Draft Submission for the Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship

By James W Berry

(I)Intrinsic and prosocial motivations, perspective-taking, and creativity

Creativity is a complex construct often defined as requiring the components of both novelty and usefulness. So how can organizations and managers activate both novelty and usefulness in encouraging creativity in the workplace? Broadly defined, motivation is a set of psychological processes that directs, energizes, and sustains action (Mitchell & Daniels, 2003). People may be moved to action by several different kinds of motivations. Researchers have explored the effects of extrinsic, intrinsic, and prosocial motivations on creativity often with inconsistent findings. Perhaps alone these motivational drivers encourage a focus on only one of the two main components of creativity, but activated together different motivations may more consistently encourage creativity through increasing both novelty and usefulness considerations.

Intrinsic Motivation

The most common definition of intrinsic motivation can be stated as a desire to expend effort based on an individual's positive reaction to the task itself, primarily founded in a personal interest in and enjoyment of the activity that is being performed (Amabile, 1996; Ryan & Deci, 2000). Intrinsically motivated people often find themselves lost in their driven activity for the pure enjoyment of it. The need to explore this activity often leads one to focus on new experiences with little regard for their value outside of the pleasure derived from engagement in this activity.

Prosocial Motivation

The desire to expend effort based on a concern for others is a common definition of prosocial motivation (Batson, 1987; Grant, 2007). The target of prosocial motivation can be a single individual, group, or other people in general. Thus, this motivation directs one to act in a way that is intended to benefit others. This focus on helping others encourages one to have an understanding of what might contribute to others needs or wants.

Perspective-taking

The cognitive process of adopting another viewpoint in an effort to understand their needs, positions, and interests is often defined as perspective-taking (Parker & Axtell, 2001). Trying to view a situation through another's eyes can help one recognize what that other person is thinking, feeling, or interpreting from a given scenario.

Creativity

J.P. Guilford (1897-1987) is often considered the father of modern creativity research. He defined creativity as novelty bounded by some degree of evaluation that the novelty fits the needs of the particular situation. More recently, creativity has been broadly defined as a contextually based social judgment that an idea, process, product, or person is both novel and useful (Amabile, 1996). The two factors of novelty and usefulness are contextually bound in that they are essentially comparative considerations. Novelty is compared to what is currently known or done. Usefulness is estimated with respect to a need, intent, or problem.

(II)Positive motivational influences on creativity

Creativity can be found in almost every aspect of human endeavors from art to science, from one's personal life to business interactions. The outcomes of creative efforts are often seen as important drivers of economic value and human achievement. Yet as creativity requires some component of differentiation from what is already present or currently accepted there is a note of risk involved with being creative. In presenting a creative product or approach, one opens oneself to failure or rejection. Thus this type of activity is not naturally a default but requires a motivational force to counterbalance the perceived risks of being different that are so integral to being creative. Even as creativity requires some amount of novelty it also requires a second component: usefulness. Driving one without the other may leave an effort short of achieving an improvement in creativity.

Novelty and usefulness are the two main criteria for something to be considered creative. Novelty is the extent to which something is new or unlikely to have been considered by others. Usefulness is the appropriateness or value of a thing in a given situation. If one was asked to generate a creative new product to replace glass as a car windshield, corrugated aluminum might be a novel response, as it would be different and probably unlikely to have been considered by others. However, this response would probably not be considered useful as a key need in car windshields is transparency. This idea would thus not be considered creative as it only possesses one and not both components required for creativity. Just the same, a response of clear plastic might be useful but not novel. Creativity requires the presence of both novelty and usefulness factors.

It is this dual componential nature of creativity that makes single focused approaches to driving its attainment inconsistently effectual. If one motivates a focus on novelty without consideration for usefulness, creativity may be increased via more novelty but those gains may be offset by a loss of focus on usefulness. This could happen with a drive towards usefulness crowding out novelty, as well. To consistently motivate people to higher creative achievement both components must be activated.

Teresa Amabile (1996) has tied intrinsic motivation to creativity as a central factor essential to developing creative ideas or products. When one is driven by intrinsic motivation the engagement of the activity is the end and the activity is not undertaken as a means to some external goal. Individuals so motivated experience a desire to explore their curiosities, to learn, and to continue the activity. This individually driven focus on the enjoyment of the task at hand leads to a feeling of freedom and escape from control that allows an individual to explore novel concepts. This feeling of freedom and intense immersion in an activity is well described by Mihaly Csikszentmihalyi in his book Creativity (1996).

This type of activation encourages creativity through cognitive exploration, positive affect and persistence. On the cognitive side the desire to learn often stimulated when one is intrinsically motivated by a task, encourages one to expand one understanding of the activity and explore new avenues of the task. Positive affect has a similar influence on creativity in that positive affect has been linked to an increase in cognitive flexibility and a broadening of the information available to an individual. Additionally, persistence in the activity allows a longer time to explore new ideas and generate options, thus maximizing the effects of cognitive and affective benefits. This increase in flexibility and information increases the likelihood that combinations of ideas and solutions will be unique. Donald T. Campbell argued in 1960 that the more information available and the more combinations one can generate will logically lead to more novel options being developed.

When one is so engaged in an activity, the development of novelty can often been seen as an end in itself. Often times one can get so absorbed in the intrinsically motivated activity that other considerations are ignored. It is this aspect of intrinsic motivation that encourages a drive for novelty at the expense of external considerations beyond the activity. Sometimes the results of these intrinsically motivated activities coincide with external demands. Organizational efforts at matching individual's personal interests with work duties, allowances for job crafting or encouraging autonomy are several ways of encouraging alignment of novelty generation with organizational utility. However, these efforts may encourage a chance congruence of novelty and usefulness; they do not put a direct focus on the utility of generated ideas or solutions.

