"The Facts Concerning the Recent Carnival of *Smoking* in Connecticut" *and Elsewhere*

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■ **The behavior of health care practitioners toward their patients can greatly affect the patients' motivation for change. Mark Twain's story, "The Facts Concerning the Recent Carnival of Crime in Connecticut," is used to illustrate how traditional strategies for motivating patients to change can have the paradoxic effect of inhibiting change and growth. We use a theory of human motivation, referred to as self-determination theory, to explain this effect and suggest alternative strategies for facilitating patient motivation. Empirical tests of the theory have shown that people will accept more responsibility for behavior change when motivated internally rather than externally. In the doctor-patient relationship, this internal motivation for change can be faciliated when doctors allow choice, provide relevant information, and acknowledge the patient's perspective. We propose a simple, three-question model, consistent with self-determination theory, for physicians to use with patients who smoke and are not yet ready to try quitting.**

Annals of Internal Medicine. 1991;**115**:59-63.

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I beg you. I beseech you. I implore you.
Crush out that fatal habit.

In Mark Twain's short story, "The Facts Concerning the Recent Carnival of Crime in Connecticut" (1), Twain, an avid smoker, used an ingeniously deceptive application of the time-proven strategy of "divide and conquer" to win a battle over his conscience and his nagging Aunt Mary, whose words appear above. Finally released from the life-long control of his conscience and his aunt, the guilt-free Twain smoked gleefully and settled past scores with a crime spree.

Health care practitioners who have been frustrated in their attempts to convince patients to quit smoking might empathize with Twain's Aunt Mary, but they might also improve the chances of helping their patients to stop smoking if they understood the psychologic dynamics represented by Twain's characters. Because 70% of adult smokers see their primary care physician each year (2, 3), a brief intervention based on this understanding could well have an effect on smoking in this country.

Twain's Story

Twain is expecting a visit from his idolized, although somewhat feared, Aunt Mary. Before her arrival, however, Twain has an unexpected visit from an ugly two-foot-tall dwarf: in his words, "a deformity." In the delightful dialogue that ensues, Twain discovers that the dwarf is his Conscience. Overjoyed at confronting his lifelong foe—the source of so many painful intrusions into his life—Twain engages in several failed attempts to murder him. But the harder he tries, the more facile the dwarf becomes.

When Aunt Mary arrives she begins immediately to chastise Twain, which no doubt pleases the Conscience because she is doing his work for him. Aunt Mary's exhortations initially focus on how Twain had neglected a poor sick child she had asked him to look after, and Twain's shame increases. When she emphasizes the child's lonely death, the Conscience becomes completely superfluous in the face of Twain's suffering and shame.

Seizing the opportunity, Twain directs his aunt to the topic of his smoking, believing this will apply the coup de grâce to the dwarf. She admonishes, "Oh, promise me you will throw off this hateful slavery of tobacco! Oh, promise, or you are lost! Promise and be redeemed! Promise and live!"

Twain's Conscience, now unnecessary in light of Aunt Mary's evaluations and chastisements, falls fast asleep; Twain grabs him by the throat, tearing him "to shreds and fragments." Freed at last from his foe, "the deformity," Twain describes his new life: "Since that day my life is all bliss. . . . I settled all my outstanding scores, and began my world anew. I killed thirty-eight persons during the first two weeks—all of them on account of ancient grudges. . . . I have committed scores of crimes, of various kinds, and have enjoyed my work exceedingly."

Interpretation

To understand the relevance of the story for smokers, let us review the cast of characters. First, there is "the Conscience," that internal controlling process that regulates or restrains the person using threats, guilt, and other emotional discomforts. It is a voice of "shoulds" that can be oppressive and unreasonable.

The conscience of most smokers nags them about their habit. Few smokers still believe that smoking is harmless, and their conscience is usually more than willing to point out their poor judgment and lack of self-control.

Our second character is the "rebellious tendency": that part of Twain that triumphed after the execution of

the conscience. The rebellious tendency does not like to be told what to do—whether by the conscience or another person—and is likely to do just the opposite if it can get away with it. Say, "don't smoke," and one's rebellious tendency will want to smoke just because it was told not to. The rebellious tendency reacts against attempts to restrict its choices and the strength of this reaction can be appreciated by exploring the motivation behind teenagers' beginning to smoke. The initial act of smoking is not pleasurable; in fact, it is relatively noxious. Many adolescents smoke despite this, however, in part to gain peer approval. But typically that motivation is liberally supplemented by their need to demonstrate independence from the control of adults; in other words, to rebel against their parents' authority. Smoking seems to allow teenagers to feel grown up and in control and, not surprisingly, 75% of all smokers start in their teens (4).

