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IDEAS ARE BORN IN FIELDS OF

PLAY



The combination of uncertainty, constraints and freedom involved in play can be a route to creative solutions.

PLAY IS A FORM OF HUMAN BEHAVIOUR that is easily understood in experiential terms. We recognize expressions of play in the world around us, and are aware that play occupies spaces of cultural and economic significance, such as theatres, cinemas, sports, games of chance and hobbies, to name a few. While play is a familiar concept, as a topic of inquiry it is among the least-studied and least-understood organizational behaviours – despite the fact that it

has long been associated with creative functioning.

More than 30 years ago, Stanford Professor **James March** suggested that play fosters creativity by legitimately freeing people from the requirement of behavioural consistency, and the University of Michigan's **Karl Weick** has argued that play fosters 'combinatorial flexibility' – the novel recombination of existing elements in one's behavioural repertoire. More recently, Harvard Business



Y CREATIVITY AND PLAY IN ORGANIZATIONS

School Professor **Teresa Amabile** has found that a generous level of freedom encourages people to play constructively at work by combining ideas in new ways to generate new products or solutions.

Despite these and other scholarly strides, most organizations continue to view play as, at best, an occasionally-affordable distraction from work that may boost employee morale but has

little overall impact on the core business. In this article we will argue that play deserves systematic attention, because by constraining it, organizations may actually be constraining the creative process itself.

The Elements of Play

Play does not consist of a particular set of activities; rather, it is a



MOST FORMS OF PLAY INVOLVE SOME FORM OF UNCERTAINTY OR UNRESOLVED POSSIBILITY.



way of organizing behaviour in relation to a particular activity. Designing and writing are sometimes play, but sometimes not; and cooking and driving are play for some, but not for others. The essence of play is that one does not 'do' the activity in the ordinary sense; rather, one 'plays' it.

We define play as a behavioural orientation consisting of five elements. While not all five must be present to constitute play, the more each element is present, the more play-like an activity becomes.

1. Threshold Experience

Play is accompanied by an awareness that it is somehow 'distinct' from ordinary life. Between-and-between the inner and the outer, the old and the new, or the true and the false, play has a 'threshold awareness' that sets it apart from life as usual. In many cases play is a threshold between the true and the false, being itself neither true nor false. In a play-fight, a bite is both not a bite and 'not not' a bite; in a game of cops-and-robbers, a robber is not a robber but also 'not not' a robber – that is, she is not a real robber but she does behave as if she were one. Theatrical plays offer such thresholds between convention and illusion, the former involving the realization that what takes place is not true, the latter involving the enactment of those happenings as if they *were* true, calling for the willful suspension of disbelief.

2. Boundaries in Time and Space

Play is circumscribed within limits in time and space. Sports, festivals and spectacles are forms of play that claim their own space, such as stages or playgrounds, and 'time out of time' – an autonomous duration perceived not so much by clock time but by what happens internally from its beginning to its end. These boundaries in time and space separate play from normal life, suspend normal rules, and legitimize undesirable, repressed or unexpected

social roles and behaviours. Within the boundaries of play, people do things they normally wouldn't and abstain from things they normally do; they carry to the extreme behaviours that are usually regulated by measure, inverting the patterns of daily life.

3. Uncertainty, Freedom and Constraint

Most forms of play involve some form of uncertainty or unresolved possibility. For instance, one can internalize the rules of chess and master its strategies, but one can never tell how a game is going to unfold because no two games are ever alike. The element of surprise of play is linked, in turn, to both freedom and constraint. Play is relatively free from external constraints and allows participants a considerable degree of autonomy to manipulate processes and assume new, even unrealistic identities and roles. At the same time, play imposes its own internal constraints, which are determined or voluntarily accepted by the players themselves. In competitive games, the constraints are fixed rules that do not determine the course of action or the outcome, but rather, enhance the uncertainty of the game. For example, sports have two elements that make them intrinsically rewarding: an uncertain outcome, which stimulates surprise and excitement; and sanctioned display, which allows the demonstration of physical or intellectual dexterity within a set of rules.

4. Flexible Association Between Ends and Means

What defines play is not the presence or absence of goals, but the fact that it is not motivated by the search for efficient means to satisfy a fixed goal in some reliable way. It is not about the degree of rationality that it may or may not possess, but the flexible manner by which *means* and *ends* are handled. Play may be triggered spontaneously (e.g., fantasy); it may be undertaken deliberately but unfold a-rationally (e.g., improvisational play); or it may have

goals that evolve over time (e.g., experimental play). Play is not ‘means without end’; rather, it is a crooked line to the end that circumnavigates obstacles put there by the player, or voluntarily acceded to by him. As such, play has been referred to as ‘a special form of violating fixity’, where ends are often altered to meet the means at hand.

