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The Handbook of the Study of Play

Volume I

James E. Johnson, Scott G. Eberle, Thomas S. Henricks,
and David Kuschner

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Chapter Seven

Studying Play Without Calling It That

Humanistic and Positive Psychology

Peter Gray

Play is a four-letter word that psychologists largely avoid, at least in the polite company of other psychologists. I'm not sure why. Maybe it's because play is hard to define, or is used in everyday speech to mean so many different things (so it's avoided to avert a definition problem); maybe it's because play is hard to pin down in controlled research studies (once you control it, it's not fully play); maybe it's because the word itself, at some level of our consciousness, connotes triviality (and who wants to stake one's reputation on something trivial?); maybe it's because the larger culture doesn't value play (so the culture is reluctant to fund research on it, and researchers themselves have grown up not valuing it).

I suspect there's some truth to all of these possibilities.

The avoidance is far from absolute. Throughout the history of psychology there have always been some researchers who study play and call it that (see chapter 3, by D. Bergen), but surprisingly few when one considers play's centrality to human behavior and experience. The number of research and theoretical articles on the psychology of play is a tiny portion of the total number of research and theoretical articles in psychology as a whole, and they rarely appear in the most prominent journals or make it into general psychology textbooks or large compendia.

A few years ago I had the experience of looking through what is still the most recent (6th) edition of the *Handbook of Child Psychology* (Damon & Lerner, 2006) to see what it had to say about play. *Handbook* is a misnomer for this jumbo work, which you couldn't possibly hold in one hand. It's four volumes long, with seventy-nine chapters and nearly five thousand double-column pages. The publisher (Wiley) says of the work: "This authoritative four-volume reference spans the entire field of child development and has set the standard against which all other scholarly references are compared."

But here's what I found: *none* of the seventy-nine chapters is about play or even hints at play in the title. The subject indexes contain a few page references to play, but when I followed them up I discovered that, in all four volumes combined, slightly less than ten pages are devoted to play. Ten pages out of five thousand—two-tenths of 1% of the whole—are devoted to the topic of play in a work that is supposed to sum up all that we know of child psychology! Remarkably, there were even fewer pages devoted to curiosity and exploration.

How can this be? How can a modern compendium of child psychology have essentially nothing to say about play and curiosity? To borrow (and put to a different end) a phrase once used by William James, “only a mind polluted by too much education” could possibly think about children for long without thinking about play and curiosity. This particular four-volume work may be an extreme example, but it’s nevertheless a telling example; it’s amazing that such a thing can exist.

I thought the story might be different when, as preparation for writing this chapter, I went to the humanistic psychology and positive psychology shelves of my university’s library and started thumbing through major compendia and classic works in these fields. After all, these are the realms of psychology that focus on the positive, growth-promoting, creative, happy aspects of human nature, and what could possibly fit that bill more than play? But here’s what I found:

- The most recent edition of *The Handbook of Humanistic Psychology* (Schneider, Pierson, & Bergental, 2015), which is 750 pages long, with forty-seven chapters, has no chapter devoted to play, and it’s seventeen-page index goes right from Platonism to pluralism. There are also no mentions of play in chapter headings or the indexes of other compendia of humanistic psychology I was able to find, including the works edited by Moss (1999) and Wertz (1994).
- The classic works by the primary founders of humanistic psychology—Abraham Maslow (1968, 1970, 1971) and Carl Rogers (1961, 1980)—likewise have no mention of play in chapter titles or subtitles and no or very little mention of it in the indexes or anywhere else.
- A search of the entire contents of the *Journal of Humanistic Psychology*, from its first issue in 1961 to the most recent issue in 2014, revealed a total of just four articles with play in the title or as a keyword.
- The most recent edition of *The Oxford Handbook of Positive Psychology* (Snyder & Lopez, 2009), which is 695 pages long and has sixty-five chapters, has no chapters devoted to play and no play entry in its very extensive index. I also checked four other general works on positive psychology (Aspinwall & Staudinger, 2003; Boniwell, 2012; Compton, 2005; and Moneta, 2014) and found no mention of play in the table of contents or index of any of them.
- A search of the entire contents of the *Journal of Positive Psychology*, from its first issue in 2006 to its most recent issue in 2014, revealed just two articles with play in the title or as a keyword. One of those is not especially about play (the title had the phrase “play some music” in it). The other is a review of research on pretend play for the purpose of showing its relevance to positive psychology (Pearson, Russ, & Spannagel, 2008), which I recommend as a supplement to this chapter. Its introduction includes the statement (pp. 110–111): “Although pretend play has long been recognized as developmentally important, until now it has not been included within the positive psychology literature.” The same is true now, six years later, and it’s largely true of other forms of play as well, not just pretend play.

So, amazingly, even humanistic and positive psychologists avoid the “p” word! But unlike the *Handbook of Child Psychology*, which avoids the concept as well as the word, the works on humanistic and positive psychology are chock full of ideas and research findings that are relevant to an understanding of play, despite their studious avoidance of the word.

BASIC TENETS OF HUMANISTIC AND POSITIVE PSYCHOLOGY

Historians of *humanistic psychology* attribute its founding primarily to the American psychologist Abraham Maslow (Moss, 2001). Already in the 1940s, Maslow began reacting against the behaviorism of B. F. Skinner, which dominated psychology in academic research centers through the middle of the twentieth century. Behaviorism was almost entirely devoted to the study of the behavioral effects of reward (reinforcement) and punishment. Research on rats pressing bars, or pigeons pecking keys, for tiny pellets of food was seen by behaviorists as the route to understanding most if not all of behavior.

