

When No One's Watching: The Psychology of Self-Motivation for Safety

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Introduction

At times, most people need an external accountability intervention to keep them motivated. In the work world, these include time sheets, overtime compensation records, peer-to-peer behavioral observations, public posting of performance indicators, group and individual feedback meetings, and performance appraisals. Psychologists call these “extrinsic motivators,” and managers use them to keep employees on track.

However, sometimes people develop self-motivation within the context of an extrinsic motivation system. In other words, it's possible to establish conditions that facilitate self-accountability and self-motivation. This paper presents evidence-based ways to make this happen in a work culture, as gleaned from research in the behavioral and social sciences. This is the theme of the author's second narrative coauthored by Bob Veazie, “When no one's watching: Living and leading self-motivation.”¹

Self-Motivation for Safety

Without safety regulations, policies, and external accountability systems, many more workers would get hurt or killed. Employers and safety leaders need extrinsic controls to hold people accountable to perform safe behavior and avoid at-risk behavior. Why? Because the desired safe behaviors are relatively inconvenient, uncomfortable, and inefficient. And, the soon, certain, positive consequences (or intrinsic reinforcers) of at-risk behavior often over-power one's self-motivation to be as safe as possible.

Here's the key question. What can we do to increase rather than impede the self-motivation needed to perform behaviors not intrinsically reinforced by soon, certain, and positive consequences? Practical answers can be derived from behavioral science, especially research conducted by Edward Deci and Richard Ryan.²

Human Needs and Self-Motivation

Deci and Ryan affirm we have three basic psychological needs, and when these needs are satisfied, we are self-motivated. Specifically, self-motivation is supported by conditions that facilitate fulfillment of our needs for autonomy, relatedness, and competence. According to Deci, “self-motivation, rather than external (or extrinsic) motivation, is at the heart of creativity, responsibility, healthy behavior, and lasting change.”³

Autonomy

Autonomy is the condition or quality of being self-governing or having personal control. Previously, the author has described this condition as a person state related to one's propensity to go beyond the call of duty and actively care for the safety and health of others.⁴ Autonomous behavior is self-initiated, self-endorsed, and authentic. It reflects one's true values and intentions. Geller and Veazie¹ refer to this attribute as "choice," and there is plenty of research showing that people are more self-motivated when they have opportunities to choose among action alternatives.⁵

Early Laboratory Research. More than 30 years ago when I was conducting research in cognitive science, I conducted a very simple experiment and obtained very simple results. The implications of the findings, however, are relevant to self-motivation in numerous situations. Half of the 40 subjects in this experiment were shown a list of five three-letter words (i.e., cat, hat, mat, rat, bat) and asked to select one. Then, after a warning tone, the selected word was presented on a screen in front of the subject, and he or she pressed a micro-switch as fast as possible after seeing the word.

The latency in milliseconds between the presentation of the word and the subject's response was a measure of simple reaction time. This sequence of warning signal, word presentation, and subject reaction occurred for 25 trials. If a subject reacted before the stimulus word was presented, the reaction time was not counted, and the trial was repeated. The experimental session took less than 15 minutes per subject.

The word selected by a particular subject was used as the presentation stimulus for the next subject. Thus, this subject did not have the opportunity to choose the stimulus word. As a result, the word choices of 20 subjects were assigned (without choice) to 20 other subjects. Therefore, this simple experiment had two conditions – a *choice* condition (in which subjects chose a three-letter word for their stimulus) and an *assigned* condition (in which subjects were assigned the stimulus word selected by the previous subject). To the author's surprise, the mean reactions of subjects in the choice group were significantly faster than those of subjects in the assigned group.

Although these results were explained by presuming the opportunity to choose their stimulus word increased the motivation of the subjects to perform in the reaction time experiment, the large group differences were unexpected. How could the simple choice of a three-letter word motivate faster responding in a simple reaction-time experiment? In fact, because I did not feel confident in the simple motivational explanation for these surprising results, I did not pursue publication of these data in a professional research journal. Only years later did I appreciate the real-world ramifications of these findings.

