

Overjustification Learning

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1. Core Definition and Mechanism

Overjustification learning refers to the phenomenon where an individual's intrinsic motivation to perform a task is diminished when an extrinsic reward is introduced for engaging in that same task. This concept is closely related to the Overjustification Effect, a psychological principle explaining how an expected external incentive can decrease a person's intrinsic motivation to perform a task. Initially, the individual may find the activity inherently enjoyable or stimulating, performing it for its own sake. However, once an external reward such as money, prizes, recognition, or grades becomes the primary focus for completing the task, the perception of the activity shifts from an intrinsically rewarding pursuit to a means to an end. The very act of engaging with the task becomes less about personal interest and more about securing the promised compensation.

The mechanism underlying overjustification learning suggests that individuals attribute their behavior to the most salient cause. When no external reward is present, a person performing a task will likely attribute their engagement to intrinsic factors, such as enjoyment, curiosity, or a desire for mastery. This internal attribution strengthens their intrinsic motivation. However, when a clear external reward is introduced, the individual's self-perception can shift. They begin to attribute their actions not to their internal interest but to the external incentive. This re-attribution process, often subconscious, undermines the internal reasons for engagement, leading to a decrease in the inherent satisfaction derived from the activity itself. The presence of the reward "overjustifies" the behavior, overshadowing the internal motives that were once sufficient to initiate and sustain the activity.

Consider, for instance, a child who enjoys drawing purely for the pleasure it brings. If a parent begins to offer money for each drawing completed, the child might initially draw more frequently. However, over time, the act of drawing may become associated with the monetary reward rather than with personal enjoyment. If the reward is subsequently removed, the child might show less interest in drawing than they did before any reward was ever offered, as their intrinsic motivation has been supplanted by the expectation of an external incentive. This shift in motivational focus is the hallmark of overjustification learning, highlighting the delicate balance between intrinsic and extrinsic motivators in shaping behavior and long-term engagement.

2. Theoretical Foundations and Historical Development

The theoretical roots of overjustification learning are deeply embedded in the study of human motivation, particularly in the distinction between intrinsic and extrinsic motivation. Early psychological theories often viewed motivation as a singular continuum, where more motivation,

regardless of its source, was always better. However, research in the 1970s began to challenge this simplistic view, proposing that the nature of motivation significantly impacts behavior and well-being. A pivotal study by Mark Lepper, David Greene, and Richard Nisbett in 1973 provided empirical evidence for the overjustification effect. In their experiment, children who intrinsically enjoyed drawing were divided into groups: one received an unexpected reward for drawing, another received an expected reward, and a control group received no reward. The group that received an expected reward later showed significantly less interest in drawing when rewards were no longer offered, compared to the other two groups. This landmark study demonstrated that expected extrinsic rewards could undermine intrinsic interest.

This phenomenon is often explained through two prominent psychological theories: Self-Perception Theory and Cognitive Evaluation Theory. Self-Perception Theory, proposed by Daryl Bem, posits that individuals infer their attitudes and motivations by observing their own behavior and the circumstances under which it occurs. If a person observes themselves engaging in a task primarily because of an external reward, they are likely to conclude that their motivation for the task is external, thus diminishing any pre-existing intrinsic interest. This re-attribution of motivation happens when the external reward is salient and perceived as the primary cause of the behavior, overshadowing any internal reasons for engagement. The internal question shifts from "I do this because I enjoy it" to "I do this because I get something for it."

Cognitive Evaluation Theory (CET), a sub-theory of Self-Determination Theory developed by Edward Deci and Richard Ryan, offers a more nuanced explanation. CET suggests that extrinsic rewards can affect intrinsic motivation in two ways: through their controlling aspect and their informational aspect. If a reward is perceived as controlling an individual's behavior, it can diminish their sense of autonomy and subsequently reduce intrinsic motivation. For example, being told "you must finish this to get the reward" feels controlling. Conversely, if a reward is perceived as providing positive feedback about competence (e.g., "you did a great job, here's a bonus for your excellent work"), it can enhance intrinsic motivation by bolstering feelings of mastery. The overjustification effect occurs when the controlling aspect of the reward dominates its informational aspect, leading to a decrease in perceived autonomy and, consequently, in intrinsic motivation for the task.

3. The Role of Extrinsic Rewards

Extrinsic rewards are external incentives provided contingent upon the performance of a task or achievement of a specific outcome. These can take numerous forms, including tangible items such as money, prizes, candy, or certificates, and intangible forms like verbal praise, positive feedback, recognition, or grades. The effectiveness and impact of these rewards on intrinsic motivation are not uniform, but rather depend on several factors, including their expectedness, salience, and perceived contingency. Rewards that are expected and directly contingent upon performance are

more likely to trigger the overjustification effect, as they become the explicit reason for engaging in the activity. When individuals anticipate a reward, their focus often shifts from the inherent enjoyment of the task to the acquisition of the reward itself.