5. Positive Affect

Play involves positive affect (i.e. emotion) that varies in its degree of intensity (from relaxation to frantic joy) and complexity (from simple feelings such as ‘fun’ to complex feelings such as ‘emotional relief’). Play can be relaxing, as when one plays solitaire on the computer during a work break, or it can involve high levels of arousal, as when a medical team celebrates exuberantly after saving a life. While play is often thought of only as ‘fun’, its affective structure is more complex and can also involve negative themes. For example, negative feelings can be expressed through and even used in play, such as the channeling of aggression through sports, or when children act out violent or war-related themes. Play therefore involves both positive and negative emotions, and cognitive and emotional elements, but it generally results in some form of positive affect.

Facilitating Creativity

Albert Einstein once said: “When I examine myself and my methods of thought, I come to the conclusion that the gift of fantasy has meant more to me than my talent for absorbing positive knowledge.”

The problems Einstein puzzled with did not have a known solution precisely because he framed them in that way. In organizational contexts, however, even when a task does not have a known solution, an ends orientation – in which one is focused on the outcomes of the activity rather than its means – usually leads managers to accept the first solution that is ‘satisfactory enough’. More often than not, this is not the most creative solution. Creativity requires exploring and practicing with alternative responses to the task.

The fluidity and flexibility of play decrease the likelihood of premature closure and stimulate practicing with many alternative responses. By fostering the generation of alternative responses, play also facilitates a better, more informed evaluation and selection of a solution, as well as the generation of more creative solutions by possibly combining elements of different solutions.

Creativity requires taking and switching between different perspectives, and play facilitates exploring different perspectives, creating alternative worlds, assuming different roles, enacting different identities, and also taking all these, and the players themselves, out of the cognitive contexts in which they normally operate.

Play facilitates several cognitive processes that are relevant to creativity:

Problem framing. The framing of a problem determines how that problem will be solved. When problems are posed in a unique way, their solutions are more likely to be novel. Problems can be presented or discovered, but in either case, framing the problem in a unique way is essential. Play provides ample room for the redefinition of a situation. Its betwixt-and-between reality defamiliarizes the elements of even a familiar activity, increasing the likelihood that the task will be framed in a unique way. Tasks are also more likely to be framed in unique ways when their constraints are internal to the task and under the control of the people performing them. The relative freedom of play from external constraint increases the likelihood that even familiar tasks will be reformulated in fresh ways. Furthermore, the loose and flexible association between means and ends in play encourages people to sense problems in the first place, that is, to avoid defining the task in the tried-and-true way that usually leads to already-known rather than novel solutions.

Divergent thinking. This refers to the generation of information from given information, where the emphasis is on variety of output from the same source. It involves ideational fluency (numerous ideas), ideational flexibility (shifts in approach) and broad scanning.

Mental transformations. Mental transformations entail the transformation of existing knowledge into new patterns or configurations through association, combination or transformation of existing memory structures; metaphoric production; analogical thinking; and broad and flexible idea categorization.

Studies have shown that play involves a great deal of both divergent thinking and mental transformations, and that positive affect induced in a safe context stimulates both divergent thinking and mental transformations, while positive affect induced in a threatening context leads to increased self protection and risk aversion.

Experimentation. The boundaries and threshold reality of play stimulate novelty by encouraging experimentation with diverse ideas and possibilities that would not be tried under other circumstances. Play decreases the risks commonly associated with experimentation and, thus, may produce more variance. The fluidity of play and its relative freedom from external constraint decrease the likelihood of functional fixedness and premature closure, and stimulate the generation of numerous and diverse ideas for the task at hand.

Unusual Mental Associations. By liberating concepts, objects, and behaviour from their normal contexts and uncoupling means from ends, play also fosters unusual mental associations and the reconfiguration of the components of ideas, objects or behaviours into new arrangements. For example, in their long hours of play, two bicycle-store owners, the Wright brothers, combined their knowledge of bicycles with their observations of birds to invent the first airplane.

Familiarity with Symbolic Realities. In play, people step outside of the familiar into the imagined and even into the contradictory. This is facilitated by the nature of play as existing on the threshold between reality and unreality, as discussed above. The symbolic realities often enacted in play involve imagery, metaphors and analogies, all of which facilitate creativity.

Providing Time and Space for Play

Whether managers like it or not, some of their employees' time at the office is spent not engaging in work activities – and sometimes, specifically *disengaging* from work activities. People sometimes perform personal tasks and leisure activities during the workday, such as reading blogs or participating in office betting pools. Traditionally, scholars have been tempted to view these activities as an inefficiency that diverts attention and effort away from the core work of the organization. However, these activities form the context in which people work, and as such, we believe that they can influence creativity in an indirect, peripheral way.

