

**SELF-CONTROL. SENSE OF CONTROL. CONTROL-ENHANCING INTERVENTIONS:
Critical Theoretical, Empirical, and Clinical Questions Remain**

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In Judith Rodin's thoughtful article on a "sense of control" (19 September) there are three substantive areas of human control that require more clarification: a) the efficacy of human "control-enhancing interventions" for impairments of control; b) refinement and operationalization of constructs; and c) core philosophical assumptions and value issues.

CONTROL ENHANCING INTERVENTIONS AND SELF-CONTROL STRATEGIES

Rodin indicates that "lack of control" can be an independent variable causing undesirable physiological changes, and that for "control-enhancing interventions," the results (with few exceptions) are good, and sometimes remarkable (1). Based on her review of these data, Rodin suggests how control options and self-determination opportunities can be provided to individuals. However, Rodin does not directly tackle the issue of the relationship between "control-enhancing strategies" offered by and from the environment, and "self-control" strategies which are generated by the individual and can be used both internally as coping strategies, and externally to act on the environment. Further, Rodin's data come primarily from the laboratory and institutional settings (e.g., nursing home). It is not clear how effectively these techniques would generalize to less structured, less hospitable, and more complex environments.

Therefore, a critical question which remains unanswered (and also unasked in her article) is how much control can an individual actually develop over his or her own behavior and cognitions. For example, an impairment of control is a central feature in many clinical problems: the eating disorders (anorexia, bulimia, obesity (2); drug and alcohol addictions (3);

stress and anxiety related disorders (4); depression (5); type A behavior and coronary disease(6).

Over the past two decades considerable research attention has been directed toward developing self-management strategies to provide patients increased control over their physical and emotional wellbeing. However, the research on these techniques (e.g., biofeedback, meditation, progressive relaxation, behavioral self-management, guided imagery, cognitive behavior modification) (7) has reached a plateau. Although the techniques are more effective than placebo-control groups, recent research has had difficulty differentiating clinical effectiveness between competing strategies (8).

Further, interventions with clinical problems related to impairments of control indicate that relapse, and lack of adherence and compliance, are frequent across type of intervention and type of clinical problem (9). In addition, biochemical evidence challenges any unidimensional theory of personal self-control (10). Therefore, subsequent research needs to investigate to what extent self-control strategies and control-enhancing interventions, either alone or in combination, are effective in addressing clinical problems of impairments of control as well as social issues such as the aged and the poor.

HUMAN CONTROL, SENSE OF CONTROL, AND SELF-CONTROL Clarifying Terms

Theory construction requires efforts at operationalizing terms and constructs, and this is particularly important when dealing with the complexity of issues involved in human control. Rodin's article uses several different control-related terms with

potentially variable meanings (11). As one example, the term "sense of control" is ambiguous and leaves unanswered the following: a) does a "sense of control" mean a phenomenological experience of control in the present, or is it the feeling that one can be in control in the future (what Rodin calls "perceived control" defined as "enhancing predictability"); b) whether a person has actual control, as well as a subjective perception of control; c) whether this sense of control has been generated by self-control behaviors, control-enhancing interventions, or from belief that a benevolent other "has things in control." (12).

Rodin shifts from the term "sense of control" to actual control in defining control: "causing an intended event and avoiding unintended events," and suggests the alternative term "self-determination" because individuals may feel "freedom" not only by exercising direct control, but also by choosing "not to exercise direct control" (footnote 3., p. 1275) (13).

However, there are many events of both a major nature (e.g., death) (14) and of a minor nature (e.g., daily hassles) (15) which we cannot control. Rodin fails to make the critical distinction between altering salient things we can directly control (a mastery model) and dealing with those things we cannot control and to which we can only hope to respond well (a coping model) (16).

Rodin's definition also reflects a Western cultural bias where control includes only active efforts to alter or change, or to use restraint to refrain from altering or interfering. However, there is a literature in Eastern thought which conceptualizes

control in terms of yielding, acceptance, and letting go (17). From our Western perspective, the "sense of control" gained from letting go of active control may initially seem paradoxical. However, acceptance may give us more of a sense of control than efforts to continue to try to change that over which we do not have control (18).

