Play in Evolution, Culture, and Individual Adaptation: Implications for Therapy
(skill, development, theory)

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In this paper human play is examined from the perspective of its role in evolution. A model of social evolution is proposed to extend the model of biological evolution and to demonstrate the central role of play in the social-evolutionary process. Since in evolution play is a mechanism for its process, it demands species members who are playful. Thus, man is a player by virtue of species membership and the evolutionary pathway of the species. The implications of this deep-seated characteristic of playfulness are discussed in terms of human development. Finally, a set of principles is derived from the evolutionary-developmental characteristics of play. Application of these principles in clinical practice is demonstrated and discussed.

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Until recently, few scholars and therapists had systematically studied the topic of play (1). It is an irony that play is so pervasive in human lives and yet relatively absent from the knowledge base of social science and therapies concerned with human behavior. However, the lack of serious attention to the topic of play is understandable within the context of the cultural and professional attitudes toward play. Modern Western culture views adult play as frivolous and juvenile. One source of the pejorative attitude toward play is our cultural values concerning time. Work time is exchanged for money and has a precise value. Time is tied to productivity and to waste time is to literally throw money away (2). Play, from the financial point of view, is a waste of time. In our cultural framework, it is a nonproductive diversion from the real task of life, which is to produce.

The cultural attitude toward play is subtly shared by professionals as well. For instance, occupational therapists have functioned largely in hospitals where the serious behavior and highly technical tools of the physician rank highest as symbols of prestige. It is not surprising that occupational therapy's early concern for play and the use of playful modalities should have eroded over the years as therapists became embarrassed about a therapy that did not appear serious and technical (3). Similarly, in the academic community, esoteric topics of inquiry and complex tools for analysis enhance the scientist's status. Social scientists have, in the past, turned their attention or concerns toward play at the cost of sacrificing prestige in their discipline (1).

Theory and clinical technique centered on play are beginning to emerge. Play is now becoming recognized as an important area of human behavior worthy of the attention of scholars and therapists.
Play has only recently become a legitimate topic of study. An interdisciplinary body of knowledge concerning the topic of play is accumulating and significant contributions have been made by both occupational therapy and psychology (4, 5).

The purpose of this paper is to present a theoretical basis for understanding the role of play in human development and functioning. Evolutionary, cultural, and ontogenetic perspectives of play will be discussed, and the implications of these perspectives for therapy will be outlined.

Play in Evolution and Culture

Theoretical Perspective. On the face of it, play does not seem to serve any immediate adaptive function. No physiological drives of the organism appear to be satisfied, so that it is quite easy to dismiss play as an unimportant psychological behavior—and, in fact, some have done this (6). However, this overlooks both the survival value of play and its possible evolutionary contributions. Evidence suggests that play is an important factor in the evolution of species, and specifically, the evolution of humans. The importance of play is a consequence of the relative importance of cultural factors in human evolution.

Humans are cultural animals. Unlike other animals whose adaptive freedom is dictated solely by their biological heritage, humans are endowed with a neural plasticity and sophistication that enables them to transcend purely biological constraints. Other species must rely on morphological alteration to adapt and survive in a changing environment; humans, however, adapt by changing their symbols and behavior and by making tools that, as artificial extensions of their bodies, serve as self-created morphological transformations (7).

Consequently, human survival is contingent upon the adaptive response of collective mankind, that is, Man's cultural response. Thus, to fully understand humans, it is important to understand the principles of cultural change and development that guide both collective and individual adaptation.

In biological evolution, one can identify important functional principles that provide insight into the operation of cultural evolution. In biological evolution, there is a mechanism that guarantees the continuity and integrity of the biological form across generations. The details of the process are still a mystery, but we know that biological continuity across generations is controlled by the genetic action of DNA and RNA.

A second aspect of biological evolution is the mechanism responsible for generating biological diversity. Through diversity, a species establishes a broad array of forms that serve as prototypes for future developments. This biological diversity is produced by genetic mutations. Although the issue is unresolved, this mutation appears to include both random and systematically acquired changes (8). The result is the availability of new biological traits that may or may not be selected.

