

INTRINSIC MOTIVATION

Little children love to play and to learn. They are active, curious, and eager to engage their environments, and when they do they learn. To some extent adults also love to play and to learn. When people are playing and learning in this eager and willing way, they are intrinsically motivated. Throughout life, when they are in their healthiest states, they are active and interested, and the intrinsically motivated behaviors that result help them acquire knowledge about themselves and their world.

Intrinsic motivation is a type of motivation based in people's natural interest in various activities that provide novelty and challenge. Intrinsically motivated behaviors do not require external rewards; rather, they are an expression of a person's sense of who they are, of what interests them. Intrinsically motivated behaviors have what is referred to in attribution theory as an *internal perceived locus of causality*; people experience the causes of their intrinsically motivated behaviors to be internal to themselves (de Charms, 1968).

Prior to the 1950s, theories of motivation focused on physiological drives such as hunger, thirst, and sex, proposing that all behaviors are motivated by those drives and their derivatives (Freud, 1962/1923; Hull, 1943). However, as various phenomena emerged that could not be explained by drive theories, White (1959) suggested that a full understanding of motivation required considering psychological motivations as the basis for some behaviors. He proposed an intrinsic, psychological motivation for interacting effectively with the environment. Deci and Ryan (1985) subsequently stated that the psychological needs for competence and autonomy underlie intrinsic motivation, which flourishes in contexts that allow satisfaction of those needs.

Whereas drive theories implied that humans seek quiescence and minimal stimulation, intrinsic motivation theories suggest that people desire an optimal level of stimulation. Thus, intrinsic motivation involves an ongoing cycle of finding optimal challenges and interesting activities that provide stimulation and then working to master those activities and challenges and then, perhaps after a bit of quiescence, beginning another cycle. In short, when intrinsically motivated, people seek and conquer optimal challenges.

Behaviors such as reading books, solving puzzles, exploring new areas, looking at paintings, and playing softball are intrinsically motivating for many people, but not necessarily for all, because intrinsic motivation is a property of the interaction between a person and an activity. For people to be intrinsically motivated for an activity, they must be doing it because they find it interesting.

Discussions of intrinsic motivation have typically contrasted it with extrinsic motivation. Extrinsic motivation

involves doing an activity because it is instrumental to some separate consequence rather than, as is the case with intrinsic motivation, because the activity is interesting and rewarding in its own right. Thus, people are extrinsically motivated for an activity when they do it in order to earn money, avoid punishment, or comply with social norms.

Since 1971 there has been an enormous amount of research on intrinsic and extrinsic motivation. Numerous studies have confirmed that, relative to extrinsic motivation, intrinsic motivation leads to better conceptual learning, greater creativity, more cognitive flexibility, and enhanced well-being (see Ryan & Deci, 2000). Consequently, there has been great interest in understanding the conditions that enhance versus diminish intrinsic motivation. That is, although intrinsic motivation is inherent to human life, social conditions can help people maintain it or, alternatively, diminish it.

Initial studies on this topic examined how extrinsic rewards affect intrinsic motivation: might they enhance it, undermine it, or leave it unchanged? Thus, if a person were engaged in an intrinsically interesting activity that he or she would be happy to do with no external reward, what would happen to the person's intrinsic interest for the activity if he or she were given an extrinsic reward for doing it? A meta-analysis of 128 experiments examining this question confirmed that tangible extrinsic rewards tend to undermine intrinsic motivation for rewarded activities (Deci, Koestner, & Ryan, 1999). After people are given monetary rewards or prizes for doing an interesting activity, they tend to find the activity less interesting and are less likely to do it spontaneously than they were before they had been rewarded.

Additional studies with young children, teenagers, college students, and adults revealed that other external events, such as directives, surveillance, deadlines, threats of punishment, and negative performance feedback also decrease intrinsic motivation. These extrinsic incentives can control people's behavior, getting them to do the activity, but in the process the people tend to lose interest and persist less. In turn, they are likely to perform less well if the activity requires resourcefulness, deep thinking, or creativity. In contrast, external factors such as offering choice, acknowledging people's feelings, and providing positive performance feedback have been found to enhance their intrinsic motivation, resulting in better performance.

Deci and Ryan (2000) interpreted these results in terms of satisfaction versus thwarting of the basic needs for autonomy and competence. Specifically, people tend to interpret rewards, directives, deadlines, and threats as controllers of their behavior, which thwarts their need for autonomy; in contrast, people tend to experience choice and acknowledgment as support for their autonomy. Similarly, positive feedback tends to satisfy people's basic need for competence, whereas negative feedback tends to thwart that need. When people experience satisfaction of

both needs in relation to an activity, they will tend to be highly intrinsically motivated for that activity, whether it is learning, playing baseball, or making a sculpture. When both needs are thwarted they will be very low in intrinsic motivation, and when there is partial satisfaction of the needs, the level of intrinsic motivation will be moderate.

Further studies examined the general interpersonal context or ambience of particular settings, such as classrooms or workgroups. For example, investigators found that teachers who were more supportive of autonomy and created a supportive classroom environment by understanding their students' perspectives, providing choice, encouraging initiations, and refraining from using controlling language, catalyzed their students' intrinsic motivation and desire for challenge. Similarly, managers who supported their subordinates' autonomy promoted greater motivation and satisfaction on the job. In fact, authority figures such as doctors, parents, and coaches have also been found to influence the motivation and behaviors of their patients, children, and athletes, depending on the degree to which they are supportive of autonomy and competence rather than being controlling and critical.

Finally, Deci and Ryan (2000) pointed out that different people may interpret differently the same external events, such as rewards, feedback, and deadlines. That is, many external events such as rewards have both an aspect that *controls* behavior and one that conveys positive competence *information*. If the controlling aspect is more salient, it pressures people toward specific outcomes, thus thwarting their sense of autonomy and undermining their intrinsic motivation. However, if the informational aspect is more salient, it affirms people's competence and enhances their intrinsic motivation. Whether the controlling or informational aspect is more salient depends on both the situation and the person.

When the interpersonal contexts within which rewards or feedback are administered is generally supportive of autonomy, the informational aspect of the rewards or feedback tends to be more salient. For example, studies have shown that, although monetary rewards typically diminish intrinsic motivation, they can maintain or enhance it if they are administered in an autonomy-supportive context.

In addition, some people, due to socialization, are inclined to experience events such as rewards and feedback as more informational, whereas others are inclined to experience them as more controlling. Thus, individual differences can lead different people to experience the same external event differently, so the event will have different

effects on the intrinsic motivation of the different people (Deci & Ryan, 2000).

To summarize, intrinsic motivation flourishes when people are able to satisfy their needs for competence and autonomy while doing interesting tasks. Specific events in the interpersonal environment, such as the offer of rewards, the imposition of deadlines, and the provision of performance feedback can directly affect people's need satisfaction and, thus, their intrinsic motivation. The general interpersonal ambience can also impact people's need satisfaction and intrinsic motivation both directly and by influencing how they experience external events. Finally, people differ in their tendencies to interpret events and environments in ways that support versus thwart need satisfaction and intrinsic motivation.

Because intrinsic motivation is relevant in many walks of life and leads to more positive outcomes than extrinsic motivation, it seems important to support the autonomy and competence of our children, students, clients, employees, and patients.

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