The type of organism studied was deemed largely irrelevant; the same laws were presumed to apply to all (Skinner, 1938). The behaviorists avoided terms referring to the mind, because mind cannot be seen, and tried to talk purely in terms of relationships between observable behavior and observable events in the environment. To Maslow, this approach left out almost everything that is interesting and wonderful about human beings.

Some date the founding of humanistic psychology to 1954, the year when Maslow published the first edition of his book *Motivation and Personality*, and also the year in which he developed a mailing list of researchers interested in “the scientific study of creativity, love, higher values, growth, self-actualization, and basic needs gratification” (Moss, 2001). The mailing list grew into an organization of humanistic psychologists and led, in 1961, to the creation of the *Journal of Humanistic Psychology*, which exists to this day.

The other most central person in the founding of humanistic psychology was Carl Rogers, the American psychotherapist who reacted against many of the psychoanalytic ideas of Sigmund Freud and his followers. Rogers developed a clinical approach—called client-centered or, later, person-centered, therapy—in which the therapist is a facilitator of self-discovery and mental growth processes that originate within and are directed by the client, not the therapist.

While psychoanalysts were most interested in the dynamics of the unconscious mind and in uncovering unconscious defenses, Rogers was more interested in clients’ conscious thoughts, perceptions, and aspirations. He tended to see the best in people, their strengths more than their weaknesses, and he structured his conversations with clients in ways that helped them see and build upon the best in themselves.

Rogers and Maslow held many ideas in common. Maslow was interested in “self-actualizers” and Rogers was interested in “fully functioning persons.” Both conceived of the psychologically healthy person as highly integrated, autonomous, creative, having a strong sense of personal identity, being alive to the moment, maintaining a childlike wonder and curiosity about the world, and empathetic and caring toward others (DeCarvalho, 1991). These were not the kinds of things the behaviorists were studying, with their rats and pigeons, nor what the psychoanalysts were focusing on, who were concerned more with mental pathology and how to deal with it than with mental health and how to optimize it.

Maslow, Rogers, and the other early humanistic psychologists tended to reject the controlled, experimental research paradigm that dominated academic psychology, as inappropriate for understanding human beings as whole, thinking, feeling, autonomous persons. They were more interested in autobiographies: the stories that people told about themselves, whether in their writings, clinical interviews, or interviews conducted for research purposes.

The analyses they conducted with such data were more qualitative and descriptive than quantitative. Such methods have persisted, and partly for this reason mainstream psychologists have often criticized humanistic psychology as nonscientific. In response, humanistic psychologists typically say that they have a broader view of science and use whatever methods best fit the questions they wish to address, rather than tie themselves to experimental methods and thereby ignore the interesting questions.

Positive psychology—at least as an officially recognized field—is a much more recent development than humanistic psychology. Its founding is most often pegged to the presidential address that Martin Seligman delivered to the American Psychology Association in 1998 (Linley, Joseph, Harrington, & Wood, 2006), in which he urged psychology to adopt a new focus, that of helping people lead happy, fulfilling lives (Seligman, 1999). Seligman, whose early research was with animals and centered on learned helplessness (in the behaviorist tradition), had already turned his own research around to study people and focus on learned optimism, the opposite of helplessness (Seligman, 1991).

Positive psychology is similar to humanistic psychology in its focus on optimal human functioning, but differs in a number of ways. It's viewed less as a movement in opposition to mainstream academic psychology and more as simply a realm of psychological research—the realm that studies optimism, hope, love, happiness, creativity, and other positive aspects of our being. In one review of the field, positive psychology was defined as “the study of the conditions and processes that contribute to the flourishing of optimal functioning in people, groups, and institutions” (Gable & Haidt, 2005, p. 104).

In general, positive psychology is less whole-person oriented and more process oriented than is humanistic psychology, and it is more prone to use experimental and other quantitative methods. A common procedure in positive psychology is to develop and validate questionnaires or tests for assessing, quantitatively, constructs such as optimism or creativity and then use those questionnaires or tests as research tools to study the conditions that promote the characteristic being measured or the consequences of having such a characteristic.

By the time of Seligman's APA address, academic psychology had largely abandoned Skinner's behaviorism and Freud's psychoanalytic theory. The dominant approach was (and still is) that called cognitive psychology—the study of human mental processes using scientific methods (and generally using college freshmen and sophomores, not rats and pigeons, as research subjects). Therefore, positive psychology was (and is) easy to accept, by academic psychologists, as simply a branch of cognitive psychology.

WHAT IS PLAY?

Because they avoid the word, we can't rely on humanistic and positive psychologists to tell us what play is or to let us know which of their ideas and findings pertain to play. To seek their contributions to an understanding of play, therefore, we have to begin by defining play ourselves. What are the characteristics of an activity that lead play scholars to label an activity as *play* or as *playful*? If we can identify those characteristics, then we can look to see how writings in humanistic and positive psychology have contributed to an understanding of the elements of play and the relevance of play to optimal human functioning.

A few years ago, for other purposes, I examined the classic writings on human play with the aim of extracting a general definition that would encompass the concept as viewed in all of those works collectively. Elsewhere I've summarized that definition for researchers (Gray, 2012), elaborated on it in a book about the educative value of play (Gray, 2013a), and applied it in an article about the play lives of hunter-gatherers (Gray, 2009). Here's a brief elaboration of the definition, aimed at tying the characteristics of play to concepts in humanistic and positive psychology.

All scholars of human play agree that play involves a constellation of characteristics that have to do with the motives or mental framework underlying the observed behavior. They also seem to agree that play is not necessarily all-or-none; it can exist in matters of degree. By the definition I adopt here—which combines and refines definitions proposed by many others—an

activity can be characterized as play, or as playful, to the degree that it is (1) self-chosen and self-directed; (2) intrinsically motivated; (3) guided by rules; (4) imaginative; and (5) conducted in an active, alert, but relatively nonstressed frame of mind.