Third, the success of a new biological form is determined by its success within the environment; that is, Darwin's survival of the fittest. Survival of a species and the form it takes in its adaptation are contingent upon the types of mutant forms generated, the success of these forms in their struggle in the environment, and the survivor's ability to transmit these new developments to the next generation of the species.

General Systems theorists have pointed out that more complex emergent systems often preserve the patterns or processes of lower systems; in this way nature parsimoniously uses laws to govern its processes (9). These theorists have pointed to the utility of using knowledge about the processes of lower-level phenomena to begin to understand higher-level phenomena. In this vein it is reasonable to assume that the process of cultural evolution should bear at least a metaphorical or analogical resemblance to the less complex process of biological evolution. To extend the concepts of biological evolution to the level of culture, one must look for processes that encode or preserve cultural form, transmit it from one generation to the next, and create divergences or mutations of cultural form for later environmental selection.

As the philosopher Polanyi (10) pointed out, the cultural tradition is, in a sense, a society's genetic code. It can be codified in writing or can be imbedded in a more general and less articulated body of oral traditions, beliefs, and rituals. Like RNA, imitation is the mechanism that serves as the "messenger," only the message transmitted is behav-

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ioral and informational and not physiochemical. Through imitation, children incorporate cultural information in a unique and special way, making it their own. Studies have shown that both watching and doing can generate learning, but the latter is superior as a learning mechanism (11). Imitation combines both and not only provides the organism with more fully integrated information but also allows that information to become part of the organism itself. Like the genetic code that not only is copied by the new organism, but also is taken on as part of the organism’s underlying form, individuals take on the culture as their own when they imitate. Thus, the mechanism that would be responsible for maintaining the unity and integrity of the culture is imitation. Through imitation, the culture is able to transmit its traditions, values, and skills to each new generation.

The missing link in the analogy is the process responsible for mutation or change. Like natural selection, cultural selection can eventually determine the adaptiveness or survival of a meaning or behavioral form, but it must have something to select from in the first place. Some mechanism must account for the emergence of new and elaborated forms of human meaning and behavior. The mechanism for generating cultural diversity is play. Play may generate behavioral diversity that enhances the long-term survival capacities of a species in a similar way that genetic mutations create biological diversity that is critical for the prolonged survival of a species. The apparently inefficient play that takes apart and recombines the time-worn meanings and behaviors of a culture actually spawns the ideas and behaviors that serve as prototypes for new behavioral adaptations (12, 13).

Not all prototypes developed in play are later adopted. Play develops an array of potential behaviors, many of which may never be used in a more serious context (14). The adoption of a prototype is related, in part, to the importance of its meaning for the culture—that those prototypes that are more meaningful to the culture are more likely to be adopted.

Supporting Evidence. What this means is that, for the cultural-evolutionary process to take place, the species has required that its members inherit the capacity and propensity to play. Being players by nature, cultural members engage sufficiently in the processes of elaborating, recombining—in a sense creating—new cultural forms that can be selected for the evolutionary process. However, what is salient is that, in the course of evolution, have become players by nature. While the model of evolution just proposed is conceptual, there is empirical evidence to support it. A recent summary of the literature on nonhuman animal play concludes that play serves important adaptive functions for more phylogenetically advanced species that must be integrated into a protective social unit (15). Bruner has found a similar relationship between imitation and phylogeny and concludes that the emergence of imitation and learning by observation are related to the emergence of a more flexible form of social bonding among primates.” (11, p 691) As will be discussed, evidence suggests that the role of play and imitation in development is related to a species’ genetic dependence and social requirements; play and imitation appear to be more important for those species whose adaptive strategies require them to alter their behavior, not their biology, and whose unit of adaptation is the group, not the individual.