Finally, one further point on the relationship of actual control and sense of control seems necessary. Rodin accurately notes that the "sense of control" is generally positive, but sometimes negative. However, she does not address the situation where a person feels a sense of control, but in fact does not have control over the situation. This "illusory" sense of control can be caused by unhealthy defenses of denial and self-deception, and giving up a false sense of control may sometimes be necessary in order to eventually gain more actual control (19). Interestingly, however, an illusory sense of control can sometimes be healthy for individuals (20).

Future research needs to investigate when having a sense of control is functional, and when it is dysfunctional. This work also needs to consider what type of control strategies may be useful--active or letting go--under different circumstances.

VALUES AND PHILOSOPHICAL QUESTIONS

Rodin does not directly tackle the question of free will versus determinism, but because it is so integral to the topic of human control and self-control (21), is forced to deal with it, albeit obliquely. For example, she notes she "designed a study to encourage individuals to make more choices (1272)" and states we should "provide but not impose" (1275) opportunities for

control, and ensure that expectations are "not raised beyond available opportunities" (1273).

Rodin appears to be saying that "control" is something to be given to individuals, but it is unclear by whom. Thus, she does not address the question of the role of the individual's own capabilities for self-control, and, in addition, it is also unclear whether Rodin is arguing from a political/public policy, a values, or a scientific position. From a political standpoint, the issue has public policy implications ranging from topics of self versus social regulation to social welfare; and legal implications regarding individual competency. From a values standpoint, the issue is one of who sets the "goals" of how much control, and control towards what ends (e.g., societal survival; social Darwinism; individual "self-actualization."). From a scientific standpoint, dealing with ultimate goals of control borders on the teleological, and some might argue goes beyond science's purview. Yet we feel that without raising these questions and without the subsequent critical analysis, the technology of self-control strategies and unexamined cultural norms may, by fiat, determine the answers (22).

Rodin does implicitly raise value-laden questions in several places, speaking of "increased opportunities for control" and helping individuals develop a "greater sense of personal efficacy"; of not offering control to individuals unless "options would persist." However, we feel more explicit guidelines are needed, including efforts toward an empirically based values framework for control and self-control strategies.

developing norms for impairments of control for clinical problems, and formulating models of optimal control and wellbeing (23).

SUMMARY AND FINAL COMMENTS

The construct of control is relatively easy to operationalize and document in the animal literature (24) but, as we have indicated, when discussing humans it is a considerably more complex and difficult scientific and philosophical issue. The authors, with only minor exceptions, agree with the thrust and content of Rodin's excellent article. Our intent in these comments is to raise questions and suggest refinements to help ensure that a strong theoretical, empirical, and clinical foundation is established for research in the area of human control and self-control. We believe this literature is at a potentially pivotal juncture, and hope that the questions raised and issues discussed may help in the development of a more complete, empirically based science of human control and self-control--ranging from environmental effects to biological variables--that will bridge theory and clinical practice, for the health and wellbeing of both the individual and society.

NOTES AND REFERENCES

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4. D.H. Shapiro. *The Psychotherapy Patient* (1987, in press); L. Abrahamson, J. Garber, and M.E.P. Seligman in *Human Helplessness*. J. Garber and M.E.P. Seligman, Eds., (Academic, New York, 1980); Shapiro, D.H. *Psychologia* 19,3 (1976).
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7. These techniques, which can be loosely subsumed under the label "self-control strategies" are discussed and summarized by D.H. Shapiro in *Encyclopedia of Psychology* in R. Corraini, Ed. (Wiley, New York 1984, Vol. 3) pp. 265-268; D.H. Shapiro and J. Shapiro. *Family Practice Recertification* 2, 10 (1980).
8. D.H. Shapiro. *Am. J. Psychiatry* 139, 3 (1982). D.H. Shapiro and R.M. Walsh. *Meditation: Classic and Contemporary Perspectives* (Aldine, New York, 1984);
9. K.D. Brownell. G.A. Marlatt. E. Lichtenstein. and G.T. Wilson. *Am. Psychol.* 41,7 (1986); P. Nathan. *Ann. Behav. Med.* 8,2-3 (1986)
10. For specific examples on alcoholism and obesity, see P. Nathan. *Ann. Behav. Med.* 8,2-3 (1986); A.J. Stunkard, T.I.A. Sorenson, C. Hanis, T.W. Teasdale, R. Chakraborty, W.J. Schull, and F. Schulsinger, *N. Engl. J. Med.* 314 (1986). For a general discussion, see P.H. Wender and D.F. Klein *Mind, Mood, and Medicine* (New American Library, New York, 1982).
11. These terms include "increased self-management"; "personal efficacy"; "perceived control"; "feelings of self-determination"; "loss of coping abilities"; "preferred amounts of control"; "lack