Although the act of smoking can become pleasurable (perhaps by managing anxiety, satisfying an addiction, gratifying orality, or some combination of these factors), we suggest that a smoker's insistence on continuing to smoke when an authority figure or conscience says to stop is partially a reaction against threats to his or her autonomy or self-determination. It is essentially rebellion. Twain's crime spree was probably largely a function of spiteful vengeance against both the life-long evaluations of his conscience and the control by authorities like his aunt.

The third important character in the story is the powerful "authority figure," Aunt Mary. Authorities typically work in conjunction with an individual's conscience, but when either becomes too demanding and controlling, rebellion may be fueled, thus preventing beneficial behavior change. With Aunt Mary's persistently nagging presence, the conscience became weaker, allowing Twain to silence it permanently. Wanton rebellion ensued.

Health care practitioners are particularly well cast in the role of authority figures. Most smokers, like Twain, are already struggling with their consciences, so it is probably counterproductive for the practitioner to be controlling and thus join punitive ranks with the patient's conscience.

As insightful and clever as Twain was in telling this story, he omitted one highly important character in the drama. That character is the "growth-oriented self," the part of each of us that underlies our healthy development (5, 6). The growth-oriented self is inherently motivated to master situations and to adapt and adjust to life's circumstances. Its role is to engage in actions that are healthy and adaptive for the person, even when that involves conquering addictions. The "growth-oriented self" co-exists with the "rebellious tendency" and attempts to keep that tendency in check so the person can behave in healthier, more adaptive ways. The problem, however, is that the interaction between an authority figure, a conscience, and a rebellious tendency can interfere with the work of a person's growth-oriented self.

A recent theory of human motivation, referred to as self-determination theory (7), has used concepts that allow us to understand and apply the dynamics described by Twain. The theory, which has been subjected to numerous empirical tests in psychological laboratories (8), homes (9), schools (10), medical clinics (11), and work organizations (12), is particularly germane because it explicates the ways in which an authority figure can promote the growth-oriented self rather than undermine autonomy and stimulate the rebellious tendency.

Self-Determination Theory

Self-determination theory (5, 7), like other humanistically oriented psychological theories (13-15), describes people's innate growth tendency, although unlike those other theories, it was based on a great number of empiric investigations and is formulated in a way that facilitates continued research. The theory asserts that humans have an intrinsic need to be self-determining; that is, they want to master the environment and self-regulate effectively. When people are self-determining, their motivation is internal: They are engaging in an activity because it is interesting or important for them, not because someone else demands it. Many studies have linked this internal motivation to positive adjustments in both children and adults (10, 16).

The concept of self-determination (and internal motivation) differs from the concept of an internal locus of control (17, 18) that has become familiar in the literature on behavioral medicine. An internal locus of control refers to people's belief that there is a direct relation between their own behavior and their (health) outcomes. Self-determination, in contrast, refers to people's being self-initiating (that is, to their being regulated by the growth-oriented self) and experiencing a sense of choice in their actions. It is thus possible for a person to have an internal locus of control and to feel pressured or coerced by "the Conscience" or by a physician to engage in the instrumental behavior. In such cases, the person is *not* being self-determined, and we predict nonoptimal results.

Considerable research has shown that people become more internally motivated when their parents (9), teachers (10), doctors (19), and managers (12) encourage and support their self-initiation (5). Accordingly, health-oriented behaviors and, more generally, positive development are likely to flourish when health care practitioners and other key authority figures stimulate patients' internal motivation for change by supporting their self-determination rather than by controlling their behavior. Even the language used by authorities to suggest change can affect people's internal motivation and subsequent behavior change (20). When authorities such as physicians emphasize what people *should* do, people tend to be less internally motivated to do it. They are likely either to rebel or to comply to please the authority. But even if they comply, when the authority stops "looking" the behavior may also stop. Several studies have shown that when external controls do produce behavior change, the change persists only so long as the controls are salient (7).

In medical care settings, practitioners can promote patients' internal motivation by not being directive or controlling and instead allowing patients to choose. It is

also helpful for practitioners to accept and acknowledge the patients' feelings, which if not acknowledged, could act as an internal barrier to change. For example, when physicians discuss patients' previous attempts to stop smoking, it is useful to acknowledge the patients' feelings of discouragement or frustration, so they will feel validated and perhaps able to try again. In such discussions, it is always important to allow the patients to make their own decisions to stop rather than to pressure them to do so.