This shared phylogenetic history of play and imitation is not a consequence of these activities evolving and acting independently. Rather, their strengths are founded on the mutuality of their relationships. If a novel behavior is to be adapted and used by other group members, they must be capable of imitating the behavior. Furthermore, a great deal of play includes the imitation of existing behaviors, and it is within this context that novel behaviors are often fashioned from culturally accepted behaviors (16). This guarantees that the new behaviors will have culturally relevant meanings and also makes it more likely that the behavior will be imitated by other group members. Thus, play and imitation gain their strength from their interdependence. Play without imitation would create idiosyncratic behaviors that would die with the individual, whereas imitation without innovative play would perpetuate maladaptive, ritualistic, and inflexible behavior routines.

Observational evidence supports the model of play, imitation, and cultural change. Investigators closely examined a colony of isolated Japanese monkeys and introduced new foods, such as potatoes and rice, into their environment to study their effects on the habits of the monkey colony (17). The colony developed the skill of using water to wash off the potatoes and rice. These behaviors were first discovered serendipitously by one of the younger troop members—Imo—and the skill was gradually assimilated by the rest of the troop through imitation. The way in which the imitated behavior spread throughout the troop is worth noting. The behavior was first copied by Ivo’s age mates and then by younger mon-
keys and older, juvenile monkeys. Adult females, in turn, learned the skill from their youngsters. The adult males were the last to learn and many never developed the skills at all.

Other changes resulted from the introduction of new food into the monkey's habitat. The new food drew the monkeys to the beach, which resulted in their playing in the water on hot days, and many of the juvenile monkeys learned to swim. Several monkeys began to dive for seaweed on the ocean floor, and one monkey swam to a neighboring island.

This is the most carefully documented example of the interrelationship of environmental change, exploration, play, and the development and spread of a new "tradition." A similar process among birds has been reported, whereby undirected behaviors generated in play are later used in goal-directed activity, and these behaviors are subsequently imitated by other flock members (13). Research with captive primates also demonstrates that playful use of an object is an important precursor to later insightful use of the object as a tool (18).

Animal studies also provide important insights into how the evolutionarily inherited capacity for play impacts on the course of development of species members. The Harlows demonstrated that the social play of the young is intimately meshed with their physical growth and the stages of maternal affection (19). As the young grow, the mother relinquishes her vigilance, and the monkeys engage in increasingly sophisticated peer play. Peer play enables the monkeys to develop the necessary social and emotional skills required for successful adult social functioning. Young monkeys deprived of peer play become incompetent adult monkeys; without play, the monkeys cannot successfully complete the normal course of ontological development (20).

Studies with mice deprived of social interaction and play, however, fail to replicate the deleterious effects found for monkeys (21). While at first such evidence would appear to discredit the Harlow findings, it actually has led researchers to further refine their understanding of the processes of play and play deprivation. It appears that mice do not suffer from isolation and lack of play because mice do not play to begin with. Further, rats, who do engage in social play, demonstrate the similar damaging consequences when deprived of play in social isolation experiments (21). Rats who do not play are poorer problem solvers and once they have learned a behavior they find it more difficult to unlearn it and take on a new behavior.

These experiments suggest that attention be paid to the differences between species that play naturally and those that showed less need for play. What emerges from such an examination is the finding that species that play have the capacity to learn and the capacity for flexibility in behavior as opposed to genetically programmed "know how." This is why the playful species suffer from play deprivation. They inherit the capacity, but not the actuality, for competent behavior. In order for that capacity to be actualized, the organism must play.

These studies of play within primitive nonhuman cultures and with members of lower species lend more empirical credence to the above model of cultural evolution. The question is whether these principles hold for human culture. Human culture is much more complex than these "nonhuman" cultures, precluding the opportunity for similar experimental substantiation. Phylogenetically, play and imitation increase with increasing reliance on behavioral-social adaptive strategies. Humans represent the apex of this trend, and it is likely that whatever functions are served by play and imitation for less complex species are also served, but more so, for humans.

