheier, 1982; 1990; Cross & Markus, 1990; Harter, 1986; Kanfer, 1970). Conceptualisations of the self (either current or possible) help to determine what will be chosen as the object of the will (Raynor & McFarlin, 1986), and how attention can be focused and the necessary behaviour sustained in order to accomplish the desired goal (Cross & Markus, 1990; Inglehart et al., 1988; Kuhl, 1986). Kuhl (1986) suggests that intentions and commitments can be protected from competing possibilities by engaging in certain processes, chief amongst which are emotional control and environmental control. However, Markus and Cross contend that it is not the process itself that shields one's intentions and commitments; the process is the consequence of "claiming of a particular behavioural domain as self-relevant or self-identifying".

Bandura (e.g., Bandura, 1977; 1982; Bandura & Schunk, 1981; Bandura & Cervone, 1983) has emphasised the role of self-efficacy in the self-regulation process; how people judge their capabilities and how their self-perceptions of efficacy will affect their motivation and behaviour. The mere possession of skills, and the motivation to use them, will not ensure their use in all contexts. What people believe about their capabilities is as powerful a tool in the self-regulation process as actual possession of the skills. In social cognitive theory, perceived self-efficacy evolves from feedback conveyed vicariously, through the evaluations of others, and through direct experience. Information about self that is received via feedback is compared to previously accumulated information about self that has been stored in memory. If the feedback concurs with the information in memory, it is accepted as an accurate description of self; if not, it is rejected (Swann et al., 1987; Tice, 1991). Beliefs about one's capabilities do not always correlate highly with one's actual level of skill. Even when experience contradicts strongly held beliefs about one's capabilities, these incorrect self-perceptions may persist. Counter-evidence is simply discounted.

The relationship between the various components of the self-regulation process, in particular that between goal systems,

self-efficacy and self-evaluative mechanisms has been clearly demonstrated (e.g. Bandura, 1986; Cervone & Peake, 1986; Mento, Steel, & Karren, 1987. The findings from research clearly support the idea that goal systems (particularly those involving proximal, rather than distal goals) are supported and strengthened by self-evaluative and self-efficacy procedures that are activated by cognitive comparisons. For instance, in a study of career decision-making and career development, Lent and Hackett (1987) demonstrated how selection processes can significantly affect our life paths as the result of our self-efficacy beliefs.

 Contexts for the study of self-regulation

Principles of self-regulation are applied in at least two quite different contexts. In one, the focus is on deliberate modification of dysfunctional or deviant behaviour and is allied closely to the tradition of behaviour modification. Usually, this form of self-regulation is instigated by an outsider and in the initial stages is almost completely dependent on the actions of the outsider. The attempt to reduce off-task behaviour in a

classroom is an example of this type of procedure, which, in the early stages at least, uses principles of modeling and self-talk and is heavily dependent on reinforcement of the desired behaviour each time it occurs. Although proponents of the use of behaviour modification techniques to develop self-regulated behaviour claim that the use of external rewards is gradually phased out as students develop the ability to use intrinsic reinforcers (e.g., personal satisfaction with a job well done), there is evidence to show that extrinsic rewards have a detrimental effect on intrinsic motivation (Getsie, Langer, & Glass, 1985; Rummel & Feinberg, 1988). Deci's Cognitive Evaluation Theory has been used to explain this phenomenon. This theory proposes that when intrinsically motivated individuals work under conditions of extrinsic rewards they are led to a process of cognitive reevaluation of the activity from one which is intrinsically motivated to one which is motivated by the anticipation of reward. Rewards do not convey the same information to individuals. Dependent on the information conveyed (competence or incompetence), one's feelings about personal competence and self-determination is affected and thereby further increases or decreases one's intrinsic motivation (Rummel & Feinberg, 1988).