of control." We have already made some refinements and distinctions within the text itself (sense of control versus actual personal control; self-control strategy versus control-enhancing intervention). As a further effort at clarification, we feel the following need to be differentiated:

a) lack of control from loss of control (in which a person once had control in an area, and then lost it. See J. Breha *A Theory of Psychological Reactance* (Academic Press, New York, 1966). When considering the construct "lack of control," the following needs to be addressed 1) is the area where there is "lack of control" salient to the individual. 2) what is the process by which an individual defines a particular domain or event as salient; 3) What strategies do individuals use to cope with salient uncontrollable events.

b) Self-control versus self-control strategy. Self-control is a construct composed of six components: choice, discipline, awareness, skill, responsibility, goal. See D.H. Shapiro, *Biofeedback Self Regul.* 6,1, (1983). M. Mahoney and C. Thoresen *Self-Control* (Monterey, California, Brooks-Cole, 1974); Self-control strategy is a cognitive or behavioral activity generated by the organism to reach previously self-chosen goals. See D.H. Shapiro, in *Encyclopedia of Psychology*, R. Corsini, Ed., (Wiley, New York, 1984, Vol 3), pp. 285-288; D.H. Shapiro, *Perspect. Biol. Med.* 26,4 (1983). Subsequent research needs to determine 1) what are the empirical outcome differences which occur between control-enhancing interventions offered by the environment, and self-control strategies generated by the organism (see #13); 2) the actual, non-semantic differences which exist between those two control related constructs (e.g., role of conscious choice, effort); 3) Ways in which social, cultural, and/or religious values and institutions influence a person's sense of control, actual control, and/or self-control through environmental planning, options, affordances (either unidimensionally or reciprocally (see #22 free will and determinism).

c) personal control and self-control--see M. Frankenhaeuser in *Dynamics of Stress*, M.H. Appley and R. Trumbull, Eds. (Plenum, New York, 1986); as well as sense of control and self-efficacy (belief that one can accomplish a task to effect change)--see A. Bandura, *Social Foundations of Thought and Action* (Prentice Hall, Englewood Cliffs, NY, 1985); A. Bandura, *Psychol. Rev.* 84,2 (1977). See also R. Averill, *Psychol. Bull.* 80,286 (1973); S. Cohen, G.W. Evans, D. Stokols, D.S. Krantz, Eds., *Behavior, Health, and Environmental Stress* (Plenum, New York, 1986).

12. Taylor's work is instructive here showing that for cancer patients, the use of self-control strategies in areas where they could control (i.e., running, diet, information seeking) was one healthy coping strategy; and another, equally effective, was belief that a "benevolent other" (i.e., in this study, the Doctor) was in control and could handle the situation. It appears that even when we don't personally feel we are responsible for effecting control, if we feel a benevolent other is in control, this may mitigate potential negative effects of lack of control. S. Taylor, *Am. Psychol.* 38, (1983). See also S. Miller, *Behav.*

Res. Ther. 17 (1979); S. Cohen, G.W. Evans, D. Stokols, D.S. Krantz, Eds., Behavior, Health, and Environmental Stress (Plenum, New York, 1986).