The first four of these characteristics are derived rather directly from definitions used in classic works on play, such as those by Groos (1901), Huizinga (1955), and Vygotsky (1978). The fifth characteristic is one I added; it is based partly on research by Mihaly Csikszentmihalyi (discussed later) on the state of mind people report themselves to be in when deeply involved in play. Following is a brief elaboration of each of these characteristics, showing how it is relevant to humanistic and positive psychology.

Play is self-chosen and self-directed. Play, first and foremost, is what one wants to do, as opposed to what one has to do. Players choose not only to play, but how to play. In social play (play involving more than one player), one person may emerge for a while as the leader, but only at the will of all the others. Anyone may propose rules, but the rules must be agreeable to all if the behavior is to remain in the realm of play for all. The most basic freedom in play is the freedom to quit (Gray, 2013b). The freedom to quit ensures that all of the players are doing what they want to do, and it prevents leaders from enforcing rules that are not at least tacitly accepted by the other players.

So, on this first count, play would seem to be a prime topic of interest to humanistic and positive psychologists, with their emphasis on autonomy, self-direction, and democratic values. Play always involves autonomy and self-direction, and social play always involves democratic decision making (not usually by vote, but by tacit acceptance or argument leading to consensus or walking away). I've argued elsewhere that play is the natural means by which children learn to be autonomous, self-directed, and democratic (Gray, 2013a). And of course, play makes people happy—largely because it's self-chosen and self-directed—and there's no concept more central to positive psychology than happiness.

Play is intrinsically motivated—means are more valued than ends. Play is activity that, from the conscious perspective of the player, is done for its own sake more than for some reward outside of itself. In other words, it is behavior in which means (the actions themselves) are more valued than ends (results or goals). When people are *not* playing, what they value most are the ends of their actions. A person may scratch an itch to get rid of the itch, or work at a boring task for money or to get an A on a report card. When people are not playing, they typically opt for the least effortful way of achieving their goal. Nonplay abides by the principles laid out by Skinner and his followers.

But play defies all that. In play, people engage in an activity for its own intrinsic value or pleasure. In play, attention is focused on the means more than the ends, and players do not necessarily look for the easiest routes to achieving the ends. The child playing on the beach is more interested in building the sandcastle than in having either the castle or the praise it might bring from observers. Play would seem to be exactly the kind of behavior Maslow had in mind when he declared that the behaviorists' principles have limited utility for understanding human behavior.

Play is guided by rules. Play is never random activity; it always has structure, and that structure derives from rules in the players' minds. The rules are not like rules of physics, nor like biological instincts, which are automatically followed. Rather, they are mental concepts that often require conscious effort to keep in mind and to follow. The rules of play provide boundaries within which the actions must occur, but they do not precisely dictate each action; they always leave room for creativity. Activities that are precisely prescribed by rules are better referred to as rituals rather than play.

In social play, the rules must be shared, or at least partially shared, by all of the players. The rules may or may not be spoken. Even playful fighting and chasing, which may look wild to the observer, is constrained by rules. Indeed, a fundamental difference between a play fight and a real fight is that the former has rules and the latter doesn't. In play fighting you can't kick, bite, scratch, or really hurt the other person, and if you are the stronger of the two you must self-handicap in some way to make it fun for both yourself and your playmate.

The rule-based nature of play was most strongly emphasized by the Russian psychologist Lev Vygotsky (1978), in his classic essay on the role of play in children's development. Vygotsky argued that play is the primary means by which children learn to control their impulses and abide by socially agreed-upon rules. Nature has endowed children with a powerful, innate desire to play with friends, but to fulfill that desire they *have* to control their impulses and abide by the rules; otherwise their playmates will leave them. Self-control, ability to structure one's own behavior effectively, and cooperation are certainly among the values proclaimed by humanistic and positive psychologists.

Play is imaginative. Play always involves some degree of mental removal of oneself from the immediately present real world. This is the characteristic that Johan Huizinga (1955) emphasized most strongly in his classic book, *Homo Ludens*, as he built his argument that play provides the engine for cultural innovations. Innovation always requires imagination, and imagination always involves some degree of playfulness. Imagination is also the characteristic most strongly emphasized by researchers who focus on the role of play in children's development of creativity and their ability to think abstractly, in ways that go beyond the concrete here-and-now.

Imagination is most obvious in pretend play, also called socio-dramatic play (when it involves more than one player)—in which the players create the characters and narratives that they act out and turn rags into babies or broomsticks into rocket ships—but it is also present in other forms of human play. In rough and tumble play, the fight is a pretend one, not a real one. In constructive play, the players may say they are building a castle, but they know it's a pretend castle. In formal games with explicit rules, the players must accept an already established fictional situation that provides the foundation for the rules. For example, in the real world bishops can move in any direction they choose, but in the fantasy world of chess they can move only on the diagonals.

Imagination and creativity are certainly central concepts to humanistic and positive psychology, and children practice them continuously in play. Whenever we adults imagine and create, we are to some degree playing.

Play is conducted in an alert, active, but relatively nonstressed frame of mind. This final characteristic of play follows naturally from the other four. Because play involves conscious control of one's own behavior, with attention to means and rules, it requires an active, alert mind. Players have to think actively about what they are doing. Yet because play is not a response to external demands, and because the activity is experienced as taking place outside of the real world, and because attention is not focused on real-world consequences, the person at play is relatively free from pressure or stress.

The mental state of play, or at least one variety of that state, is what Mihaly Csikszentmihalyi (1975a, 1975b, 1990) has labeled as *flow*. Attention is attuned to the activity itself, and there is reduced consciousness of self and time. The mind is wrapped up in the ideas, rules, and actions of the game and relatively impervious to outside distractions. Flow, as discussed later in this chapter, is one of the central concepts of positive psychology.

