



Two engines, one journey: How inner drive and outside rewards guide what we do

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Abstract

Why do people sometimes finish a marathon despite no prize money, yet refuse to lift a finger for a paying job? The answer sits at the crossroads of two different kinds of drive: what comes from inside us versus what comes from the outside world. This paper walks through the main theories that explain how inner motivation (doing something because it feels good or interesting) and outer motivation (doing something for a reward or to avoid trouble) work together or against each other. I look closely at Self-Determination Theory, the overjustification effect, and older behaviorist ideas. The main argument is simple: whether rewards hurt or help inner drive depends almost entirely on how a person interprets the reward. Does it feel like someone is trying to control them, or does it feel like useful information about how well they are doing? I also put forward a basic framework to predict what will happen in schools, workplaces, and therapy rooms. The takeaway is that most people do their best when both kinds of motivation are present, but only when the outside rewards leave room for personal choice and a sense of growing skill.

Keywords: Inner motivation, outer motivation, rewards, overjustification, autonomy, self-determination

Introduction

A Story about Two Painters

Imagine two artists. One spends every weekend in her garage painting landscapes. Nobody sees the work. She never sells a single piece. She paints because the act of mixing colors and filling a blank space settles something in her mind. Now imagine another artist. He paints only on commission. Each stroke comes with a price tag in his head. He does excellent work, but when the check clears, he puts down the brush until the next buyer calls.

Neither artist is wrong. But their behavior runs on different fuel. The first runs on what psychologists call inner motivation. The second runs on outer motivation. For the last fifty years, researchers have argued about which fuel works better, whether they mix well, and how to use each one without causing damage.

This paper does three things. First, I explain where these two ideas came from and how they changed over time. Second, I walk through the strongest evidence about what happens when inner and outer drives meet. Third, I offer a simple model that helps predict when outside rewards will help, when they will hurt, and when they will do nothing at all.

Defining the Two Engines

1. Inner Motivation

Inner motivation is straightforward. You do something because the doing itself feels worthwhile. There is no separate payoff waiting at the finish line. A kid who reads comic books under the blanket with a flashlight is not reading for a grade or a gold star. The pleasure is in the story and the secret act of staying up late. A runner who jogs at 5 AM in the rain is not chasing a trophy. The run is the point.

Researchers have tied inner motivation to three basic needs (Ryan & Deci, 2000) [6]. First, the need to feel able—to get better at something and notice yourself improving. Second, the need to feel in charge of your own actions—not pushed around. Third, the need to feel connected to other people,

though this matters more for some activities than others. When these three needs are met, inner motivation tends to grow on its own, like a plant in good soil.

2. Outer Motivation

Outer motivation is also straightforward. You do something to get something else. The reward might be money, praise, a good grade, a promotion, or simply avoiding a scolding. The behavior is a tool. You hand in the report to get paid. You clean the kitchen to stop your roommate from complaining. You study for the exam to avoid failing the class.

But here is a wrinkle that many people miss. Outer motivation comes in different shades (Deci & Ryan, 1985) [3]. The weakest shade is pure compliance. You do the thing because someone with power told you to, and you will stop the moment they look away. A stronger shade is when you have taken an outside rule and made it your own. You go to the gym not because your doctor said so but because you have decided that being healthy is part of who you are. The behavior still aims at an outside result (better health numbers), but it does not feel like being pushed. That shade, sometimes called integrated regulation, looks and acts a lot like inner motivation even though it started from the outside.

The Big Fight: Do Rewards Ruin Everything?

1. The Evidence for Harm

The most famous challenge to using rewards came from a set of studies in the early 1970s. In one well-known experiment (Lepper, Greene, & Nisbett, 1973) [4], researchers watched nursery school children who already liked to draw. They split the kids into three groups. One group was told they would get a nice certificate with a gold star and a ribbon if they kept drawing. A second group got the same certificate and ribbon but only after they finished, with no warning ahead of time. A third group got nothing at all.