In fast-paced work environments, employees have to make frequent transitions between different work tasks, and making these transitions effectively entails shifting 'cognitive gears'. By offering possibilities for cognitive restoration, play can help people return refreshed to the same task or make the transition to a new task. As an organizational behaviour, play is manifested in two general ways:

Play as diversion is not internal to work tasks but is nonetheless part of the larger social and emotional context in which individuals perform them. The core aspect of the work of an industrial designer is designing, not checking Facebook on her computer. Nevertheless, diversionary play often occurs with

ritualistic precision. It can facilitate creativity by influencing people's psychological processes and also by creating a social, relational and cultural context that is conducive to creativity. Such play can help people adjust psychologically to their work by facilitating restoratory and compensatory functions. For example, researchers have suggested that diversionary play alleviates the cognitive exhaustion associated with the otherwise relentlessly mindful jobs of knowledge workers. Such play provides mental breaks, which are important for incubation – the stage of the creative process that involves unconscious processing and the free recombination of ideas. Diversionary play also transcends the organization's functional boundaries and brings together employees from various departments and clients as well, creating informal channels for exchanging insights and ideas that otherwise would not be shared. In addition, a moment of fun with colleagues helps team members break down hierarchical boundaries and relate to one another in a personal way. This makes people feel psychologically safe to explore new ideas and discuss them with their colleagues without fearing criticism of their ideas.

Play as engagement, on the other hand, occurs when play is an integral part of work. Many people simply cannot work without playing: creative writers, designers, planners and social theorists use fantasy and imagination; athletes compete; consultants and researchers explore; mathematicians solve puzzles; and therapists may use therapeutic play. Play as engagement entails a behavioural orientation to performing work, and as such, it has a direct functional relation to creativity. While diversionary play can affect creativity indirectly by shaping a favourable affective climate, play as engagement affects creativity *directly* because it is internal to an individual's work tasks. Of course, whether or not the positive affect induced in diversionary play increases the likelihood of creativity on the subsequent core work task depends on whether the subsequent work task provides some opportunity for creativity in the first place: returning to a less-than-interesting task after a fun moment of play not only fails to make people more creative, it may also lead to feelings of resentment that 'playtime' is over.

Employees are more likely to engage in play within a clearly delineated time and space that temporarily suspends normal rules and encourages them to play without worrying about consequences. Organizations can provide a specific time and space for diversionary play that can be both physical and psychological. Many companies provide physical space and time for diversionary play by having corporate off-sites, office birthday parties, or in-house gyms or relaxation rooms. Importantly, people must feel 'psychologically safe' to take advantage of these opportunities or to make their own time and space for playful diversions. Psychological safety is created only if an organization develops a culture that recognizes and values play.

STUDIES INDICATE THAT ORGANIZATIONS THAT EMBRACE DIVERSIONARY PLAY ARE MORE CREATIVE THAN THOSE THAT DO NOT.



Studies indicate that organizations that embrace diversionary play are more creative than those that do not. Innovative firms such as **DuPont**, **Gore** and **Google** permit their people to spend a significant chunk of their work time freely experimenting with new ideas that they are intrinsically curious about. Such practices institutionalize a legitimate space and time in which people feel safe to ‘play’ freely with their work, away from rigid structural requirements.

At DuPont, a legitimate organizational time and space for play has led directly to creative ideas for new products, including the invention of the fiber Kevlar, one of its most successful and profitable innovations. Kevlar was invented when a team explored the idea in ‘free-time’ for six months. During this period, no one else knew anything about the project. When asked why she kept the project secret, the chief chemist replied, “It was my job to spend some of my time exploring new ideas on my own. I did not need anyone’s permission”.

Engineers at Google are expected to spend a whopping 20 per cent of their time on non-core projects. These employees are encouraged to explore new products without allowing potential profitability or marketability to hinder their efforts. Google CEO **Eric Schmidt** claims that most of the company’s new products are not part of a strategic vision for the organization but result from these side projects.

In closing

Creativity is next to unthinkable unless one is willing to entertain alternative perspectives to the dominant interpretations of organizational realities and to express these views to others. In highly-cohesive organizations where social pressures for conformity and behavioural consistency rule, diversionary play can

foster creativity by nurturing an informal social space that supports the creation and expression of alternative interpretations to dominant mindsets and processes.

By temporarily suspending functional pressures, structural obligations and pressures for consistency, play delineates a transitional space, a between-and-between world in which employees can explore and experiment with new variables, behaviours or identities that may not seem immediately useful in generating products or solutions. But by generating such a variety of ideas, play can lead to a more diverse set of options from which to select products and services for our organizations and society.

In the end, creativity depends upon novelty, and novelty depends upon cognitive variation. The more cognitive elements are combined to solve a problem, the more original the solution will be. While the cost of play can be inefficiency, errors or dead ends, the cost of *not* playing may actually be even more severe to organizations whose survival and prosperity depend upon creativity. **R**



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