

Appendix 2: What Self-Determination Theory tells managers

We know that some people are more energetic, curious or persistent than others. But beyond dispositional or genetic differences, the same person can react very differently depending on the social context. Self-determination theory seeks to explain why. It investigates the conditions that tend to boost or dampen people's natural activity and enthusiasm.ⁱ

Self-determination theory proposes that people's actions are driven by three core needs: first, the need for *autonomy*, which means making your own choices on issues concerning you; second, the need for *competence*, which means exercising your abilities or improving them; and third, the need for *relatedness*, connecting with others or feeling socially valued.

Attending to these pillars of motivation is especially important for those whose role is to "motivate" others, such as teachers, coaches, managers or indeed parents. When these core needs are somehow thwarted, motivation and performance are affected in a variety of ways.

Autonomy: The importance of autonomy to motivation was first demonstrated in a study where students were paid to work on a popular puzzle called Soma.ⁱⁱ Another group of students performed the same task but without rewards. When the rewards were discontinued, the students who had previously been paid were far less inclined to continue playing with the puzzle than their colleagues who had not been paid. Introducing rewards had reduced their motivation to solve the puzzle "just for the fun of it" – an idea strikingly echoed by the basketball legend, Bill Russell, when he conceded: "The game lost some of its magical qualities for me once I thought seriously about playing for a living."ⁱⁱⁱ

This study, and others like it, established the fact that motivation could be damaged when incentives were provided for engaging in an activity that people might have chosen to do anyhow. This became known as the "overjustification effect".^{iv} The fact that rewards could reduce task interest, making people less enthusiastic about learning, play or work, was hotly debated – understandably, given the widespread use of such incentives among parents, educators and employers.^v Yet rewards are merely a special case of attempts to "control" our behavior. The wider point is that *reduced autonomy* tends to demotivate people.

The dangers of needlessly reducing autonomy are highlighted by a brilliantly simple experiment. Two groups of children were asked to read two short passages from textbooks.^{vi} One group of children were told they would be tested and graded on what they read, the others were simply asked to read it with no mention of testing. In fact both groups were tested – but those who had not expected a test turned out to have a better conceptual understanding of the material. This suggests that loss of autonomy does not just modify attitudes, but actually has direct performance consequences, in this case to do with the quality of learning.

Of course, it could be argued that the group of people who thought they would be tested were actually misled. The expectation of a test had simply activated the wrong sort of learning; focusing their attention on memorizing the facts and neglecting to process the information so clearly. The twist is that one week later both groups were

tested again, this time on their factual recall. Those who had originally learnt “for a test” had actually forgotten far more “facts” than those who had learnt for the sake of it.

The key point, then, is that a sense of choice tends to mobilize our energies, while demands and constraints tend to sap them. And clearly there is a host of other “controlling” events besides rewards or evaluations that have been shown to produce similar consequences, including threats, surveillance, deadlines, and imposed goals.^{vii} As Robert Benchley wittily put it, over 60 years ago: “Anyone can do any amount of work, provided it isn’t the work s/he is supposed to be doing at the moment.”

Competence: The early studies into the impact of rewards on motivation suggested that the more controlling the reward, the more it would undermine motivation. According to this logic, rewards linked to the *level* of performance should be even more detrimental to motivation than rewards making more modest demands, like completing the task or just engaging in it. In reality, it did not turn out that way. Various studies showed that rewards tied to levels of competence actually promoted interest.^{viii}

What the early theory had overlooked was the capacity of rewards to carry competence affirming information. Rewards, or indeed feedback, linked to the quality of performance confirm a person’s effectiveness and the impact on motivation is strong enough to outweigh the negative effects of “being controlled”.