13. Cited in Rodin, from E. Deci and R. Ryan, Intrinsic Motivation and Self-Determination in Human Behavior (Plenum, New York, 1985).

14. T. Holmes and R. Rahe, J. Psychosom. Res. 11, 213 (1967); J.G. Rabkin and E. L. Struening, Science 194 (1976).

15. R.S. Lazarus, in C. Eisendorf, D. Cohen, A. Kleinman, and P. Nexia, Eds., Models for Clinical Psychopathology (SP Medical and Scientific Books, New York, 1961); R.S. Lazarus, A. De Longis, S. Folkman and R. Gruen, Am. Psycho. 40 (1985); S. Cohen, G.W. Evans, D. Stokols, D.S. Krantz, Eds., Behavior, Health, and Environmental Stress (Plenum, New York, 1986).

16. For a discussion of the mastery model, see J. Wolpe The Practice of Behavior Therapy (Pergamon Press, New York, 1969). For a discussion of the coping model, see M.R. Goldfried, in M. R. Goldfried and M. Merbaum, Eds., Behavior change through self-control (Holt, Reinhart, Winston, 1973); D. Meichenbaum and R. Cameron, in Self-control, M. Mahoney and C. Thoresen, Eds., (Brooks-Cole, Monterey, California, 1974). For a comparison of the two models, see D.H. Shapiro and S.M. Zifferblatt, Am. Psychol. 31, 7 (1976).

17. R.N. Walsh, Am. J. Psychiatry 137, 6 (1980); D.H. Shapiro, Precision Nirvana (Prentice Hall, Englewood Cliffs, New Jersey, 1978); R.N. Walsh and D.H. Shapiro, Eds., Beyond Health and Normality: Explorations of Exceptional Psychological Wellbeing, (Van Nostrand/Reinhold, New York, 1983); M.N. Palasane, S.N. Bhevsar, R.P. Goswami, and G.W. Evans, Indian Journal of Psychology 5, 1 (1986).

18. Reinhold Niebuhr's quote is instructive: "God grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference." For an effort to operationalize that, see D.H. Shapiro in R.N. Walsh and D.H. Shapiro, Eds., Beyond Health and Normality: Explorations of Exceptional Psychological Wellbeing, (Van Nostrand/Reinhold, New York, 1983); D.H. Shapiro, Psychologie 28, 4 (1985).

19. J. Suls and B. Fletcher, Health Psychology 4 (1985); S. Roth and L.J. Cohen, Am. Psychol. 41 (1986). For example, Alcoholics Anonymous states that as a first step individuals must give up their (illusory) sense of control and develop personal beliefs that they are powerless over their addiction--that their lives have become unmanageable, that they do not have the ability to control their problem, and must turn to something outside themselves for help.

20.. R.S. Lazarus, in The Denial of Stress, S. Brenitz, Ed.

(International University Press, 1983); N.H. Cassen and T.P. Hackett, *Ann. Int. Med.* 75, 9 (1971); P.M. Lewinsohn, W. Mischel, W. Chaplin, R. Barton, *J. Abnorm. Psych.* 89 (1980); H.M. Lefcourt, *Am. Psychol.* 28, (1973).

21. Although tackling the complex issue of causality is beyond the scope of these comments, to discuss self-control one is forced to presume that some percent of the variance is due to individual choice and free will. For a discussion of causal issues, including Rollo May and the existentialist's person centered undeterminism, B.F. Skinner and the radical behaviorist's environmental undeterminism, and A. Bandura's social learning theorist's reciprocal determinism, see A. Bandura, *Am. Psychol.* 33 (1978). For a discussion of the paradox of "teaching" self-control strategies, see D.H. Shapiro, *Meditation: Self-Regulation Strategy and Altered States of Consciousness* (Aldine, New York, 1980). For a discussion of developing a science of volitional action, see G.S. Howard and C.G. Conway, *Am. Psychol.* 41 11, (1986).

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23. J. Shapiro and D.H. Shapiro, *N. Engl. J. Med.* 301 (1979); F. Kanfer, *Am. Psychol.* 34 (1979); see also #16.

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