A few weeks later, the researchers left out drawing materials during free play and watched what happened. The children

who had been promised the reward beforehand drew much less than the other two groups. The reward had turned something playful into something transactional. The kids stopped thinking "I draw because I like it" and started thinking "I draw to get the prize." When the prize went away, the reason to draw went away too.

Psychologists call this the overjustification effect. You offer an outside reason for doing something that already had enough inside reasons, and the inside reasons shrink or disappear. The reward does not add to the total motivation. It replaces one kind of motivation with another, weaker kind.

2. The Evidence for Help

But the story is not that simple. Other studies found that rewards do not always kill inner motivation. In fact, sometimes they feed it. The difference comes down to how the reward feels to the person getting it (Deci, 1971) ^[2].

Imagine two versions of the same situation. In version one, your boss says, "Finish this report by Friday, or I am cutting your bonus." That feels like control. Your brain registers pressure, not choice. In version two, your boss says, "I noticed you finished the last report early and did a great job on the data section. Here is a bonus to show appreciation. No strings attached." That feels like information. The bonus tells you that you are good at something. Your sense of competence goes up. And because there was no threat or demand, your sense of being in charge stays intact.

Rewards that carry information about your growing skill tend to support inner motivation. Rewards that carry control tend to crush it. This explains why a coach's sincere "Nice work today" usually helps, while a cash bribe for every basket scored usually hurts.

3. The Messy Middle

So which is it? Does outer motivation hurt or help? The honest answer is that it depends on at least four things.

First, was the person already interested? If someone already loves a task, throwing rewards at them is risky. If they hate the task or feel nothing at all, a well-placed reward might get them started without damaging anything because there was nothing to damage.

Second, was the reward expected or a surprise? Surprise rewards rarely cause the overjustification effect because the person did not start the activity thinking about the payoff.

Third, was the reward tied to doing the task or to doing it well? Rewards for simply showing up tend to feel controlling. Rewards for doing excellent work can feel like recognition.

Fourth, what kind of relationship exists between the giver and the receiver? A warm, trusted teacher or manager can give a reward that feels like support. A cold, distant authority figure giving the same reward makes it feel like a leash.

A Simple Framework

Based on the theories and evidence above, I propose a bare-bones framework to sort out what will happen in different situations. The framework uses two questions.

Question one: Does the person feel in charge of their own actions? (Psychologists say autonomy.)

Question two: Does the person feel like they are getting better at the task? (Psychologists say competence.)

Cross these two questions, and you get four common situations.

Feels in charge Feels pushed around

Feels skilled Situation A (The Flow Zone): Everything works. Inner motivation is high. Outer rewards are unnecessary and might even get in the way.

Situation B (The Grind Zone): The person does the work but resents it. Outer rewards keep them going, but they will quit as soon as the rewards stop.

Feels unskilled Situation C (The Lost Zone): The person wants to try but keeps failing. Neither inner nor outer motivation lasts long because the task feels hopeless.

Situation D (The Checkout Zone): The person has given up. They do not care about the task or any reward. This is the hardest place to work from.

The framework makes two useful predictions. First, moving someone from the bottom row to the top row (helping them feel skilled) does more good than any reward could do on its own. Second, adding outer rewards to someone already in Situation A is like pouring water into a full cup. It spills over and makes a mess.

What This Looks Like in Real Life

1. Classrooms

Teachers hand out grades, gold stars, pizza parties for good behavior, and detentions for bad behavior. Most of these are outer motivators. For a student who already loves reading novels, turning every book into a graded assignment can kill the love. That student moves from Situation A to Situation B. They still read, but only for the grade, and they stop reading for pleasure at home.

For a student who hates math and feels hopeless (Situation D), a grade alone will not help. That student needs to first feel a small win—some sign that they can get better. A teacher who says, "You solved three out of ten problems yesterday and five out of ten today—look at that climb," is giving informational feedback. That can move the student up to Situation C, then slowly to Situation A over weeks or months.