These contradictory influences were neatly illustrated in a study of feedback. Individuals in one group were told that it was important for them to perform well on the puzzle task because their data were needed to complete the study. About halfway through the experiment, they were told that they were doing well and that, if they kept up their performance, their data would be very helpful. At the end of the period they were told that they had done well and that their data would indeed be helpful. Individuals in the other group were simply asked to work as well as they could, then half way through were told that they were doing well, and at the end that they had done well. Although the feedback was positive in both cases, people in the first group experienced it as controlling with the result that they showed less motivation than those who received straight “informational” feedback.^{ix}

This study and others showed that while people like the sense of competence that positive feedback or rewards convey, they do not like the sense of being controlled that comes with having to meet certain standards. The study also showed how easily people’s motivation could be swayed, not by the direction of the feedback but by its intentions. Indeed, a later study showed that more subtle linguistic differences – like the use of the term “should” (as in “Good, you’re doing as you should”) – were enough to label the feedback as evaluative and to offset its competence affirming impact.^x

Relatedness: While the distinction between “controlling” versus “informational” events is reasonably clear at a *conceptual* level, in real life things are messier. Given that rewards and feedback often carry dual signals, the interpretation depends heavily on the style of the teacher, manager or authority figure *and* the disposition of the beholder. The question: “Are you praising me to get me to do more or because I did well?” can get opposite answers depending on the prevailing interpersonal context.^{xi}

A weak sense of relatedness means that ambiguous signals are more likely to be seen as controlling. This is especially the case with *negative* feedback where as Edward Deci points out: “It’s all in how you do it”.^{xii}

The sense of relatedness is also important when it comes to doing things people would not otherwise have chosen to do. For example, responses to requirements from “above” can range from unwillingness or passive compliance, right through to active personal commitment. The end point in this continuum is that the requested behavior is performed with the same enthusiasm as if it had been chosen. An everyday example would be the child who tidies her room because “I like it clean – it lets me find things easier” – as opposed to a child who tidies it to gain parental approval or to avoid punishment. What drives this process of assimilation is the sense of wanting to feel attached or related to significant others. Externally imposed behaviors come to be adopted “by choice” when the other person’s values and needs closely match our own. The need to feel connected with others is therefore centrally important for internalization of rules and procedures.^{xiii} While a controlling approach can be effective in getting people to act in a particular way, it is quite ineffective in promoting self-regulation.

So what are the benefits of better self-regulation? Studies with schoolchildren have generated some impressive findings. For example, highly self-regulated students showed more interest and enjoyment of school and expended more effort. Conversely, students who felt externally regulated showed less effort and less interest in achievement. They also tended to disown responsibility for negative outcomes, blaming others such as the teacher. Somewhere in the middle, were students who had conflicting impulses, having internalized the external controls somewhat, but not entirely. Among these students the effort was higher, but they also experienced more feelings of anxiety and had more difficulty coping with failures.^{xiv}

Summary

While earlier laboratory studies tried to isolate the antecedents and consequences of each core need, more recent studies have tried to explore these ideas in applied settings. These studies have also revealed both direct and indirect performance consequences.

For example, studies in schools have shown that perceived autonomy, competence, and relatedness are associated with: more engagement, better performance, lower dropout, higher creativity, and better teacher ratings.^{xv} And studies of home environments have shown that the children of autonomy supportive parents are more intrinsically motivated to learn.^{xvi}

Several studies have been conducted in clinics or treatment centers. For example, overweight patients on a medically supervised weight-loss program attended the program more regularly and maintained greater weight loss over the following two years when they viewed the health care provider as behaving in an autonomy-supportive manner.^{xvii} Similarly, patients who perceived their doctors as autonomy supportive were more likely to stick to medical prescriptions, and to be more successful in smoking cessation programs.^{xviii}

Studies inside companies have been rarer, but have also produced interesting findings. For example, a study of nearly 1,000 employees and managers in a major office machine corporation showed a significant relation between managers' support for self-determination and workers' job related attitudes.^{xix} A more recent study showed that employees' experiences of autonomy, competence and relatedness in the workplace predicted their performance and well-being at work.^{xx}

Thus, the evidence from various research settings involving authority relations – including schools, hospitals and business organizations – all points in the same direction. In short, self-determined motivation leads to more sustainable effort, better conceptual learning and better recall, less anxiety, more constructive reactions to failure, and enhanced performance.

ⁱ Deci, E. L., and Ryan, R. M. (1985) *Intrinsic Motivation and Self-Determination in Human Behavior* (New York: Plenum).

ⁱⁱ Deci, E. L. (1971) "Effects of externally mediated rewards on intrinsic motivation", *Journal of Personality and Social Psychology*, 18: 105-115.

ⁱⁱⁱ Russell, B., and Branch, T. (1979) *Second Wind: The memoirs of an opinionated man* (New York: Ballantine Books).