From Laboratory to Classroom. About a year after the simple reaction time experiment described above, the author tested the theory of choice as a motivator in the college classroom. I was teaching two sections of social psychology; one at 8:00 a.m. Monday, Wednesday, and Friday, and the other at 11:00 a.m. on these same days. There were about 75 students in each class. Instead of distributing a pre-prepared syllabus with weekly assignments on the first day of classes, I distributed only a general outline of the course which introduced the textbook, the course objectives, and the basic criteria for assigning grades (i.e., a quiz on each textbook chapter and a comprehensive final exam on classroom lectures, discussions, and demonstrations).

In an open discussion and voting process, the 8:00 class was given the opportunity to choose the order in which the ten textbook chapters would be read for homework and discussed in class. They could also submit multiple-choice questions for me to consider using for the ten chapter quizzes and hand in short-answer and discussion questions for possible application on the final exam. The 11:00 class received the order of textbook chapters selected previously by the 8:00 class, and this class was not given an opportunity to submit quiz or exam questions.

Thus, I derived *choice* and *assigned* classroom conditions analogous to the two reaction-time groups I had studied one year earlier. Two of my undergraduate research assistants attended each of these classes, posing as regular students, and systematically counted the frequency of behaviors reflecting class participation. These observers did not know about my intentional choice vs. assigned manipulations.

From the day the students in my 8:00 class voted on the textbook assignments, this class seemed more lively than the later 11:00 class. My perception was verified by the participation records of the two classroom observers. Furthermore, the ten quiz grades, final-exam scores, and my teaching-evaluation scores from standard forms distributed during the last class period were significantly higher in the “choice” class than the “assigned” class. (Although several students from the 8:00 class submitted potential quiz and final-exam questions, none were actually used. Each class received the same quizzes and final exam, developed by the author.)

There are several possible reasons for the group differences, but I’m convinced the “choice” versus “assigned” manipulation was a critical factor. I believe the initial opportunity to choose reading assignments increased students’ motivation and class participation and this extra motivation and involvement fed on itself and led to more involvement, choice, self-motivation and learning. The students’ attitudes toward the class improved as a result of feeling more “in control” of the situation rather than “controlled.”

It’s likely the “choice” opportunities in the 8:00 class were especially powerful because they were so different than the traditional top-down classroom atmosphere, as typified by the organization of my 11:00 class. In other words, the contrast of the “choice” class with the students’ other courses made the “choice” opportunities in my 8:00 class especially salient, meaningful, and motivational.

A Corporate Safety Example. A decade after my laboratory and classroom research that showed the self-motivating impact of *choice*, I visited a chemical facility of 350 employees that exemplifies the power of choice to impact safety. The employees had initiated an actively-caring and behavior-focused observation, feedback, and coaching process in 1992, and had reaped amazing safety benefits for their efforts. In 1994, for example, 98% of the workforce had participated in behavioral observation and feedback sessions, documenting a total of 3,350 coaching sessions for the year. A total of 51,408 behaviors were safe and 4,389 were at-risk.

Such comprehensive employee involvement in a behavioral observation and feedback process led to remarkable outcomes. At the start of their process in 1992, the plant safety record was quite good (i.e., 13 OSHA recordables for a TRIR of 4.11). They improved to 5 OSHA recordables in 1993 (TRIR = 1.60), and in 1994 they had the best safety performance among several plants in their company with only one OSHA recordable (TRIR = 0.35).

I’ve seen numerous companies improve their safety performance substantially with a process based on the principles of people-based safety⁴, but this plant holds the record for efficiency in getting everyone involved and in obtaining exceptional results. I’m convinced a key factor in this organization’s outstanding success was the employees’ “choice” in the development, implementation, and maintenance of the process. The employees owned their behavioral observation and feedback process from the start because they applied behavior-based principles *their way*. Here’s what I mean.

There is no best way to implement behavior-based or people-based safety. Rather the principles and procedures from behavioral science need to be customized to fit the relevant work culture. The most efficient way to make this happen is to involve the target population in the customization process. At this facility, the entire workforce learned the behavioral science principles by participating in ten, one-hour small-group sessions spaced over a six-month period.