However, not all extrinsic rewards uniformly undermine intrinsic motivation. Rewards that are unexpected, or those that are not directly contingent on performance but rather delivered as a bonus or a token of appreciation, are less likely to diminish intrinsic interest. For example, receiving an unexpected bonus for excellent work might enhance feelings of competence and appreciation, thereby boosting intrinsic motivation, rather than undermining it. Similarly, verbal praise, when delivered as sincere positive feedback that conveys competence, can reinforce intrinsic motivation by satisfying the psychological need for mastery and accomplishment, without necessarily undermining autonomy. The key distinction lies in whether the reward is perceived as a controller of behavior or as an indicator of competence and achievement.

Furthermore, the nature of the task itself plays a crucial role. For tasks that are inherently uninteresting or undesirable, extrinsic rewards can be highly effective in initiating and sustaining engagement. In such cases, there is little intrinsic motivation to undermine, and the reward serves as a necessary incentive to ensure the task is completed. For example, paying someone to perform a monotonous or unpleasant chore is unlikely to decrease their intrinsic motivation for that chore, as it was likely low to begin with. The controversy and concern surrounding overjustification learning primarily arise when rewards are applied to tasks that individuals might otherwise find enjoyable or meaningful, thereby risking the erosion of valuable intrinsic interest.

4. Impact on Intrinsic Motivation

The most significant and debated consequence of overjustification learning is its potential to significantly reduce an individual's intrinsic motivation. Intrinsic motivation is characterized by engaging in an activity for the inherent satisfaction it provides, driven by internal desires such as curiosity, challenge, or the pursuit of mastery. It is often associated with higher quality learning, greater persistence, creativity, and overall well-being. When extrinsic rewards are introduced for tasks that were previously intrinsically motivating, individuals may begin to perceive their engagement as externally controlled rather than internally driven. This shift can lead to a devaluation of the task itself, transforming it from a source of personal enjoyment into a mere means to acquire an external benefit. The long-term implication is a decreased likelihood of engaging in the activity once the external reward is no longer available.

This undermining effect is particularly concerning in contexts where intrinsic motivation is highly valued, such as education and creative fields. If students are constantly rewarded for learning, they may learn to associate education with external validation (grades, prizes) rather than with the joy of discovery or the development of knowledge for its own sake. Similarly, artists or writers who begin

to create solely for financial gain may find their passion waning and their creative output becoming less authentic. The risk is that the pursuit of external rewards fosters a transactional mindset, where the effort invested is directly proportional to the perceived value of the reward, rather than to the intrinsic value or personal meaning of the activity.

Moreover, the erosion of intrinsic motivation can have broader psychological implications. A robust sense of intrinsic motivation is linked to greater psychological well-being, feelings of autonomy, competence, and relatedness. When individuals feel that their actions are controlled by external forces, it can diminish their sense of personal agency and self-determination. This can lead to decreased engagement, lower satisfaction, and a reduced sense of personal fulfillment in various life domains. Thus, understanding and mitigating the overjustification effect is crucial for fostering environments that cultivate genuine interest, sustained effort, and psychological health.

5. Applications in Education

In educational settings, overjustification learning presents a significant challenge, particularly concerning the motivation of students. Teachers often use external rewards like grades, stickers, candy, or extra playtime to encourage desired behaviors such as completing homework, participating in class, or achieving good test scores. While these incentives can be effective in the short term, especially for tasks students find uninteresting, their indiscriminate use risks undermining students' innate curiosity and love for learning. A child who initially reads books out of genuine interest may begin to read only to earn points for a prize, and if the prize program ends, their reading habit might diminish significantly because their motivation has been externalized.

The educational implications extend beyond simple task completion to the very philosophy of learning. If students are primarily motivated by grades or future career prospects (extrinsic motivators), the intrinsic joy of intellectual discovery, critical thinking, and personal growth can be overshadowed. This can lead to surface-level learning, where students focus on memorizing facts for tests rather than deeply understanding concepts. Educators are therefore faced with the complex task of designing motivational strategies that encourage engagement without inadvertently extinguishing the intrinsic desire to learn. This often involves emphasizing the informational aspect of rewards, such as providing specific, positive feedback that highlights competence, rather than using rewards as controlling incentives.