Humans' inherited capacity for culture demands that they become a part of the culture in order to survive. Unless the human organism is integrated into the cultural matrix, it is not a viable organism. Individual survival requires acquisition of a range of cultural responses, a concept long recognized from the perspective of social requirements for individual participation in a social unit. However, an even more compelling requirement for humans to acquire cultural behavior for survival can be found in their biological makeup. As the anthropologist Geertz points out:

"Man's nervous system does not merely enable him to acquire culture, it positively demands that he do so if it is going to function at all. Rather than culture acting only to supplement, develop, and extend organically-based capacities logically and genetically prior to it, it would seem to be ingredien t to those capacities themselves (22, p 55)

That is to say, in the course of using cultural adaptation for its self-perpetuation, the species has evolved traits that require its members to be cultural. In Lewin's words, "because it was an integral part of becoming human, culture is an integral part of being human." (23, p12) Humans are not only the most cultural of...
animals, but also the most avid players. And in playing they become human.

Play and the Individual
The previous section proposed a model of cultural evolution and demonstrated how evolutionary trends resulted in the importance of play for members of the human species. The purpose of this section is to build upon that conceptual argument and examine how play functions during childhood, adolescence, and adulthood.

Play makes important contributions to those behaviors and abilities unique to humans and several of the higher primates: namely, tool use, language, and culturally derived social skills. In all of these three phenomena, there is an underlying similarity: the existence of rather complex means-ends relationships for the completion of an end task or goal; in language, the word is the means for the expression of meaning, which is the end; and in social skills, the individual's bodily movements are a means of communicating social meaning. The development of these abilities may well share a similar process, of which play is an important factor. This process can be illustrated through several examples.

If one were going to use a tool, such as a hammer to drive a nail, to use it successfully one must be focally aware of the nail (the end), while only subsidiarily aware of the attributes of the hammer, such as its weight, texture, and balance. If one were to shift attention to the hammer, he or she would have considerable difficulty in driving the nail. Playing a musical instrument involves this same process. One cannot focus attention on the process of making music (that is, how one's fingers hit the keys of the piano) and hope to perform. The fingers' movements must be automatic, and in the service of the end of creating music. In language, one is only subsidiarily aware of the sounds of the words and the vocal movements made to produce them, while the meaning of the words is the focus of one's attention. The Russians have termed this the glass theory of language because the words themselves are transparent carriers of meaning.

A central question is how one develops these skills. One does not just one day begin to play Chopin or to recite Shakespeare. A long, arduous process of practice precedes these successful endeavors. Practice helps master the means that will later be used toward an end. It also processes skill through a hierarchy of complexity toward the end goal. For example, when learning language, one must first master the vocal apparatus that is the means for producing sound, and then must learn to associate sound with meaning. This has become so automatic, it is difficult to recognize. However, when trying to learn a new language, one becomes painfully aware of the mechanisms for producing sounds, and must focus on creating the sounds, which at the time lack meaning. With development, the focus shifts from the mechanisms for producing sounds to the sounds themselves, and the vocal apparatus becomes the means for the end of producing meaningful speech.

Koestler has described this process as the process of generating “holons” (25). A holon is an automatic organized response the organism has acquired. It has two basic properties: assertive and integrative. The assertive tendency of the holon is its propensity to act autonomously or on its own. For example, once the pianist sits down to play, the holon of movement asserts complex muscle patterns autonomously without the need for close attention. The integrative tendency is for the holon to subserve itself to requirements of a higher level. Thus, for instance, the pianist wishing to create a mood will find the holon of movement responding to the need for crescendos, softening the key strokes, or slowing the pattern. Practice serves to first create a holon and then by integrating it into a higher level, to create yet another higher-level holon that both depends on and can govern the lower.