These education/training sessions were facilitated by other employees who had received more intensive training in people-based safety. At these group sessions, employees discussed specific strategies for implementing a plant-wide behavioral monitoring and coaching process, and they entertained ways to overcome barriers to total participation and sustain the process over the long term. They designed a process which included employee choice at its very core. Although some specifics of the process have changed since its inception in 1992, the choice aspect has remained a constant.

From the start, employees scheduled regular behavioral observation and feedback sessions with two other employees (i.e., observers). That is, they selected the task, day and time for the coaching session, as well as two individuals to observe their performance and give them immediate and specific feedback regarding incidences of safe and at-risk behaviors. Employees chose their observers (and coaches) from *anyone* in the plant. At the start of their process the number of volunteer safety coaches was limited (including only 30% of the workforce), but today everyone in the workforce is a potential safety coach. Personal choice facilitated involvement, ownership, and trust in the process.

At first, some employees did not have complete trust in the process and resisted active participation. Some tried to “beat the system” by scheduling their observation and feedback sessions at inactive times when the probability of an at-risk behavior was minimal (i.e., while watching a monitor or completing paperwork). And most employees were certainly “on their toes” when the observers arrived at the scheduled times. At the same time, those observed were optimally receptive to constructive feedback and advice from the observers they had selected. Many people (whether observing or being observed) were surprised that numerous at-risk behaviors occurred in situations where employees knew the safe operating procedures and knew they were being observed for the occurrence of at-risk behaviors.

It wasn't long before most employees at this facility began scheduling their coaching sessions during active times when the probability of an at-risk behavior or injury is highest. Frequently, the observed individual would point out an at-risk behavior necessitated by the particular work environment or procedure (e.g., a difficult-to-reach valve, a hose-checking procedure too cumbersome for one auditor, a walking surface made slippery by an equipment leak, a difficult-to-adjust machine guard). Thus, many employees have chosen to use their observation and feedback process to demonstrate that some at-risk behaviors are facilitated or necessitated by equipment design or maintenance, and/or by environmental conditions or operating procedures. This involvement has often led to a beneficial change in environmental conditions or operations procedures.

We've All Been There. Readers need only reflect on their own life circumstances to realize how a perception of choice or personal control increases their self-motivation, involvement, and commitment. We are not always in control of the critical events of ongoing circumstances, and thus we've experienced the frustration, discomfort, and distress of being at the mercy of environmental circumstances or other people's decisions. And we've certainly experienced the pleasure of having alternatives to choose from and feeling in control of those factors critical for success. How much sweeter is the taste of success when we can attribute the achievement to our own choices.

Bottom Line. The message is clear. Give people opportunities to choose safety procedures consistent with the right principles, and the result will be increased self-motivation, engagement, and ownership. This may require relinquishing some top-down control, abandoning a desire for a “quick-fix,” changing from focusing on outcomes to recognizing process achievements, and giving people opportunities to choose, evaluate, and refine their means to achieve the ends. The result: More people doing the right things for safety when no one's watching.

Competence

Several researchers of human motivation have proposed that people naturally enjoy being able to solve problems and successfully complete worthwhile tasks.⁶ In their view, people are self-motivated to learn, to explore possibilities, to understand what is going on, and to participate in achieving worthwhile goals. The label for this fundamental human motive is *competence*. In Deci's words, "all of us are striving for mastery, for affirmations of our own competence."⁷

Motivation psychologists assume the desire for competence is self-initiating and self-rewarding. Behavior that increases feelings of competence is self-directed and does not need extrinsic or extra reinforcement to keep it going. In this case, feeling competent to do worthwhile work motivates continued effort. In other words, when people feel more successful or competent their self-motivation increases. As one behavioral scientist put it, "People are not successful because they are motivated; they are motivated because they have been successful."⁸

The Power of Feedback. So how do we know we are competent at something? How do we know our competence makes a valuable difference? You know the answer -- feedback. Feedback about our ongoing behavior tells us how we are doing and enables us to do better. We hone our skills through practice and behavior-focused feedback. Sometimes this process feedback comes naturally, like when we see our behavior produce a desired result. But, often behavioral feedback requires careful and systematic observation by another individual -- a trainer or coach -- who later communicates his or her findings to the performer. In each case, feedback enables the development of competence and self-motivation.