Csikszentmihalyi contends that flow occurs not just in play, but I would suggest that all activities conducive to flow are, to a considerable degree, playful, whether we call them play

or not. To be in flow you must be controlling and directing your own actions, you must be focused on means more than ends (even if the ends are ultimately important to you), you must be following a set of mentally held rules, and you must to some degree have separated yourself from other concerns of the real world around you. All that makes it play.

CONCEPTS AND THEORIES IN HUMANISTIC AND POSITIVE PSYCHOLOGY PERTAINING TO PLAY

The rest of this chapter lists and describes some of the theories and concepts focused upon by humanistic and positive psychologists that are most clearly relevant to an understanding of play. It is aimed at two audiences. To play scholars I suggest that you can gain insights about play and its significance to human well-being by delving into the humanistic and positive psychology literature, even if the term *play* doesn't occur in that literature. I'm listing some of the topics to search for. To humanistic and positive psychologists, I suggest—along with Pearson et al. (2008)—that an understanding of optimal human functioning would benefit from more explicit attention to play and from delving into some of the classic and contemporary writings about play.

Self-actualization. Self-actualization has been the central concept of humanistic psychology since its founding. In *Motivation and Personality*, Maslow (1954, 1970) proposed a scheme for arranging human needs, or motives, in a hierarchy, from those that are biologically most urgent (most immediately related to survival) at the bottom on up to those that are less urgent but nevertheless essential to human thriving at the top.

At the lowest level in his hierarchy are *physiological needs*, the needs for air, water, and food. At the next level up are *safety needs*, the need to protect oneself from dangers in the environment, such as predators or cliffs one might fall over. At the third level up are *attachment needs* and *belongingness needs*, the needs for love and acceptance from close others. At the fourth level are *esteem needs*, the needs to feel competent and respected by others and by oneself. Finally, at the highest level are *self-actualizing needs*.

In Maslow's view, the self-actualizing needs encompass the needs for self-expression, creativity, and a "sense of connectedness with the broader universe." Maslow suggested that a person can focus on these higher needs only if the lower ones, which are more immediately linked to survival, are sufficiently satisfied that they do not claim the person's full attention and energies.

Rogers (1963, 1977) also wrote of self-actualization. He considered it to be a manifestation of the drive for psychological growth and compared it to the growth process in plants. Nobody can tell a tree how to grow; its growth potential lies within itself. He held that actualization of a person, like optimal growth of a tree, requires a fertile environment, but the direction of growth and the ways of using that environment must come from within the organism.

On the basis of Maslow's and Rogers's descriptions of self-actualization, I have elsewhere proposed that the self-actualizing drives might be reconceptualized, from a biological, evolutionary perspective, as *educative drives* and include the drives to play, explore, and create (Gray, 2011). Playing, exploring, and creating can lead to the development of skills, knowledge, and artifacts that help one later in such endeavors as obtaining food, fending off predators, attracting mates, and securing the goodwill and protection of the community—even if the activities were not consciously carried out for such purposes.

From this perspective, self-actualization is not in any ultimate sense "higher" than the other needs, but is part of the long-term way of satisfying those needs. This way of looking at self-actualization may remove some of the poetry that humanistic psychologists like to bring to

their writings, but it adds to the scientific credibility of the concept. Play theorists, going as far back as Karl Groos (1901) have contended that play promotes the development of physical, social, emotional, and intellectual skills in children, and a growing body of research supports those contentions (reviewed by Gray, 2013a). Self-actualizers, as described by Maslow (1971), appear to be people who continue to play and explore, and thereby to grow, throughout adulthood.

The prominent play theorist Brian Sutton-Smith, who tends in much of his writing to be skeptical of attempts to pin play down to specific purposes (e.g., Sutton-Smith, 1977b), has nevertheless proposed what he calls an *adaptive potentiation* theory of play, suggesting that even play that seems most removed from real-world ideas, skills, and rationality may promote useful psychological growth. In elaborating on this idea, he wrote (Sutton-Smith, 1977a, p. 236):

Play does not directly prepare, but rather preadapts. That is, play gets responses ready, but does not decree that they shall ever be used beyond play itself. Play potentiates responses rather than prepares them. . . . The player cannot experiment with his potential future unless he feels completely free to do whatever he wishes to do. He must feel unconstrained by everyday requirements. He must have the freedom to be ridiculous or inventive. Unless one feels such personal freedom it is difficult to try out all the response combinations and response permutations that real experimentation requires. . . . The freedom to be irrational gives one the greatest possible freedom to be oneself (exploring all personal permutations). The freedom to indulge the opposite is a cognitive activity, which liberates thought.

It seems clear to me that the research conducted by Maslow and other humanistic psychologists on the characteristics of highly self-actualizing people adds support to Sutton-Smith's and other play theorists' ideas about the value of play for human psychological growth. And vice versa, research on play adds support and meat to the concept of self-actualization. A key concept underlying it all is personal freedom.

Self-determination and self-control. The abilities to choose and control one's own actions head the list of identifying characteristics of a person at play, and those same abilities are at the top of the list of characteristics of a self-actualizing person, as described by Maslow and Rogers. Within the tradition of positive psychology, the most prominent researchers focusing on these constructs are Edward Deci and Richard Ryan, who have developed a conceptual framework for research and thought that they refer to as *self-determination theory*, or SDT.

The theory proposes, based on bodies of empirical research, that human beings have three fundamental psychological needs: *relatedness*, *competence*, and *autonomy* (Ryan & Deci, 2000). Although Ryan and Deci don't say this in the articles by them that I have read, these needs seem to correspond with the three highest levels of Maslow's needs hierarchy: the needs for belonging, esteem, and self-actualization. The need on which the theory focuses most attention is autonomy.