In play, the individual is able to play with means that may later be used as holons in instrumental behavior. Not all of play is practice, nor is all practice play. However, the play with words, sounds, actions, objects, and social behaviors provides the opportunity to practice and consolidate behaviors. These behaviors may later be used as an instrument toward some end or one that serves as a holon to be integrated into a more complex skill. In play, the individual is able to focally attend to actions and objects free of the constraints of having to use these behaviors or objects in the service of another end. Thus, play provides not only the opportunity to create and explore novel behavior, but at the same time, it also provides the chance to solidify and consolidate new behaviors that may later be used as a means for an end. Piaget (26) was one of the first to document this practice function of play. He also noted that such practice was fun because children found pleasure in repeating something they had just learned—the sheer pleasure of functioning.

The development of language follows a similar pattern of hierarchical
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organization. It has been reported that there are two phases of infant babbling (27). The first phase can be characterized as play with the vocal apparatus used to produce sounds, while the second phase is centered on playing with (and imitating) sounds. Both hearing and deaf infants engage in the first form of babbling, but deaf infants do not proceed to the second phase. The deaf infants hear no sounds to imitate or play with, and therefore do not develop the higher order function or skills (specific sound production) into which they can integrate the holon of vocal apparatus mastery.

Once the hearing child has mastered the means of producing accurate sounds (a holon), these actions become subsidiary to—and necessary for—the play with word meanings (28). Again, the child will play with those aspects of semantics and syntax that are new to him, making them the object of focal attention in play. The old holon is integrated into a new higher-level skill that in turn will become a holon for social discourse. The child's mastery of language is an important prerequisite to his competence in social life.

These examples also point out that play changes with the evolving and changing abilities of the organism. The objects of play for infants are of little interest to older children because the older children have already mastered the skills and behaviors that the infant is elaborating in its play. The content of the older children's play reflects their efforts to master the behaviors and skills that are new and commensurate with their current abilities. Thus, play is an activity that changes with the developing abilities of the individual, and to chart the children's play activity is to begin to identify the developmental tasks the children are mastering.

These examples of the role of play in development are instances of the earlier assertion that human behavior must be in context culturally to emerge appropriately. When there is not a higher-level Gestalt into which a behavior (even a motor behavior) can be organized, it does not follow what is considered a "normal" course of human development. Ultimately, the higher Gestalts into which behavior is organized are Gestalts of cultural practice, meaning, ritual, and daily behavioral sequences. Even motor movements receive their organization by becoming instances of gestures, song-playing, hand-shaking, and the like.

Play serves to provide cultural contexts in which behaviors can be organized toward certain meanings and purposes. The value of play is that through its imaginary or quasi-reality property it can create contexts with rules and consequences that are not seriously consequential. Because the player is free to create situations and try them out and because he can do so without fear of repercussions, play is a most efficient means of organizing the ongoing development of the child. Unlike other species, the mature human does not cease to play. Play in adulthood derives its nature from the interacting nature of play and culture in evolution. As noted before, humans inherit their strong propensity to play as part of a matrix of cultural-evolutionary processes. At the same time the culture itself is supported by playful pursuits of the individual. Both the adult and the culture require play for their maintenance and survival.

It is from the cultural perspective that the need for play in adulthood can best be appreciated. The law of hierarchical organization that rules the process of development also determines maturation into adulthood. Human beings in the course of maturing organize their behavior more and more under important cultural meanings that we call values. Just as motor movements are integrated into gestures, patterns of everyday behavior are also integrated into value systems (29). Organization of the everyday competence of the individual requires commitment to cultural values. Adult play serves the function of continually reaffirming and reorganizing the adult commitment to values. American culture (e.g., holiday celebrations, family reunions, church picnics, and so forth) reaffirms the American commitment to the good life and the work it takes to achieve it.

In summary, although play serves to prepare the immature individual for cultural competence and participation in social life, it also main-
tains the balance, morale, and commitment that are part and parcel of more serious adult life. Man is an incurable player. He is not only programmed for culture, but also programmed to acquire and maintain this cultural nature through playing.