Effective educational practices informed by overjustification learning principles advocate for strategies that nurture intrinsic motivation. This includes fostering a sense of autonomy by giving students choices, promoting feelings of competence through achievable challenges and constructive feedback, and facilitating relatedness through collaborative learning environments. When rewards are used, they should ideally be unexpected, not directly contingent on performance, or designed to convey information about mastery rather than control behavior. For

example, celebrating effort and improvement with recognition rather than tangible rewards can reinforce positive learning behaviors without undermining internal drive.

6. Applications in the Workplace

The principles of overjustification learning are also highly relevant in the workplace, impacting employee motivation, job satisfaction, and productivity. Employers frequently use extrinsic motivators such as salaries, bonuses, promotions, and public recognition to encourage high performance, motivate employees, and attract talent. While these external incentives are undeniably crucial for attracting and retaining employees, especially substantial ones like a steady paycheck, their application needs careful consideration to avoid inadvertently diminishing intrinsic job satisfaction and engagement. For tasks that are inherently uninteresting or monotonous, monetary rewards are essential and often effective. However, for roles that involve creativity, problem-solving, or require a high degree of intrinsic commitment, the overjustification effect can pose a significant risk.

For example, an employee who genuinely enjoys their work and finds it meaningful may experience a decline in intrinsic satisfaction if a new, performance-based bonus system is implemented that makes the bonus the primary driver of their efforts. Their perception of their work might shift from a fulfilling endeavor to a means of accumulating financial incentives. If the bonus system is later removed or reduced, their engagement and motivation may drop below pre-bonus levels, leading to decreased productivity and job dissatisfaction. This phenomenon highlights the importance of fostering a work environment where employees feel valued, autonomous, and competent, alongside receiving fair compensation.

To mitigate the risks of overjustification learning, organizations often strive to create a balance between extrinsic and intrinsic motivators. This involves not only offering competitive salaries and benefits but also focusing on job design that promotes autonomy, mastery, and purpose. Providing opportunities for professional development, fostering a supportive culture, offering meaningful feedback, and recognizing contributions in ways that affirm competence rather than control behavior can all help sustain and enhance intrinsic motivation. When bonuses or incentives are used, they are often more effective if they are tied to collective team success, unexpected, or presented as recognition for exceptional achievement rather than as a direct payment for routine tasks that employees might otherwise enjoy.

7. Debates, Criticisms, and Nuances

While the overjustification effect is a well-established phenomenon in psychological research, its extent and practical implications remain subjects of ongoing debate and criticism. One key area of discussion revolves around the conditions under which the effect is most likely to occur. Critics

argue that the effect is not universal and is more pronounced in specific experimental settings than in real-world scenarios. For example, unexpected rewards, verbal praise, and rewards that signify competence rather than control are generally less likely to undermine intrinsic motivation, and can even enhance it. The nature of the task itself is also critical; for tasks that are already boring or unpleasant, extrinsic rewards are often necessary and do not diminish an intrinsic motivation that was never present.

Another point of contention concerns the interpretation of "undermining." Some researchers argue that the effect might represent a temporary shift in focus rather than a permanent destruction of intrinsic interest. When extrinsic rewards are removed, intrinsic motivation may eventually recover, especially if the individual has strong prior intrinsic interest. However, proponents of the theory emphasize that even a temporary reduction can have significant negative consequences in educational or professional contexts, potentially leading to decreased engagement, lower quality performance, and a reduced likelihood of pursuing the activity voluntarily in the long run. The critical aspect is the individual's psychological experience and their self-perception of why they are engaging in the task.

Furthermore, the debate extends to the practical application of these findings. While it is generally accepted that relying solely on extrinsic rewards can be detrimental, completely eschewing rewards in contexts like education or the workplace is often impractical and ineffective. The challenge lies in finding optimal ways to integrate both types of motivators. This involves designing reward systems that are perceived as informational (conveying competence) rather than controlling (dictating behavior), fostering a sense of autonomy, and ensuring that rewards do not become the sole or primary reason for engagement in activities that inherently offer intrinsic satisfaction. A nuanced understanding recognizes that extrinsic rewards are a powerful tool but must be wielded carefully to support, rather than suppress, genuine interest and enduring motivation.

Further Reading

[Overjustification effect - Wikipedia](#)

[Self-perception theory - Wikipedia](#)

[Cognitive evaluation theory - Wikipedia](#)

[Intrinsic motivation - Wikipedia](#)

[Extrinsic motivation - Wikipedia](#)

[Lepper, M. R., Greene, D., & Nisbett, R. E. \(1973\). Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. Journal of Personality and Social Psychology, 28\(1\), 129-137.](#)

[Self-Determination Theory - Official Website](#)