^{iv} Lepper, M. R., Greene, D., and Nisbett, R. (1973) "Undermining children's intrinsic interest with extrinsic reward: A test of the 'overjustification' hypothesis", *Journal of Personality and Social Psychology*, 28: 129-137. For a more recent review of this work see Tang, S.-H., and Hall, V. C. (1995) "The overjustification effect: A meta-analysis", *Applied Cognitive Psychology*, 365-404.

^v See for example the minor outrage provoked by Alfie Kohn's 1993 article: "Why incentive plans cannot work", *Harvard Business Review*, September-October: 54-63. The journal was flooded with letters that it published in the following issue: See also (1993) "Rethinking rewards", *Harvard Business Review*, November-December: 37-49.

^{vi} Grolnick, W. S., and Ryan, R. M. (1987) "Autonomy in children's learning: An experimental and individual difference investigation", *Journal of Personality and Social Psychology*, 52: 890-898.

^{vii} Deci, E. L., and Ryan, R. M. (1985) *Intrinsic Motivation and Self-Determination in Human Behavior* (New York: Plenum).

^{viii} Enzle, M. E., and Ross, J. M. (1978) "Increasing and decreasing intrinsic interest with contingent rewards: A test of cognitive evaluation theory", *Journal of Experimental Social Psychology*, 14: 588-597; see also Boggiano, A. K., and Ruble, D. N. (1979) "Competence and the overjustification effect: A developmental study", *Journal of Personality and Social Psychology*, 37: 1462-1468.

^{ix} Pittman, T. S., Davey, M. E., Alafat, K. A., Wetherill, K. V., and Kramer, N. A. (1980) "Informational versus controlling verbal rewards", *Personality and Social Psychology Bulletin*, 6: 228-233.

^x Ryan, R. M. (1982) "Control and information in the intrapersonal sphere : An extension of cognitive evaluation theory", *Journal of Personality and Social Psychology*, 43: 450-461.

^{xi} For a discussion of the evidence see Deci, E. L., Koestner, R., and Ryan, R. M. (1999) "A meta-analytical review of experiments examining the effects of extrinsic rewards on intrinsic motivation", *Psychological Bulletin*, 125: 627-668.

^{xii} Deci, E. L. and Flaste, R. (1996) *Why we do what we do* (New York: Penguin) 71.

^{xiii} Deci, E. L., and Ryan, R. M. (1985) *Intrinsic Motivation and Self-Determination in Human Behavior* (New York: Plenum).

^{xiv} Ryan, R. M., and Connell, J. P. (1989) "Perceived locus of causality and internalization", *Journal of Personality and Social Psychology*, 57: 749-761.

^{xv} See Ryan, R. M., and Deci, E. L. (2000) "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being", *American Psychologist*, 55: 68-78, 70.

^{xvi} Grolnick, W. S., Deci, E. L., and Ryan, R. M. (1997) "Internalization with the family". In J. E. Grusec and L. Kuczynski (Eds) *Parenting and Children's Internalization of Values: A handbook of contemporary theory* (New York: Wiley): 135-161.

^{xvii} Williams, G. C., Grow, V. M., Freedman, Z., Ryan, R. M., and Deci, E. L. (1996) "Motivational predictors of weight-loss and weight-loss maintenance", *Journal of Personality and Social Psychology*, 70: 115-126.

^{xviii} See respectively, Williams, G. C., Rodin, G. C., Ryan, R. M., Grolnick, W. S., and Deci, E. L. (1998) "Autonomous regulation and long-term medication adherence in adult outpatients", *Health Psychology*, 17: 269-276; and Curry, S., Wagner, E. H., and Grothaus, L. C. (1991) "Evaluation of intrinsic and extrinsic motivation interventions with a self-help cessation program", *Journal of Consulting and Clinical Psychology*, 59: 318-324.

^{xix} Deci, E. L., Connell, J. P., and Ryan, R. M. (1989) "Self-determination in a work organization", *Journal of Applied Psychology*, 74: 580-590.

^{xx} Baard, P. P., Deci, E. L., and Ryan, R. M. (1998) "Intrinsic need satisfaction: A motivational basis of performance and well-being in work settings". Unpublished manuscript, Fordham University.