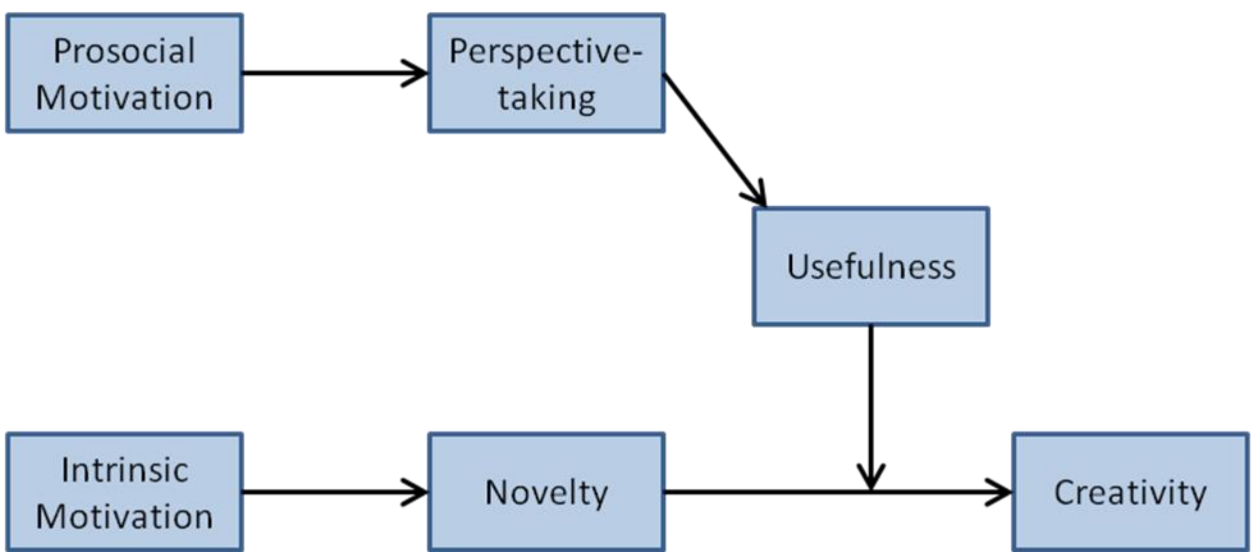
A focus on utility is often encouraged by motivational efforts imposed from external sources, particularly within organizations. Externally determined rewards for completing certain tasks or reaching milestones can be very effective at driving certain behaviors, but these rewards encourage activity in a task for an externally justified end. Often these extrinsic motivational approaches are seen as efforts to control an individual and as such are often detrimental to intrinsic motivation and the resultant gains in novelty. This being the case, extrinsically focusing a person on an externally determined goal (usefulness to the organization) may come at the expense of novelty. There is evidence from a recent meta-analysis that where extrinsic motivation can be applied in a non-controlling fashion towards creative targets there can be a strong positive effect on creativity (Byron & Khazanchi, 2012).

Creative synergy or a maximization of both novelty and usefulness can be engendered when intrinsic motivation is paired with an internal drive to be productive for others. Prosocial motivation encourages individuals to be concerned for and act in ways that contribute to the welfare of others. This is an internally generated desire and thus avoids the negative effects related to feelings of being externally compelled to engage. However, acting on a desire to help others, necessitates at least an attempt at understanding of what may be helpful to them. This type of other-focused motivation may benefit creative efforts by providing a desire to focus on the usefulness of these efforts.

Being motivated to help someone may provide the intent for usefulness. Moving this intent toward effective improvement in creativity requires understanding of what might be helpful to the target of one's prosocial motivation. This intent to help others encourages one to build an understanding of what might be beneficial to those one seeks to help. In this way, prosocial motivation promotes an attempt to understand issues from another's perspective. This perspective taking can help provide an external reference of what ideas or products may be ultimately useful to others.

Combining both intrinsic and prosocial motivations may be an effective way to maximize creativity. By activating increased focus on both novelty and usefulness, the motivational effects may be more powerful together than alone. This model as shown in Figure 1 posits that intrinsic motivation influences creativity through increasing novelty and prosocial motivation influences creativity through perspective-taking increasing usefulness:

Figure 1: Relations between intrinsic motivation, prosocial motivation, perspective-taking and the components of novelty and usefulness driving creativity



Conclusion and future directions

This model of how motivation relates to creativity through its components of novelty and usefulness can be valuable in conceptualizing how different motivations may influence creativity to generate synergistic effects. Research in this area (Grant & Berry, 2011) has supported this general model, finding a strengthening of the link between intrinsic motivation and creativity when perspective-taking is encouraged through prosocial motivation. The inclusion of the novelty and usefulness components in this model are at this point theoretical. How these motivations and perspective-taking exactly influence creativity efforts is an area for future exploration. Additionally, perspective-taking may be engendered by different means other than prosocial motivation, thus there are opportunities to explore the independent effects of perspective-taking on usefulness and creativity.

These findings suggest that organizations might want to broaden their attempts to motivate employees for creativity, through multiple avenues simultaneously to encourage a focus on both novelty and usefulness. By considering how different motivations influence creativity through the individual components of novelty and usefulness, this work attempts to explain inconsistent results often found when studying single motivations and their relation to creativity. Hopefully, this approach to expand the precision of how motivation relates to creativity can be applied to other areas of investigation into this complex concept we call creativity.

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