When physicians apply pressure to control patients' behavior (thus using an approach that Twain's Aunt Mary would endorse), the patients' autonomy and internal motivation to change are undermined. This in turn can lead to one of these all-too-familiar scenarios: The patient who is unable to change feels guilty and stays away from the doctor's office; the rebellious patient sabotages the change process and provides excuses for why the physician's suggestions did not work; or the patient makes the demanded behavior change but when visits become less frequent, the change is short-lived. Meaningful, long-lasting change is most likely to occur when it is internally motivated.

Self-Determination and Health

Although application of self-determination theory to the health care domain is new, five recent studies suggest that it holds promise. Plant (21), assessing participants' reasons for entering an alcohol treatment program, found that their internal motivation for undergoing treatment was significantly predictive of their remaining in treatment for the duration of the program. Curry and colleagues (22) reported that smokers who endorsed internal reasons for wanting to quit were more successful in doing so than smokers who endorsed external reasons (for example, "other people are nagging me to quit"). Together, these two studies link internal motivation to program attendance and change of addictive behaviors.

The other three studies explored how the treatment context (particularly the communication style of the treatment provider) relates to internal motivation and health-related behavior change. Williams and colleagues (11) studied morbidly obese patients in a medically supervised weight-loss program. Results indicated that patients' perceptions that providers were supportive of autonomy (rather than controlling) were positively correlated with their internal motivation to lose weight and with their actual weight loss over the 6-month treatment program.

Kaplan and associates (19) analyzed audiotaped interactions between physicians and patients with hypertension, diabetes, peptic ulcer disease, or breast cancer. Results revealed a correlation between physicians being controlling and directive in the interview and patients having poor health outcomes, measured physiologically (for example, higher diastolic blood pressure and poorer glucose control) and behaviorally (as functional status) and by patients' self-reported experience of health. In addition, patients being more active or autonomous in the interaction was positively correlated with beneficial health outcomes.

Finally, a recent clinical study by Ockene and colleagues (23) suggests that autonomy-supportive interventions may help promote smoking cessation. Their study involved teaching medical residents to use patient-centered counseling techniques with their patients who smoked and, although the study was not formulated in terms of autonomy support, the patient-centered techniques used are consistent with what we label an autonomy-supportive physician style. The patient-centered condition (particularly when used in conjunction with offering nicotine-containing gum) led to significantly greater rates of cessation and thus provided additional support for our theoretical framework.

These five studies, when considered together, suggest that health care providers' controlling behaviors (whether assessed by patient perceptions or observer ratings) are associated with lower internal motivation, less behavior change, and poorer health outcomes than are autonomy-supportive behaviors.

Smoking Cessation

Ninety percent to 95% of the 33 million smokers who quit during the period between 1964 and 1982 (1964 was the year of the first Surgeon General's report concerning the health risks associated with smoking) did so on their own. Further, most smokers who responded to a recent survey said they would prefer stopping on their own to participating in a formal program (24). Coupled with the fact that current smoking cessation programs have a long-term success rate of less than 10% (25), one sees that it is important for primary care physicians and other direct providers to facilitate patients' internal motivation to stop smoking.

The Three-Question Model

We now outline a simple three-question intervention that is consistent with self-determination theory and can be used by any practitioner with patients who smoke and are not ready to quit. By current classifications (26), such patients, like Twain (as the protagonist in the story), would be considered "precontemplators." Because a precontemplator remains largely unaffected by smoking cessation interventions (27, 28), any actions by a physician to focus a patient's attention on the possibility of ceasing to smoke while allowing the patient to retain autonomous control over the decision could be of great value. The three questions are intended to do exactly that.

Question 1: "What do you understand about the health consequences of smoking?" This question assesses the patient's knowledge base and need for additional information. It should not contain an implicit evaluation of the person or a pressure to change. If the practitioner is assured that the patient's knowledge is adequate, the practitioner is ready to move on to the next question. If the patient does not have sufficient knowledge, health-related information about smoking should be provided. Once the patient's knowledge base is confirmed, however, repeated "educating" of the patient represents a subtle attempt at control or humiliation and is thus inappropriate.

Question 2: "Are you ready to quit?" The answer to this question differentiates people who are prepared to try stopping (contemplators) from those who are not (precontemplators). When asked in a nonjudgmental way, it conveys the practitioner's respect and support for the patients' choice, because the question conveys that the patients themselves are responsible for deciding whether or not to stop smoking.

When a patient is ready to quit, we suggest that the physician explore the patient's ideas about how to proceed. The physician may also provide information about methods with proven track records, although this is appropriate only if the patient expresses interest in them. These methods could include committing to a quit date, building a social support network, using nicotine gum, joining a smoking cessation program, or using self-administered procedures (27, 29, 30-32). We believe that the specific procedures used are not as important as the patient's interest and motivation for using them. Any of these or other methods can be effective in dealing with an addictive behavior if the patient is internally motivated and thus committed to change through self-regulation.