2. Workplaces

Offices love bonuses, commissions, and performance rankings. These work fine for boring, repetitive jobs. A factory worker putting the same screw into the same hole all day does not need inner motivation. They need a fair paycheck.

But for jobs that require thinking, creativity, or problem-solving, big contingent bonuses often backfire (Ariely, Gneezy, Loewenstein, & Mazar, 2009) ^[1]. A software developer given a huge bonus for finishing a project in half the normal time will likely cut corners, ignore creative solutions, and burn out. The pressure kills the part of the brain that does good work. In the framework above, the developer gets pushed from Situation A down to Situation B.

Smart managers save big bonuses for simple tasks and use praise, choice over how to work, and opportunities to learn new skills for complex tasks.

3. Therapy and Health Changes

Quitting smoking, losing weight, or sticking to medication—none of these are fun. Most people have zero inner motivation to do them. So therapists cannot rely on inner drive. Instead, good therapy helps a person internalize an outside goal (Miller & Rollnick, 2012) ^[5]. You start by taking a pill because your doctor told you to (pure outer compliance). Over time, you notice you feel better, you understand why the pill works, and you decide that staying healthy matters to you. The behavior has not changed, but the reason has moved from the outside to the inside. In the framework, the person has moved from Situation B or D toward Situation A.

Where the Theory Falls Short

No theory is perfect, and the inner-versus-outer framework has at least three blind spots.

First, the problem of defining "inner." If I feel good because I solved a hard problem, is that inner motivation? Or am I just chasing the good feeling, which is itself an outside reward (pleasure) that happens to come from inside my head? Some researchers argue that all motivation is ultimately about chasing positive feelings and avoiding negative ones. If that is true, then the whole distinction between inner and outer collapses.

Second, culture matters. Most of the studies cited in this paper were done in the United States, Canada, and Western Europe. These cultures put a high value on personal choice and individual desire. But in many East Asian, Latin American, and African cultures, people feel perfectly fine doing things out of duty or respect for authority. They do not experience that as "being controlled." They experience it as being a good person (Ryan & Deci, 2017) ^[7]. The same external demand might feel crushing to a New Yorker but neutral or even positive to someone in Seoul.

Third, time is missing from the framework. The simple model I offered earlier describes a moment in time. But real life stretches across weeks and years. A reward that hurts inner motivation today might not matter tomorrow. Conversely, a reward that starts as controlling might, over a long period with a good manager or teacher, turn into something that feels like support. The framework needs a clock.

Putting It All Together

After walking through the theories, the experiments, the exceptions, and the criticisms, what can we say with confidence?

Here are five conclusions that the evidence supports fairly well.

1. Inner motivation is real and powerful. People do things for no visible payoff. Ignoring this fact leads to bad predictions about behavior.
2. Outer motivation is also real and powerful. Rewards and punishments change what people do. Ignoring this fact is equally foolish.
3. The two kinds of motivation can clash. When you add a controlling reward to an activity someone already loves, the love often shrinks. This is the overjustification effect, and it is not just a lab trick. It happens in schools, homes, and offices every day.
4. The two kinds of motivation can also work together. A reward that feels like useful feedback, that comes as a

surprise, or that acknowledges genuine skill can support inner motivation instead of killing it.

5. The best environments are those that feed a person's sense of skill and choice. Whether you are a parent, a teacher, a boss, or a therapist, your first job is to help people feel capable and autonomous. From that foundation, you can use outside rewards carefully, like a spice rather than the main ingredient.

Closing Thought

The two artists from the beginning of this paper are not opposites. They are two points on a long line. The painter who works only for money could, under different conditions, rediscover the joy of paint for its own sake. And the painter who refuses to sell her work could, if the right buyer came along with genuine appreciation and no demands, take the money without losing the love.

Motivation is not a war between good inner drives and bad outer ones. It is a conversation. Our job, as people who want to understand behavior or change it, is to learn the language of that conversation. When we speak it well, rewards support growth. When we speak it poorly, rewards do damage. The difference is not in the reward itself. The difference is in the story the person tells themselves about why they are doing what they do.

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