Conclusion

The Implications of Play for Occupational Therapy. The major implication of this discussion for occupational therapy is that there are theoretical grounds to support the therapeutic value of play that can provide heuristic propositions for therapy. The propositions are a point of departure for development, exploration, and testing the use of play as therapy.

The major propositions that have been presented concerning play are distilled as follows:

1. Cultural evolution requires a means to change behavioral forms; it exists in the human ability to play. Thus, play is a process that produces new behavior forms.

2. In the course of evolution humans acquired not only the capacity to assimilate culture through play, but also a biological make-up requiring that they play to function properly.

3. Human skills are holons that must be organized within a meaningful (cultural) context. This organization is a hierarchy in which lower levels are integrated into higher levels. Play generates meaningful contexts in which behaviors can be tried out, practiced, and organized according to the rubrics of the context. Thus, play is an organizer of skill.

These three propositions suggest ways that play might be conceptualized as a critical element in the adaptation process of patients and as a tool for therapy, and should yield numerous heuristic strategies to guide clinical questioning and observation. It is beyond the scope of this paper to delineate all possible therapeutic implications and applications. Rather, a brief discussion will consider the implications of play for the diverse areas of physical disabilities and psychosocial dysfunction in order to demonstrate the potential of play for occupational therapy.

Play and Psychosocial Dysfunction. Persons with psychosocial dysfunction often exhibit rigid behavior patterns lacking flexibility for ongoing behavioral adaptation, or their behavior is poorly organized for the demands of the cultural context (31). Clinical observation reveals that these persons often cannot accept tasks and problems, or risks and challenges in a playful manner. Instead of playfulness, investment, and satisfaction, these individuals exhibit overriding anxiety. The propositions concerning play suggest that play both may be a factor in the problems these individuals exhibit and can have therapeutic value for them. The role of play in generating behavioral flexibility and organizing behavior into culturally acceptable patterns suggests that we examine the behavior and life histories of patients with psychosocial dysfunction for a lack of play and playfulness. The source of difficulties for many of the problems these individuals face in adapting may be linked to play deficits.

While only preliminary evidence exists, play disorders or deficits of playfulness have been found among juvenile delinquents (32), mentally retarded adults (33), autistic and retarded children (34), and emotionally disturbed children (35). Reilly proposed that when difficulties of deficits in play are identified, occupational therapy is one of the most natural situations for patients to acquire play skills and a playful attitude (4). By using the natural organizing process of play the occupational therapy clinic could be an environment for generating and organizing flexible behavior for meaningful cultural contexts. The potential gravity of a lack of play and the potential power of play to assist the adaptive process would, thus, appear to merit attention in the area of psychosocial dysfunction.

Play and Physical Disabilities. Patients with residual physical disabilities often face a situation in which past behaviors (motor behavior, skilled behavior, and social behavior) are no longer available or viable as resources for adaptation. These individuals face the monumental task of reorganizing their everyday behavior. They must generate new ways of accomplishing skilled motor acts and acquire new meanings and social behaviors for old ones no longer viable. Old interests, goals, and ways of accomplishing daily tasks or habits that cannot be pursued, must be replaced with new ones. Physically disabled persons must reorganize temporal patterns of behavior (habits) and personal images of who they are (roles) and what they plan for their future (goals).

In the face of serious disability and far-reaching life consequences, playfulness is seldom thought of as

"... the occupational therapy clinic demands... the therapist to embrace wholeheartedly an attitude of playfulness and to infuse patients with that playful attitude."
a resource for therapy. However, the propositions concerning play suggest some fruitful applications. The natural human ability to generate new meanings and new behavior forms in play may well be a major resource for occupational therapists to tap in the service of physically disabled persons. The clinic could provide a safe and relatively risk-free opportunity for patients to try out behaviors and generate new meanings. Paap, in his study of the rehabilitation of cord-injured patients, found that these persons needed ways of making their failures in therapy less consequential; they employed humor and playfulness to manage otherwise intolerable circumstances (36). It would appear that the incorporation of playfulness in a more systematic fashion could enhance therapy.