In recent years, with a growing acknowledgment of the effects of behavioural dysregulation, attention has focused on self-regulatory behaviour and risk-taking, particularly in the areas of substance abuse, violence, and sexual promiscuity. Why is it, ask Lipsitt and Mitnick (1991), that people will continue to engage in behaviours that put them at risk of exposure to HIV infection? Or inject illicit drugs, knowing full-well the

possible health and legal consequences? Martin (1992) refers to such behaviours as "choosing to go in harm's way" for unhealthy reasons, with unhealthy consequences that are not justified by what might be called common-sense values. Such risk taking is a complicated process that involves one's state of knowledge, self-image, peers, models, mentors, and how one thinks all these things fit together (Bateson, 1992). The "dare" in risk-taking behaviour has been explained in terms of a perceived higher stake or incentive (Lipsitt and Mitnick, 1991), and on this basis, the current emphasis on programs that aim to educate people about the risks they take in engaging in certain behaviours would seem doomed to failure. Bateson argues that change programs have relied far too heavily on avoiding risk to self. Other kinds of concerns, such as concern for others, must be linked with concern for preventing risk to self in order to provide stronger and more positive motivations for change.

Another major context for the study of self-regulated behaviour is that of academic learning. A social cognitive perspective on self-regulated learning perceives students to be self-regulated learners to the extent that they are "metacognitively, motivationally and behaviorally active participants in their own learning processes" (Zimmerman, 1986). This theory proposes that self-regulated learning involves three key elements: use of self-regulated learning strategies, self-efficacy perceptions of performance skill, and commitment to academic goals (Zimmerman, 1990). Self-regulated learning strategies involve agency, purpose and instrumentality self-perceptions by a learner and are aimed at acquiring information and skill. In keeping with social cognitive theory in general, self-regulated learning is the result of triadic reciprocal interaction between the three influence processes: personal, behavioural, and environmental (Bandura, 1986; Zimmerman, 1989). Social cognitive views of self-regulated learning identify at least three prerequisites

before a student can learn in a self-regulated way: motivation to do so (for example, as evidenced by goal-setting); the possession of skills (such as summarising, memorising) necessary for the processing of content ; and the ability to regulate the use of processing skills through self-monitoring.

Processes of self-regulation

Within social cognitive theory there are three subprocesses of the self-regulatory process that are crucial if the goals that an individual sets are to be attained - self-observation/monitoring, self-judgement, and self-reaction. Self-observation is used to assess such dimensions as quality, rate, quantity, and originality of work or effort. On the basis of information gained from self-observation, individuals can then decide whether they need to change some aspect/s of their behaviours. The process of self-observation is improved with systematic self-

recording. It is easy to fall into the trap of self-delusion about one's behaviours unless regular and accurate observations are made, and compared with previous observations. Self-regulation of one's behaviour requires more than its observation, however. There is a need also to engage in some form of assessment of that behaviour in relation to the goals that have been set.

 Self-judgement subprocesses compare present performance level with one's goal, and are affected by the nature of the standard applied (fixed or normative), the value one places on the goal, the properties of the goal itself (specificity, level of difficulty, proximity), and attributions one makes for performance (ability, effort, task difficulty, luck). Standards may or may not change depending on such factors as peer or social influence, or the type of behaviour aimed at (e.g., for skill development, standards increase as one becomes more competent). But it is important to note that knowledge of one's performance alone does not ensure subsequent behavioural effects (Kazdin, 1974).

Our affective response or self-reaction to our self-judgement of performance acts as a motivator for future performance. When the response is positive, feelings of self-efficacy are likely to increase, thereby facilitating future engagement in similar, or even more difficult tasks. If self-efficacy is already high, and the response is negative, this is likely to be interpreted as failure to exert sufficient effort, thus setting up a challenge to improve performance through increased persistence and effort. For low self-efficacy individuals, however, self-judgement of performance as inadequate is likely to act as confirmation of lack of ability, thereby discouraging further effort. As well as self-reactions creating internal motivation (negative or positive) for continued task engagement, they may also provide justification for the provision of tangible motivators. Research has clearly demonstrated the potency of self-rewards: people who reward their own attainments usually achieve more than those who don't (Bellack, 1976; Wall, 1982); one of the factors that differentiates between successful and unsuccessful self-regulators is the effective use of self-incentives (Perri & Richards, 1977; Rozensky & Bellack, 1974); self-incentives are at least as effective, perhaps more so, than external incentives although one's preference for either personal or external control will influence the strength of the success of the self-incentive (Rummel & Feinberg, 1988).