Autonomy, or free will, or free choice in behavior, is a concept that has always posed a problem for scientific psychologists (and for philosophers as well). It seems to defy the hard-nosed scientific assumption that everything has a cause that, ultimately, can be described in material terms (such as in terms of genes, environmental stimuli, or neuronal firings in the brain, in the case of behavior). Skinner (1971) argued most strongly and famously against the concept of autonomy, and some psychologists in the more recent cognitive tradition have also (see Ryan & Deci, 2006, for a review). In response, Ryan and Deci (2006) argue that autonomy is *phenomenologically* very real; that is, it is a very real aspect of people's conscious experience of what motivates their own behavior.

According to Ryan and Deci, people everywhere, in all cultures, have a strong and relatively clear sense of when they are behaving in accordance with their own conscious, thought-out, reflected-upon desires and when, instead, they are behaving in response to pressures that may come from without (such as demands, threats, or compelling rewards or bribes) or within (such as ingrained habits, irrational urges, uncontrolled emotions, or addictions that might be experienced as beyond one's own control rather than aspects of the true self).

In Deci and Ryan's terminology, people are behaving *autonomously* when they feel that their inner, real self has made a free choice to behave in such and such a way, and they are behaving *heteronomously* (the opposite of autonomously) when they feel that their behavior is controlled by forces other than their true selves.

Ryan and Deci note that some critics of SDT confuse autonomy with independence. According to Ryan and Deci (2006), autonomy is not the same as independence. One can freely, autonomously, enter into a close, dependent, or interdependent relationship with others, and, likewise, one can heteronomously be forced to live or act independently. They also point out that autonomy, like so many other psychological constructs, is not all-or-none, but can exist in degrees. People can feel that a choice is partly free and partly motivated by pressures outside the self. I would suggest that the *most* autonomous variety of behavior is pure play and that all autonomous activities are experienced as at least to some degree playful.

A common research strategy in the SDT framework is to create experimental conditions conducive to the experience of either autonomy or heteronomy and assess their consequences for behavior and experience. Another strategy involves asking people about their degree of autonomy in various situations and then examining behavioral and experiential correlates of those reports. A third strategy is to identify naturally occurring conditions that foster or inhibit autonomy (such as autonomy-enhancing schools versus highly controlling schools) and examine effects of these on people's behavior and experiences.

Ryan and Deci (2006) report that hundreds of such studies have been conducted and that they reveal a wide variety of positive effects and correlates of autonomy. Autonomy has been reliably related to improved performance on a wide variety of tasks, especially those involving creativity or mental flexibility; to improved interpersonal relationships; and to measures of psychological well-being, resilience, and life satisfaction (all reviewed by Ryan, Deci, Grolnick, & LaGuardia, 2006).

Surveys of workers, conducted by sociologists independently of SDT, have revealed that people most enjoy their employment if it is (a) complex rather than simple, (b) varied rather than routine, and (c) not closely supervised by someone else (Galinsky, Bond, & Friedman, 1993; Kohn, 1980). Melvin Kohn (1980) refers to this much-desired constellation of job characteristics as *occupational self-direction*. A job high in this characteristic is one in which the worker makes many choices and decisions throughout the day and structures his or her own ways of solving the problems that must be solved.

Research suggests that jobs of this sort, despite (or maybe because of) their high demands for skill and mental effort, are for most people less stressful—as measured by effects on workers' mental and physical health—than are jobs in which workers make few choices and are closely supervised (Spector, 2002).

In the terminology of SDT, such work is satisfying because it meets competency and autonomy needs. This would appear to be precisely the kind of work that people refer to when they say, "my work is play." Elsewhere, I have reviewed evidence that hunter-gatherers don't distinguish work from play and that their work (in hunting and gathering) is playful because it involves great skill (satisfies competency needs), is always self-directed (satisfies autonomy needs), is generally conducted socially with friends (satisfies relationship needs), and is not

tied directly to any system of rewards or punishment (the gains from hunting are shared equally across the whole band, regardless of who made the kill) (Gray, 2009).

Although research within the SDT framework has generally not focused directly on play, an exception is a series of studies of video game play (Przybylski, Rigby, & Ryan, 2010). These studies revealed that video gamers were most attracted to, and most pleased by, games that satisfied their autonomy and competency needs—that is, games that permitted a wide range of choices of goals and strategies and were optimally challenging. Violent games were preferred only to the degree that they provided more opportunity for autonomy and competency satisfaction; when that was controlled for, the preference for violent games disappeared.

The researchers pointed out that video games may also be played to satisfy relationship needs, as players interact with others both within the game (in online games) and about the game (as they discuss strategies and experiences with friends). Evidence for that can be found in other studies, conducted by researchers who did not have SDT specifically in mind (Olson, 2010; Yee, 2006).

Researchers have also examined factors that promote the development of a high capacity for autonomous self-control. One reliable finding is that children who have autonomy-supportive parents are more intrinsically motivated and capable of self-control than are children with more controlling parents (Grolnick, Deci, & Ryan, 1997). More recently, a correlational study revealed that young children who, as assessed by parents' reports, were permitted more free play—that is, more time to do as they choose rather than engage in adult-structured activities—performed better on a standard test of self-directed executive functioning than those who had less free time (Barker et al., 2014).

The test, validated in other studies, was designed to assess the degree to which a person is capable of organizing his or her own behavior in a rational, self-controlled, as opposed to random manner. The finding fits well with Vygotsky's contention, noted earlier, that play is how children learn to control their behavior in accordance with self-generated or agreed-upon rules rather than behave impulsively. It is also consistent with research showing positive correlations between pretend play and emotion regulation in young children (e.g., Gayler & Evans, 2001). Self-control includes the ability to maintain some control over one's own emotions, which, if uncontrolled, can override autonomy.