The proposition that skills require cultural contexts accompanied by playfulness implies that it is important to retain arts and crafts and other culturally meaningful activities in the occupational therapy clinic and to maintain a challenging yet playful atmosphere.

Occupational therapy clinics, then, rather than replicating the cultureless features of hospital life, should provide contexts within which everyday activities can be carried out. Therapists can then convey to patients that the clinic is a safe arena for nonserious exploration of new potentials.

The importance of considering play in therapy for both the physically disabled and the psychosocially disabled is evident. In the case of the physically disabled a gap exists between the individuals and the demands of their future and their environment. In the case of the psychosocial dysfunction, a possible lack of play may have created a similar gap between the individual and his or her life tasks. In both cases the use of play in therapy may well serve as a potent means of bridging that gap.

Eliciting Play in Therapy. The suggested applications of play in therapy rest on the assumption that it is possible to evoke and increase the play activities and playful attitudes of patients in therapy. The psychologist, Smith, noted in Reilly's book on play that the first task of occupational therapy was to "discover the contexts and levels at which the playful spark can be ignited and fanned." (37, p 7) This simple caveat for evoking play is actually a major therapeutic task.

Some helpful perspectives have been developed for the clinical elicitation of play. Berlyne's theory of play is based on the conditions for play to exist in a "just right" challenge between the person and environment (38). "Psychological safeness," "as-if" conditions, and clearly spelled out rules with limited consequences have also been identified as necessary conditions for play (39). The importance of a nurturing and playful role model has also been noted (40).

Some studies support the proposal that a carefully designed and modulated environment can increase play. Ellis and Scholtz found that play of children does increase with optimal environmental conditions as proposed by Berlyne's theory of play (41). Freyburg found that it is possible to increase the fantasy play of deprived children (42). Kielhofner found that the play of emotionally disturbed children could be increased by careful arrangement of hospital ward environments (43). Kielhofner and Miyake found that games could be managed in such a fashion that they elicited increased playfulness on the part of retarded adults (33). In these cases the factors of arousal through environmental manipulation, safeness, rules, and limited consequences, and a playful attitude by the persons interacting with the subjects were important. Thus the environmental conditions that appear to increase and elicit play are those that challenge the player while keeping the consequences of play safe, and those that provide social support when needed.

Much still remains to be found concerning how play and playful attitudes can be elicited in therapy. However, our clinical observations have led us to enthusiastically support the possibility of eliciting and enhancing play behavior. The following case example illustrates the point:

John was an intellectually normal 13-year-old with a diagnosis of adolescent adjustment reaction. He exhibited a paucity of skills, disorganized behavior, and extreme anxiety and rigidity in the face of novel situations or tasks. In the first occupational therapy session, when offered clay, John, having only touched it, promptly enclosed himself in the storage closet and refused to emerge. The occupational therapist suggested that John simply sit and watch the therapist make something of the clay, hoping to decrease his anxiety on encountering the craft. As if nothing could go right, the therapist proceeded to spill a bowl of clay slip over his pants. In a good-natured exchange of joking about the accident, the therapist and a student managed to clean up the mess and the pants, while John watched.

Thinking the episode must have eliminated John's urge to make something with clay, an alternative activity was offered. John, however, remarked that the clay looked like it might be fun and offered to try it.
which he did with some success. Over the course of therapy John learned to try many new crafts with an increasing sense of control, investment, and satisfaction.

Later, by reflecting on the original incident, it became apparent that the accident with the clay and its subsequent "nonserious" treatment was just what John needed. It revealed to John that the occupational therapy clinic was a place where even the worst could happen without ill consequences. It was safe to play.

It has always been recognized that the occupational therapy clinic demands serious respect for the dignity and worth of patients and of the moment, can the ancient evolving functions on behavior. Innovating, organizing, and integrating functions on behavior.

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