Apart from self-incentives, there are other reactions to one's own performance that may exert considerable influence on subsequent courses of action. For example, self-criticism, self-punishment, observation of the successes of esteemed others, and

contextual/environmental supports may serve equally as self-

handicaps or as energisers for continued effort.

   Goals

An individual's goals, and all the behaviours that are associated
with the selection, maintenance, and achievement of these goals,
are central to a social cognitive interpretation of self-
regulatory processes. Karoly (1993) proposed that self-
regulation encompasses "five interrelated and iterative component
phases" during which goals are selected, interpreted, acted upon,
and achieved. The five phases are: 1) goal selection, 2) goal
cognition, 3) directional maintenance, 4) directional change or
reprioritisation, and 5) goal termination. When compared with
the emphasis given to the factors that either compel a person to
pursue a goal once chosen, or that facilitate the process of
staying on track, there has been a distinct lack of research
related to the factors influencing choice of goals. The study of
goals as dependent variables, Karoly maintains, is infrequent.
Two major sources of influence on the goal selection process have
been identified - self-relevant (e.g., Bandura, 1977; Cantor &
Fleeson, 1991; Lent & Hackett, 1987; Markus & Wurf, 1987) and
contextual (e.g., Bandura, 1989; Cantor & Fleeson, 1991).
Markus and Wurf (1987) suggest that there are at least three
general self-relevant factors involved, either singly or in
combination, in the process of goal determination - expectations,
affective factors, and self-conception. Expectations relate
largely to efficacy expectations or outcome expectations and
exert powerful influences on the types of goals chosen and the
willingness to persist in the face of difficulty. Affective
factors include needs, motives, and values and are viewed by
Markus and Wurf as forming some sort of hierarchy of specificity
with a general, innate need providing an individual with a more
specific and learned motive to pursue a particular course of
action. Values are more particular again, and are used by an
individual to consciously direct the form the motivated behaviour
will take. The particular self-conception that is desired by an
individual is based on a broad life-goal which may be context
specific (e.g., culturally-prescribed or age-related) and which
may direct behaviour in a number of seemingly unrelated areas
(Cantor & Fleeson, 1991).
A model highlighting goal-setting and self-efficacy within
academic contexts is that developed by Schunk (1990). This model
proposes that self-efficacy for goal attainment is influenced by
abilities, prior experiences, attitudes toward learning,
instruction, and the social context. As students work on tasks,
they observe their performances, evaluate goal progress, and
continue their work or change their task approach. Self-
evaluation of goal progress as satisfactory enhances feelings of
efficacy; goal attainment leads students to set new, challenging
goals.
The influence of contextual factors on our choice of goals has

received less attention. In particular, what Bandura (1986) calls the "fortuitous determinants of life paths" are often overlooked in discussions of self-regulated behaviour within the context of social cognitive theory. However, Bandura's model of behavioural causality focuses considerable attention on the prominent role that fortuitous encounters often have in shaping the course of lives, as illustrated in a number of quite remarkable examples of individuals whose life paths have been turned around because of a chance encounter. For example, Bandura recounts the experience of Nobel prize winner Herbert Brown who

exotic area of boron hydrides. As a baccalaureate gift, his girlfriend presented him with a copy of the book, The Hydrides of Boron and Silicon, which launched his interest in the subject. This was during the Depression when money was scarce. She happened to select this particular chemistry book undesignedly, because it was the least expensive one ($2.06) available in the university bookstore. Had his girlfriend been a bit more affluent, Brown's research career would in all likelihood have taken a different route (p.33).

Although such fortuitous events appear to be totally outside of the control of the individual involved, "the power of most fortuitous influences lies not in the properties of the events themselves but in the interactive processes they initiate" (Bandura, 1986, p.23). It is the reciprocal action of personal and situational factors that is often more important in deciding the outcome of chance encounters. Bandura identifies a number of determinants, both personal and contextual, of the impact of chance encounters. Personal factors such as an individual's entry skills, values, and emotional ties when combined with such contextual factors as constraints of time and resources, and the rewards offered by the fortuitously encountered group (or other individual or situation) will determine the subsequent behaviour of the individual.