Intrinsically versus extrinsically rewarded activity. One of the defining characteristics of play is that it is intrinsically motivated. Intrinsic motivation is also a central concept in SDT, and in all of humanistic and positive psychology. An activity is intrinsically motivated to the degree that it is done for no end or goal outside of itself. According to SDT, autonomy is highest when the motivation for an activity is entirely intrinsic. The theory, however, also holds that extrinsically motivated activities can be more or less autonomous, to the degree that the sought-after extrinsic goal is valued and consciously chosen by the reflective, deciding self (Ryan & Deci, 2000).

Many research studies have compared the task performance of people who are in conditions designed to raise or lower the level of extrinsic relative to intrinsic motivation. Among these are studies conducted by Theresa Amabile (1996) on conditions that affect creativity. In a typical experiment, Amabile would ask groups of people—sometimes children, sometimes adults—to make a collage, or paint a picture, or write a short story or poem. Some groups would simply be asked to do this for their own enjoyment, and others would be presented with some incentive for doing it.

The incentive might be the promise of a reward for good performance, or a statement that the product would be entered into a contest to see which was most creative, or simply the statement that the work would be evaluated to judge its creativity. Then, all the products

would be evaluated for creativity by a panel of judges, who were blind to the experimental conditions. The general finding, over all of these studies, was that creativity was highest for those who were given no incentive at all for being creative.

According to Amabile's interpretation, the addition of extrinsic incentives worsened performance because it led the participants to focus on the goal, which interfered with their ability to become completely absorbed—to lose themselves—in the creative task. Amabile (2001) also pointed out that writers and artists known for their highly creative products often say that they must forget about extrinsic ends, such as royalties or good reviews, in order to be creative.

Similar research has revealed that, in general, extrinsic reinforcement improves performance on boring, well-learned, routine, or intellectually easy tasks, where the primary constraint is willingness to put in the effort, but worsens performance on challenging tasks that require creativity, insight, new learning, or problem solving (Aiello & Douthitt, 2001). For the latter group of tasks, the challenge itself is incentive enough, and any additional incentive is distracting.

Other experiments have shown that extrinsic rewards not only reduce creativity, but can also undermine intrinsic interest in the rewarded activity. In the most famous such experiment, preschool children who enjoyed drawing with felt-tipped pens were asked to draw a picture with such pens for a visitor (Lepper, Greene, & Nisbett, 1973). Those in the *expected-reward* condition were told that they would be given a prize for doing so; those in the *unexpected-reward* condition were not told in advance about the prize, but were given it later; and those in the *no-reward* condition were neither promised a reward nor given one.

The main findings were that those in the expected-reward condition drew *worse* pictures than those in the other two conditions, and they also spent much less time drawing with felt-tipped pens in subsequent free-play sessions than did those in the other groups.

The researchers interpreted these findings as evidence that the expected reward had caused the children to reframe their view of drawing with felt-tipped pens. They came to see it as something one does for a reward, rather than something done for fun, which led them to put less effort into what they drew (just enough effort to get the reward) and to avoid that activity, later, when no reward was available. One way of saying this is to say that the reward caused them to see such drawing as *work* rather than *play*. Many other experiments, with adults as well as children, have produced similar results, using a wide variety of activities and rewards (Deci, Koestner, & Ryan, 1999; Lepper & Henderlong, 2000).

The broaden-and-build theory of positive emotions. To a considerable degree, positive psychology is the study of positive emotions—how they are experienced, the conditions that produce them, and the effects they have on long-term as well as immediate well-being. Barbara Fredrickson (2001, 2006) has developed a general theory of positive emotions that encompasses a large portion of research findings in positive psychology. She calls it *the broaden-and-build theory of positive emotions*.

According to Fredrickson's theory, positive emotions broaden our perception and range of thought, allowing us to see what we didn't see before, to put ideas together in new ways, and to think of novel ways of behaving. In contrast, negative emotions narrow our perception and thought to focus almost exclusively on the most salient source of distress: the fearsome tiger, the hated enemy, the anxiety-provoking test, or the losses and failures that have contributed to our depression.

Negative emotions also, generally, activate our autonomic arousal system, which facilitates performance on tasks that require a burst of physical energy and a narrow focus on the goal, but interferes with creativity, learning, meaningful reflection, or the performance of nonrou-

tine actions. The theory also proposes that positive emotions promote long-term psychological and physical growth and healing, while negative emotions interfere with growth and healing.

Fredrickson's theory proposes that all positive emotions expand one's awareness and range of thought, but different positive emotions promote different varieties of behaviors, which make use of such expanded capacities in different ways. In her words (Fredrickson, 2006, p. 89):

Joy, for instance, creates the urge to play, push the limits, and be creative, urges evident not only in social and physical behavior, but also in intellectual and artistic behavior. *Interest* creates the urge to explore. *Contentment* creates the urge to sit back and savor current circumstances and integrate them into new views of self and world. *Love*—an amalgam of joy, interest, and contentment centered on the relationship—creates recurring cycles of urges to play with, explore, and savor our loved one.

Fredrickson's mention of the relationship of joy to play and of the building power of play is among the few instances, in the positive psychology literature, where the "p" word is not avoided. But she doesn't use the word very much.

Fredrickson (2006) notes that some of the best support for the power of positive emotions to broaden perception and thought comes from the research of Alice Isen and her colleagues. In a long career, Isen performed many experiments in which she manipulated participants' moods and then tested them on one or another cognitive task (Isen, 2001). The biggest effects she found tended to be on insight problems, that is, on problems whose solution depends on viewing the problem objects in a new and unusual way.