Outcome feedback supports the need for competence further by showing desirable effects of participation. For example, a display of the percentage of safe behaviors among a work group indicates whether an interpersonal coaching process is working. When these percentages are graphed daily or weekly, a work team can track their progress at improving their interpersonal coaching competence.

Objective evidence of a reduction in injuries, property damage, or "near hit" reports is, of course, the most rewarding feedback we can get in safety. This is the ultimate outcome feedback we work to achieve. Unfortunately, this feedback does not change rapidly enough to inform our competence. Also, this feedback can be invalid due to under-reporting. That's why we need ongoing behavior-based feedback to continuously build our sense of competence and fuel our self-motivation.

Techniques for delivering and receiving supportive and corrective feedback to individuals and groups are documented elsewhere⁹. Here I only want to drive home the point that feedback is essential to fulfill a basic human need -- the need for competence. And helping people satisfy this need increases their self-motivation to perform the relevant behavior. However, feedback regarding an organization's safety performance (e.g., TRIR) does not reflect an employee's choices or competence and is ineffective. Only behavior-focused feedback, customized for the recipient, can enhance one's perception of personal control and competence, and thus self-motivation.

Is Feedback Reinforcing? The author has heard some behavior-based safety consultants argue that feedback is not a reinforcer. Technically, a reinforcer is a behavioral consequence that increases the frequency of the behavior it follows. So, if behavior does not improve after feedback then the feedback was not a reinforcer. Likewise, praise, reprimands, bonus pay, or frequent flyer points are not reinforcers when they don't increase the frequency of the behavior they target; and they often don't.

Consider, however, that feedback delivered well, whether supportive, corrective or both, increases one's perception of competence and self-motivation. It's not a payoff for doing the right thing. Rather, it's objective information a person uses to feel competent or to learn how to become more competent. There perhaps is no other consequence with greater potential to improve competence, self-motivation, and performance and thereby become a positive reinforcer.

A Paradigm Shift. This discussion of feedback, competence, and self-motivation calls for a paradigm shift -- a change in perspective about participation in safety efforts. Instead of calling on guilt or sacrifice to get people involved in procedures to eliminate hazards or decrease at-risk behavior, we should assume people are naturally self-motivated to make beneficial differences. People hate feeling incompetent or helpless. They want to learn, to discover, to become more proficient at worthwhile tasks. People want opportunities to ask questions, to study pertinent material, to work with people who know more than they, and to receive feedback that can increase their competence and subsequent self-motivation.

Thus, participation in a safety-related process is not a thankless job requiring self-sacrifice or a special degree of altruism. Safety participation puts people in control of the environmental and human factors that can cause serious injury or death. Safety participation avoids one of the most aversive human states – the feeling of incompetence or helplessness. Participation in an effective safety process provides opportunities to satisfy a basic human need – the need for competence.⁶ The effective and frequent delivery of behavior-based feedback provides a mechanism for improving the quality of safety participation, as well as cultivating feelings of competence and self-motivation throughout a work culture.

Relatedness

The innate need for *relatedness* reflects “the need to love and be loved, to care and be cared for...to feel included, to feel related.”¹⁰ This is analogous to the state of belongingness, which the author has previously claimed is another person state influencing one’s propensity to actively caring for the safety and welfare of others.¹¹ However, Geller and Veazie¹ use the term *community* to reflect this state because the concept of community is more encompassing than relatedness or belongingness.

As explicated by Peter Block¹² and M. Scott Peck¹³, a community perspective reflects systems thinking and interdependency beyond the confines of family and work teams. It’s an actively-caring mindset for human kind in general – an interconnectedness with others that transcends political differences and prejudices, and profoundly respects and appreciates diversity.