If a patient has tried quitting and failed, the provider can acknowledge that it is difficult to stop smoking, perhaps pointing out that most successful quitters failed at least once before they succeeded. Reframing past failed attempts to quit as small successes, for example, may be supportive for the patient. After exploring and acknowledging the patient's past attempts to quit, the practitioner can move on to whether the patient is ready to try again.

If the patient responds to question 2 by saying he or she is not ready to quit, any controlling efforts by the health care practitioner are likely to be counterproductive. To cease smoking and to maintain that cessation, a smoker must find a reason within himself or herself to quit. The practitioner can, however, facilitate this search by asking the third question.

Question 3: "What would it take for you to stop smoking?" This question needs to be asked in a serious but supportive manner. It should not convey a negative evaluation, nor should it be used to induce guilt. Rather it is intended to stimulate the patient to seriously consider personal reasons that could provide internal motivation for quitting. If the patient has no answer to the question, the practitioner could suggest that it may be worthwhile to mull it over.

This third question provides the patient's growth-oriented self an opportunity to think about personally important reasons to stop smoking and to decide whether such reasons outweigh the functions that smoking serves. By not lecturing the patient or demanding that he or she stop, the practitioner decreases the likelihood that the defiant, rebellious tendency will interfere with the patient's efforts to make an autonomous choice. If the patient finds no personal reason that is important enough to override the gains he or she gets from smoking, we believe it is appropriate to accept the patient's informed choice. Doing so will demonstrate support for the patient's autonomy, and it will clarify the patient's responsibility for continuing to smoke despite the medical risks. The physician might then invite the patient to contact him or her if the patient reconsiders the decision and wants to try to quit.

By asking questions 2 and 3 at later visits, health care practitioners can convey their belief that smoking is an important health issue, the reality that the patient is making a choice whether to continue or to stop, and continued respect for the patient and his or her right to be self-determining.

The proposed three-question model has some similarities with other recently suggested smoking-cessation interventions that involve questions posed by physicians using a nonjudgmental style (33-35). None of these other interventions, however, includes the third question. We believe this question is the most important for precontemplators because it focuses their attention on the possibility of their ceasing smoking while emphasizing that the decision is theirs.

In closing, we emphasize that this set of questions is likely to be effective only if used in the noncritical, autonomy-supportive way we have outlined. If they are used in a controlling, evaluative, or subtly shaming way, as Twain's Aunt Mary might have done, the questions are likely to be counterproductive. Facilitating effective behavior change requires, above all else, that health care providers begin with a genuine respect for the patient's choice and capacity for self-regulation. From that perspective, the three-question model can initiate the process of smoking cessation by supporting the patient's autonomy and internal motivation. The model is not guaranteed to work—but then nothing is. It does, however, proceed from the patient's frame of reference and, as such, we believe it holds the greatest likelihood for success.

Acknowledgments: The authors thank Michael Mills for his editorial comments on an early draft and Elizabeth Whitehead for preparation of the manuscript.

Grant Support: In part by a grant from the National Institute of Child Health and Human Development (HD19914) to the Human Motivation Program in the Department of Psychology at the University of Rochester.

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References

1. **Twain M.** The facts concerning the recent carnival of crime in Connecticut. In: Kaplan J. Great Short Works of Mark Twain. New York: Perennial Library; 1967.
2. **Gritz ER.** Cigarette smoking: the need for action by health professionals. CA. 1988;38:194-212.
3. **Pederson LL.** Role of the physician in smoking cessation. In: Smoking and Health: Chronic Obstructive Lung Disease. Summary of the Health Consequences of Smoking. A Report of the Surgeon General. Washington, DC: Government Printing Office; 1984.
4. Guide to Clinical Preventive Services: report of the U.S. Preventive Services Task Force. Baltimore: Williams & Wilkins; 1989.
5. **Deci EL, Ryan RM.** A motivational approach to self: integration in personality. In: Dienstbier R, ed. Nebraska Symposium on Motivation. v 38: Perspectives on Motivation. Lincoln, Nebraska: University of Nebraska Press; [In press].
6. **Kohut H.** The Analysis of the Self. New York: International Universities Press; 1971.
7. **Deci EL, Ryan RM.** Intrinsic Motivation and Self-Determination in Human Behavior. New York: Plenum; 1985.
8. **Ryan RM.** Control and information in the intrapersonal sphere: an