In one of her most famous experiments, Isen induced a positive mood in some of the college student participants by showing them five minutes of a slapstick comedy film just before testing them, whereas others saw five minutes of a serious film about mathematics or no film at all. Then she tested their performance on *Duncan's candle problem*. In this classic insight problem, participants are given a small candle, a book of matches, and a box of tacks and are asked to attach the candle to a bulletin board in such a way that it can be lit and will burn properly, using no objects other than those they were given.

The trick to solving the problem is to realize that the tacks can be dumped out of the box and then the box can be tacked to the bulletin board and used as a shelf on which to mount the candle. In the typical test situation, the great majority of people fail to solve this problem within the allotted time. They fail to see that the tack box can be used for something other than a container for tacks. The remarkable result of Isen's experiment was that 75% of the students who had watched the comedy film solved the problem in the allotted time, compared to only 20% and 13%, respectively, in the other two groups (Isen, Daubman, & Nowicki, 1987).

Isen doesn't identify the particular type of positive mood she induced with the slapstick comedy; she simply calls it a positive mood. Elsewhere I've suggested that the mood she induced in this and other experiments might best be called a *playful* mood (Gray, 2011, 2013a). A slapstick comedy, it would seem, is an almost ideal stimulus to make a person feel playful. In some of her other experiments, Isen induced the positive mood by giving participants a little present of candy before testing them, which would also likely create a spirit of play. Watching a slapstick comedy, or being given candy, would, I suggest, make participants think, "Oh, this isn't a serious test; we're just having fun here, we're just playing, like children."

The type of positive mood might well matter in this sort of experiment. Whether one calls it a playful mood, or a joyful mood as Fredrickson probably would, the mood induced in Isen's experiments appears to be one that is likely to promote play. In play, the focus is on

means rather than ends, evaluation anxiety goes down, imagination goes up (so a tack box can be a shelf, just as a broomstick can be a rocket ship), and the result is creative thought, relatively unconstrained by conventional ways of perceiving and thinking. I wonder what would happen if Isen's experiments were repeated, but with positive mood inducers that would not be so likely to induce a spirit of play?

Other experiments, not generally referenced in the positive psychology literature or in reviews supporting the broaden-and-build theory, have shown that actual play before testing can improve performance on tests of creativity and other cognitive abilities. For example, ten minutes of imaginative play improved children's abilities to think of many novel uses for familiar objects (Dansky & Silverman, 1973); twenty-five minutes of play with salt-dough improved children's performance on a test of artistic creativity (Howard-Jones, Taylor, & Sutton, 2002); free play with art materials, but not a structured art class, improved children's performance on Torrence's Tests of Creative Thinking (Berretta & Privette, 1990); and playing a computer pinball game improved college students' performance in an introductory computer class (Pauli, May, & Gilson, 2003).

Familiarity with Fredrickson's broaden-and-build theory of positive emotions might lead play researchers to develop, as a subtheory, a broaden-and-build theory of play. Such a theory could integrate existing play research, and generate new research, toward understanding the specific ways by which a playful frame of mind has such short-term effects as enhancing creativity and imagination and such long-term effects as building intellectual, social, emotional, and physical capacities. Conversely, familiarity with the full body of play research and theory would, I think, contribute significantly to the broaden-and-build theory within positive psychology.

Flow. In 1975 Mihaly Csikszentmihalyi (1975a, 1975b) published two works in which he introduced the concept of flow. One was a book entitled *Beyond Boredom and Anxiety: The Experience of Play in Work and Games*, and the other was a shorter version of some of the same work, published as an article entitled "Play and Intrinsic Rewards" in the *Journal of Humanistic Psychology*. Clearly, at that time Csikszentmihalyi was thinking about flow very much in relation to play.

In those initial works, Csikszentmihalyi explained how the concept of flow came out of his extensive interviews of adults who were deeply involved in specific forms of play—including rock climbers, chess players, dancers, basketball players, and composers. These were all amateurs, engaged in their activities for pleasure, not for material reward or fame. The primary question that Csikszentmihalyi (1975b, p. 42) sought to answer was, in his words, "Why is play intrinsically rewarding?" In other words, what are the elements of a person's experience, in play, that make a person say, "that was fun"?

Csikszentmihalyi's analyses of the interviews, toward answering that question, led him to conclude that "the qualities which make these activities enjoyable are the following: (a) a person is able to concentrate on a limited stimulus field, (b) in which he or she can use his or her skills to meet clear demands, (c) thereby forgetting his or her own problems, and (d) his or her own separate identity, (e) at the same time obtaining a feeling of control over the environment, (f) which may result in a transcendence of ego-boundaries and consequent psychic integration with metapersonal systems" (1975b, p. 41).

It is interesting to compare this summary to defining characteristics 1, 3, and 4 of play listed previously in this chapter. Characteristic 1, that play is self-chosen and self-directed, corresponds with the idea that part of the pleasure of play lies in the "feeling of control over the environment" (item e in the summary). Characteristic 3, that play is guided by rules (or that it always has structure), fits with the idea of "clear demands" that the player "can use his

or her own skills to meet" (item b in the summary). Characteristic 4, that play is imaginative (i.e., involves a sense of removal from the real world), fits with the idea that the "person is able to concentrate on a limited stimulus field . . . thereby forgetting his or her own problems and his or her own separate identity, . . . which may result in a transcendence of ego-boundaries" (items a, c, d, and f in the summary).

Of course, characteristic 2 in the definition, that play is intrinsically motivated, was implicit in Csikszentmihalyi's work; he chose the participants for his study precisely because they were intrinsically motivated to engage in the activities.

Apparently, we humans are designed in such a way that there is a certain constellation of experience that we naturally enjoy; we experience that constellation in play, and Csikszentmihalyi calls that experience "flow." The mind at flow is fully focused on the task at hand and oblivious to other concerns, and the person feels in control.