Systems Thinking and Interdependence. In his best sellers on total quality management, *Out of The Crisis* and *The New Economics*, W. Edwards Deming tells us to focus our efforts on optimizing the system.¹⁴ Peter Senge stresses that “systems thinking” is the Fifth Discipline, and key to continuous improvement.¹⁵ And Stephen Covey’s discussion of interdependency, win/win contingencies, and synergy in his popular self-help book, *The Seven habits of Highly Effective People*,¹⁶ are founded on systems thinking and a community perspective. Furthermore, Geller and Veazie propose and explicate in *The Courage Factor* that the amount of courage a person needs to intervene on behalf of another individual decreases as a function of the degree of connectedness between the two people.¹⁷

Thus, developing a community or interdependent spirit in an organization leads to two primary human-performance payoffs: a) individuals become more self-motivated to do the right thing, and b) people are more likely to actively care for the safety and health of others. In their new reality-based narrative, Geller and Veazie¹ illustrate the do’s and don’ts of building an interdependent community perspective among the employees of an organization.

More Paradigm Shifts. A systems or community approach to occupational health and safety implicates a number of paradigm shifts from traditional safety management. Specifically, we need to shift from trying to find one root cause of a “near hit” or injury to considering a number of potential causes from each of three domains – environment, behavior, and person. Additionally, interdependent systems thinking requires a shift from outcome-based measures of safety performance to a more proactive and diagnostic evaluation of process variables within the environment, behavior, and person domains.

Systems thinking enables a useful perspective on basic principles of human motivation, attitude formation, and behavior change. We are inclined to consider causation between activators, behaviors, and consequences to be linear, but systems thinking implicates a circular or spiral perspective. Thus, while an event preceding a behavior may direct it and a particular event following a behavior determines whether it will occur again, it's instructive to realize the consequence for one behavior can serve as the activator for the next behavior. With this perspective, behavior-based feedback can serve as a motivating consequence or a directive activator, depending on when and how it is presented.

The systems perspective of spiral causality and the consistency principle combine to explain how small changes in behavior can result in attitude change, followed by more behavior change and then more desired attitude change, leading eventually to personal commitment and total involvement in the process.¹⁸ Similarly, the notion of spiral causality and the reciprocity principle explain why initial actively caring from a few individuals can result in more and more actively caring from many individuals. This can lead eventually to interdependent work teams regularly actively caring for the safety of each other with a win/win interdependent attitude and a proactive vision. In the end we have safety-focused synergism, and it all started with systems thinking and a community perspective with regard to keeping people safe and injury free.

How to Increase Self-Motivation

In their new book, Geller and Veazie¹ use the C-words: Choice, Competence, and Community, as labels for the three evidence-based person states that determine self-motivation. Interpersonal and environmental conditions that enhance these states, presumed to be innate needs by some psychologists,¹⁹ increase self-motivation. Motivation researchers have offered the following ten guidelines for increasing self-motivation by affecting one or more of the three person states (or needs) defined above. Geller and Veazie¹ explain each of these with real-world examples related to occupational safety and health.

1. Provide a rationale for behavior that is not naturally reinforcing. Thus, safety regulations should be accompanied with a meaningful explanation.
2. Show empathy by acknowledging “people might not want to do what they are being asked to do.”²⁰ For example, admit the required safety-related behaviors are relatively inconvenient and uncomfortable, but given the reasonable rationale provided, the personal response cost is worthwhile.
3. Use language suggesting minimal external pressure. For example, the common phrase “safety is a condition of employment” reduces the perception of autonomy, whereas the slogan “safety is a corporate value we can live with” implies personal authenticity and interpersonal relatedness.
4. Provide opportunities for choice. The term “participative management” means employees have choice during the planning, execution, and evaluation of their jobs.
5. Set autonomy-supportive rules by soliciting input from those affected by these regulations.²⁰
6. Customize process and outcome goals with individuals and work teams. The most effective goals are SMARTS – **S**=Specific, **M**=Motivational, **A**=Achievable, **R**=Relevant, **T**=Trackable, and **S**=Shared.¹⁸
7. Administer rewards and recognition programs to express appreciation for demonstrations of competence, but limit use of “if-then” incentive/reward programs.
8. Communicate to boost a sense of competence and correct with care. Be non-directive, actively-listen to excuses, and emphasize the positive over the negative.
9. To increase a sense of community, increase team-building discussions, group goal-setting and feedback sessions, as well as group celebrations for both process and outcome achievements.