extension of cognitive evaluation theory. J Pers Soc Psychol. 1982; 43:450-61.
9. **Grolnick WS, Ryan RM.** Parent styles associated with children's self-regulation and competence in school. Journal of Educational Psychology. 1989;81:143-54.
10. **Deci EL, Nezlek J, Sheinman L.** Characteristics of the rewarder and intrinsic motivation of the rewardee. J Pers Soc Psychol. 1981;40: 1-10.
11. **Williams GC, Deci EL, Ryan RM, Freedman Z.** Self-determination and attrition from a weight loss program [Abstract]. Clinical Research. 1991 [In press].
12. **Deci EL, Connell JP, Ryan RM.** Self-determination in a work organization. Journal of Applied Psychology. 1989;74:580-90.
13. **Rogers CR.** On Becoming a Person: A Therapist's View of Psychotherapy. Boston: Houghton Mifflin; 1961.
14. **Maslow AH.** Motivation and Personality. 2d ed. New York: Harper & Row; 1970.
15. **White RW.** Ego and Reality in Psychoanalytic Theory. Psychological Issues Series, monograph no. 11. New York: International Universities Press; 1963.
16. **Langer EJ, Rodin J.** The effects of choice and personal responsibility for the aged: a field experiment in an institutional setting. J Pers Soc Psychol. 1976;34:191-8.
17. **Rotter JB.** Generalized expectancies for internal versus external control of reinforcement. Psychol Monogr. 1966;80:1-28.
18. **Wallston KA, Wallston BS, DeVellis R.** Development of the Multidimensional Health Locus of Control (MHLC) Scales. Health Educ Monogr. 1978;6:160-70.
19. **Kaplan SH, Greenfield S, Ware JE Jr.** Assessing the effects of physician-patient interactions on the outcomes of chronic disease. Med Care. 1989;27:S110-27.
20. **Koestner R, Ryan RM, Bernieri F, Holt K.** Setting limits on children's behavior: the differential effects of controlling versus informational styles on children's intrinsic motivation and creativity. J Pers. 1984;54:233-48.
21. **Plant RW.** Motivation, expectation, and psychiatric severity in predicting early dropout from outpatient alcoholism treatment. Dissertation Abstracts International. 1991;S1:3579-B.
22. **Curry S, Wagner EH, Grothaus LC.** Intrinsic and extrinsic motivation for smoking cessation. J Consult Clin Psychol. 1990;58:310-6.
23. **Ockene JK, Kristeller J, Goldberg R, et al.** Increasing the efficacy of physician delivered smoking interventions. A randomized clinical trial. J Gen Intern Med. 1991;6:1-8.
24. **Fiore MC, Novotny TE, Pierce JP, et al.** Methods used to quit smoking in the United States. Do cessation programs help? JAMA. 1990;263:2760-5.
25. **Ockene JK.** Toward a smoke-free society [Editorial]. Am J Public Health. 1984;74:1198-200.
26. **Prochaska JO, Velicer WF, DiClemente CC, Fava J.** Measuring processes of change: applications to the cessation of smoking. J Consult Clin Psychol. 1988;56:520-8.
27. **Cummings SR, Coates TJ, Richard RJ, et al.** Training physicians in counseling about smoking cessation. A randomized trial of the "Quit for Life" program. Ann Intern Med. 1989;110:640-7.
28. **Jackson PH, Stapleton JA, Russell MA, Merriman RJ.** Predictors of outcome in a general practitioner intervention against smoking. Prev Med. 1986;15:244-53.
29. **Ockene JK, Quirk ME, Goldberg RJ.** A residents' training program for the development of smoking intervention skills. Arch Intern Med. 1988;148:1039-45.
30. **Blöndal T.** Controlled trial of nicotine polacrilex gum with supportive measures. Arch Intern Med. 1989;149:1818-21.
31. **Glynn TJ.** Physicians and a smoke-free society. Arch Intern Med. 1988;148:1013-6.
32. **Wilson DM, Taylor DW, Gilbert JR, et al.** A randomized trial of a family physician intervention for smoking cessation. JAMA. 1988; 260:1570-4.
33. **Glynn TJ, Manley MW, Pechacek TF.** Physician-initiated smoking cessation program. The National Cancer Institute trials. In: Engstrom PF, Rimer BK, Mortenson LE, eds. Advances in Cancer Control: Screening and Prevention Research. New York: Wiley-Liss; 1990:11-25.
34. **Orleans CT, Rotberg HL, Quade D, Lees P.** A hospital quit-smoking service: clinical report and intervention guidelines. Prev Med. 1990; 19:198-212.
35. **Prochaska JO, DiClemente CC, Verdi MC, et al.** Understanding yourself as a smoker. East Greenwich, Rhode Island: Mancini Associates; 1987.