In further analyses, Csikszentmihalyi found that people are most likely to experience flow when there is an appropriate match between their level of skill and the difficulty of the task (provided, of course, that the task is also intrinsically interesting to them). When a task is too easy relative to their skill, people experience boredom, not flow, and when the task is too difficult relative to their skill, people experience anxiety, not flow. Reflecting back on self-determination theory, we might say that Csikszentmihalyi's findings are a confirmation of SDT's claim that people are naturally motivated to seek activities that satisfy autonomy and competency needs.

In subsequent research, Csikszentmihalyi expanded his study of flow beyond the realm of activities that people normally call play. He interviewed people about their daily lives, to find out if and when they experienced flow. He also developed what he called an *experience sampling method*, in which he fitted people with beepers programmed to beep at random times of day and asked them to fill out a two-page form—about what they were doing, who they were with, how challenged they felt, how skilled they felt, and their emotions on various dimensions—whenever the beeper sounded.

Csikszentmihalyi was particularly interested in the experience of flow at work. He found that the same kinds of conditions and experiences that occur in activities people call play can also occur at work—when people become so absorbed in the process of their work that they forget about the extrinsic rewards, demands, and evaluations; forget about the clock; and forget about other day-to-day concerns. Csikszentmihalyi found that when people enter this state at work, they say they love their work.

Not surprisingly, people in jobs that Melvin Kohn would refer to as high in occupational self-direction experienced flow more often than people in other sorts of jobs, but Csikszentmihalyi (1990) found that even in the most seemingly boring jobs some people find ways to experience flow.

For example, one assembly line worker made a game out of completing his assemblies as fast as possible, even though the job didn't demand it. He worked out innovative techniques to speed up the assembly, and he challenged himself by keeping records and striving always to decrease his average time per unit. He said it was like being in the Olympics. He realized, however, that at some point he would reach a limit, beyond which he could not improve, and the job would get boring, so he was also taking night classes in electronics to train for a job with more complexity.

In one large-scale experiment using the experience sampling method, Csikszentmihalyi and Hunter (2003) found that children of middle-school and high-school age experienced the *least* flow, and their lowest levels of happiness, when they were in school—a sad (but not

surprising) commentary on our school system, when one considers the evidence that the flow state is optimal for learning.

By the time of publication of his very popular book, *Flow: The Psychology of Optimal Experience* (1990), which made the flow concept well known among psychologists and the general public, Csikszentmihalyi was no longer explicitly equating flow with play. The “p” word was not completely avoided in the 1990 book, nor in the subsequent 1997 book, but its frequency was greatly diminished.

Instead of play, Csikszentmihalyi increasingly used the term *autotelic activity*. Built from the Greek roots *auto* (self) and *telos* (goal), *autotelic* refers to an activity engaged in for no goal outside of itself. He also used the term *autotelic personality* to describe those people who most actively seek and engage in autotelic activities and thereby experience flow (Csikszentmihalyi, 1990, 1997). These appear to be the same kinds of people that Maslow referred to as self-actualizers and Ryan and Deci refer to as autonomous.

Csikszentmihalyi could, in his later writing, have expanded his flow concept to the workplace by saying that the playful state of mind can occur there, too, as he did even in the subtitle of his first book (“The Experience of Play in Work and Games”). Perhaps by the time he wrote his later books he had decided it was easier to coin a new term than to try to expand people’s understanding of the meaning of play. Or perhaps he reasoned that people would take the concept of flow more seriously if it were tied to a serious, scientific-sounding word like *autotelic* than if it were tied to *play*. I hate to admit it, but if he did assume that, he may well have been right.

CONCLUSION

The writings in humanistic and positive psychology make remarkably little use of the word *play*, but if one looks beyond the word to the concept, one finds that humanistic and positive psychology are largely about play, broadly defined. They are about activities that are intrinsically motivated, controlled by the person engaged in them, and structured, yet creative and imaginative—and that is the definition of play. Humanistic psychology originated from the idea that people do not do things just to receive extrinsic rewards or avoid punishments; people seek to control and structure their own behavior, and they seek out intrinsically rewarding activities. Positive psychology has continued this tradition, while embracing methods and concepts of modern cognitive psychology.

Humanistic psychology was founded largely on the concept of *self-actualization*—that psychologically healthy people naturally seek and engage in activities that expand their own capacities and connect them to the larger world. Positive psychologists have likewise focused on people’s drives to make their own decisions and expand their own capacities. *Self-determination theory* posits that people are internally motivated to be in charge of their own behavior (the autonomy motive), to improve their skills (the competence motive), and to connect with other peoples (the relatedness motive). It posits further that people perform better, on many kinds of tasks, and are happier when they feel in control than when they feel controlled. The feeling of control is part of the essence of play.

Research on creativity has shown that people are most creative when they engage in an activity for its own sake, rather than for an extrinsic reward. Fredrickson’s *broaden-and-build theory of positive emotions*, which encompasses a large body of research findings in positive psychology, proposes that positive emotions broaden perception and thought and promote psychological growth and healing. The theory is consistent with a growing body of research, largely from outside of positive psychology, indicating that play can have all of these effects.

Csikszentmihalyi developed his concept of *flow* initially to describe the experience produced by deep engagement in play. His subsequent research showing that flow can be experienced at work can be interpreted as evidence that productive work can be play, when the work is intrinsically motivating and challenging and the worker has sufficient skills to meet the challenges.

A fundamental theme here is that people, by nature, seek out and engage in activities in which they are in control. These are often activities that expand their abilities, connect them with others, and make themselves and others happy. Such activities have the characteristics of play, and, whether we call them play or not, the findings that they promote psychological growth fits with the idea that the inborn, powerful drive to play came about, in evolution, because of its educative, growth-promoting consequences.

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