10. Implement strategies for increasing interpersonal trust throughout the workplace. The following C-words capture the essence of building both trust and community: Communication, Caring, Candor, Consistency, Commitment, Consensus, and Character.

Finally, the following 20 leadership lessons reflect the essence of activating and sustaining self-motivation among individuals and groups. These are explicated with real-world experiences and practical interventions in the narrative: *When No One's Watching: Living and leading self-motivation*.¹

- **Lesson 1:** What you do when no one's watching or holding you accountable is self-determined or self-motivated.
- **Lesson 2:** People feel empowered when they answer "yes" to three questions: Can you do it? Will it work? and Is it worth it?
- **Lesson 3:** Transactional leaders hold people accountable for compliance; Transformational leaders inspire people to be self-accountable or self-motivated.
- **Lesson 4:** Employees feel included and self-motivated when they believe they: 1) are heard, 2) contribute, 3) belong, 4) achieve, 5) choose, 6) are appreciated, and 7) feel empowered.
- **Lesson 5:** A community spirit extends beyond one's work team to the organizational system as a whole.
- **Lesson 6:** Interpersonal communication comes in five distinct forms: 1) Relationship, 2) Possibility, 3) Action, 4) Opportunity, and 5) Follow-up.
- **Lesson 7:** Authentic inclusion occurs when input for important group or organizational decisions are solicited from all participants.
- **Lesson 8:** A financial bonus based on organization performance rather than individual behavior can become an entitlement and have no impact on what people do.
- **Lesson 9:** Performance appraisals improve behavior when they occur periodically and include goal setting and feedback customized for the individual.
- **Lesson 10:** When the values of organizations and individuals align, relevant behavior is predisposed to be self-motivated.
- **Lesson 11:** People with empathy don't judge others until they understand completely the other person's intentions and perceptions.
- **Lesson 12:** Process goals are set for the behaviors needed to accomplish an outcome goal and are Specific, Motivational, Achievable, Relevant, Trackable and Shared.
- **Lesson 13:** When people believe they are competent at worthwhile tasks, they are inclined to be self-motivated.
- **Lesson 14:** Equity in a relationship occurs when each person perceives the participants' input/output ratios are equivalent.
- **Lesson 15:** Self-motivation occurs when the natural or intrinsic consequences of an action are reinforcing.
- **Lesson 16:** Continuous self-improvement starts with a daily behavior-based commitment, then noticing opportunities to perform the target behavior, self-congratulating occurrences of that behavior, and finally reflecting on relevant success and room for improvement.

- **Lesson 17:** A ranking system that promotes win/lose over win/win thinking and acting does more harm than good.
- **Lesson 18:** Effective leaders have the *courage* to ask for candid feedback and the *humility* to accept and apply suggestions for reasonable change.
- **Lesson 19:** Continuous improvement requires the courage and humility to change even when things are going well.
- **Lesson 20:** Resolve crucial interpersonal conflicts, apologize, and give thanks as soon as possible, because you might lose the opportunity later.

Conclusion

An injury-free culture requires people to do the right things for safety when working and driving alone with no one watching to hold them accountable. Such self-accountability requires self-motivation. This research-based paper introduced practical ways to facilitate the self-motivation needed to achieve and sustain an injury-free workplace. The new book by Geller and Veazie¹, referred to several times in this presentation, offers a number of real-world explications of the self-motivation principles and leadership lessons reviewed here, as well as practical ways to apply these principles and lessons in order to enhance self-motivation for safety among individuals and groups.

Endnotes

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