Cantor and Fleeson (1991) provide a perspective on the goal selection process which conceives of personal and contextual factors as providing sources of information available in defining a goal rather than as forces "pushing and pulling the person". The goal selection or definitional process involves an intricate interweaving of decisions about what to work on, how and when to pursue it, and whether to persist in these efforts.

The what for the novice usually derives from normative task concerns. At this stage, there is considerable social input from such sources as the family, the school, and the media, and normative tasks are often socio-culturally prescribed and age graded. In the initial stages of goal definition, individuals

are relatively open to social agendas, adopting a receptive
stance as they enter each new situation. As individuals become
more expert, they focus more narrowly, and move towards greater
independence from normative task concerns. They pick and choose
more carefully and refine their task definition to a point where
it no longer represents the original normative task.
The how of task definition is also initially under the strong
influence of normative processes. The context within which
individuals operate will provide information about when, where,
and in what ways a task might be performed. The contextual
influences of cultural norms on the definition of what tasks to
work on are relatively abstract compared with the more concrete
nature of situational and behavioural rules about how one may
perform a task. For instance, it is appropriate to spend long
hours in academic study when the goal is to get high grades, but
it is not considered appropriate to cheat in order to attain such
a goal. There are three aspects to the how of working on life
tasks - when, where, and in what ways. The frequency and spacing
of goal directed efforts are regulated in part by opportunity or
situational constraints. Again, normative patterns of time usage
are adhered to more strictly by the novice than by the expert.
Experts become adept at time management to the point where they
are able to manipulate normative expectations to suit their own
purposes without violating the broad rules relating to the

temporal aspects of task performance. For instance, the
normative pattern of working during weekdays and relaxing at
weekends can still be followed by the workaholic, but individuals
can make adjustments by working twice as hard during the week and
squeezing in a little work at the weekend while still attending
to the more relaxed social and relationship commitments expected
of them at the weekend. How much time individuals invest in the
pursuit of a task represents a measure of commitment to that
task.
The importance of one's values to the goal definition process is
recognised by Karoly and Kanfer (1982) in their discussion of
programs aimed at the development of self-management skills in
deviant populations. "For individuals who are strongly committed
to incentives associated with behavior patterns that are "high
risk" (e.g., the adventuresomeness that often accompanies drug
exploration, criminal activities and gambling or the relief from
discomfort that sometimes accompanies smoking, drinking, truancy,
etc.), there is no reason to assume that the mere teaching of
specific strategies (self-instruction, self-administered
relaxation and the like) will have any lasting impact. For those
persons committed to "maladaptive" values, the process of therapy
becomes decidedly less collaborative or "negotiable" than is
characteristic of the self-management model" (Karoly & Kanfer,
1982, pp. 23-24). When individuals are merely being taught how

to behave in accordance with standards that are foreign to them, they will not be likely to display the commitment to goals that is an essential feature of goal fulfilment. A process of values clarification, therefore, becomes an essential part of any program aimed at changing maladaptive behaviours. After people have acquired certain values and standards of behaviour, they are more likely to select friends and activities that reflect similar value systems, thereby strengthening the possibility of choosing more socially appropriate goals.

Conclusion

 The study of self-regulation is one of many endeavours to explain human behaviour. How-self-regulation is characterised depends on which point of a continuum it is placed. At one end, individuals are viewed as being the sole arbiters of their actions, and hence the determiners of their own destinies. This is in contrast to the view that contextual or environmental factors control human action to such an extent that any apparent attempts by individuals to control their environments are interpreted as responses to those influences rather than human initiation of action. Somewhere between these two extreme beliefs about human behaviour are a range of theories which incorporate elements of both environmental and personal determinants of behaviour. But such interactionist theories vary also in the view taken of the relationship between self and the environment. Many portray behaviour as the product of personal and situational influences. Social cognitive theory, however, proposes that our behaviour serves as a source of information in the process of self-regulation. When we observe our behaviour, and take note of the consequences of our actions, we are potentially better placed to either maintain our direction, or to redefine our goals. In the initial process of goal definition, we will be guided by self-relevant factors such as self-efficacy beliefs and expectations, and by contextual factors of which not all will be clearly visible. Fortuitous opportunities or events, particularly if their significance is recognised, may well create new directions and possibilities for action.

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