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Observation Report Amber Hodges

Introduction

Siefert et. al describe children's play as intrinsically motivated, process oriented, creative and nonliteral, governed by implicit rules, spontaneous and self-initiated, and free from major emotional distress(1997 p. 221-222). For example, the rules of a made-up game that children play cannot be discerned from a rulebook that stands independently of the activity; rather, one can discern rules by either observing or being actively involved in the play process. For children, play is the arena where they ultimately control what is going on, through communication and negotiation with each other, and as such, it is an arena where they are able to gain mastery over problems in their life, learn adult skills and roles, and further develop cognitive abilities (Siefert 1997).

But, often times, children do not have complete hold over their environments. They can't shape what and how they play through their own design. Wardle introduces the concept of an environmental press, "the forces at work in a setting which shape the behavior of people in that setting" (1999 p. 245). One principle of the environmental press is that of progressive conformity, where people's behavior tends to become congruent with the press of the environment. Accordingly, the environment that a child plays in shapes the way that the child plays. Wide spaces encourage the use of gross-motor skills, whereas high spatial densities can contribute to aggression. The environmental press is not a force that influences children to do exactly the same thing in a certain situation; it is simply the environment's contribution to the transactions. Additionally, the "individual brings to their situation a unique arrangement of personal resources, a particular level of development, and other attributes" (Garbarino, *ibid* Wardle 1999 p. 245).

One final concept that is important to the shape of children's play is that of reciprocal determinism, a concept proposed originally by Bandura to describe the way in which development is an interaction between a person, the environment and their behavior. For

example, when a child first enters school, that environment is infinitely open to them. However, the child will behave in a certain way that affects the environment, perhaps by contributing to more school bullying. Over time, the environment becomes increasingly closed off to that child, and this affects his future development, as his aggressive behavior displeases prosocial children who might be models for empathy and conflict resolution. For Bandura, development is a reciprocal interaction between children and their environments (Shaffer 2000 p. 49).

The definitions of play and the concept of the environmental press and reciprocal determinism proved salient during my playground observations, and I take time to explain them now both by way of introduction and also because they will be important to the observations that are to come. Throughout my experience at Woodward, I marveled both at children's ability to make the most creative games out of the materials in front of them, materials which they had seen and played with throughout the year, but also at children's ability to create an environment of fun or of aggression and hostility. I saw reciprocal determinism shaping the relationship that I developed with one girl, Emm (*not her real name*), and I saw the environmental press shaping the nature of children's indoor play, bringing out aggression and more creative play. The playground truly is a classroom without walls for both students and adults.

** All names and initials of children have been changed to protect their identities.*

I. Emm's Interactions

Date and Time: [the time for all these interactions is from 12:00-12:30] April 24, 2003, May 1, 2003, May 8, 2003, May 22 2003,

Setting: Woodward Playground during 3rd Grade recess

Activity Observed: Playing the chase game, walking to the drinking fountain, walking to the classroom

My interaction with the children: Emm and I developed a relationship from the second week of my observations. She would be the catalyst for a game wherein she took my keys and I ran around and chased her. However, I was also in the role of comforter, for many times I soothed her when she was upset.

When I first met Emm, I thought that she was the most fragile child on the playground. She was tall and extremely thin, and when I first observed her, I noticed that she moved awkwardly, that she constantly looked to me or other playground helpers for approval or reprimand. However, through the blooming of our relationship, I came to understand that she is

socially competent, that she interacts well with peers, and is highly regarded by them and yet with me, or in other vertical relationships, Emm seems to be inflexible and unable to control her emotions. These issues came to the core of my struggle for evaluating the competence of Emm, and they highlight the importance of context in the expression of social competence.

The evaluation of social competence had not become a topic of interest until the 1970s, when social behavior was studied along side cognitive development in settings like the school (Tan personal communication). However, the issue of what exactly constitutes social skills was not yet definitively labeled and classified. One of the complexities of gauging one's social competence is determining who rates the competency, as often for children, peers and teachers rate social competence differently. Another complexity is whether social skills can be divided into different subsets or whether competence is a unitary whole (Tan personal communication). Researchers now believe that social competence can be broken down into different areas (Tan personal communication).

For example, according to a study by Caldarella and Merrell (1997), there are five common social skills dimensions for children and adolescents: peer relationship skills, self-management skills, academic skills, compliance skills, and assertion skills. Under the "relationship skills" are items such as applauds peers, invites peers to play, is sought out by peers to join activities, is sensitive to feelings of peers, makes friends easily, and shares laughter with peers. I saw evidence of all these behaviors with Emm and her friends. She is well integrated into a group of about five peers, and every day I observed her laughing, smiling, and in general playing with these peers. For example, On April 24, when I first encountered her, she was running around without a shoe! I then noticed that she was deep in the middle of a game where one of her friends takes her shoe and runs with it, or she takes one of their shoes. When I became a player in her group, I saw Emm drawing new people into the group, advising them on who was it in the chase game we played.

Under the category "self-management skills," Caldarella and Merrell (1997) placed skills such as remains calm when problems arise, accepts imposed limits, receives criticism well and responds to teasing by ignoring peers. This is where Emm has some limitations. For example, she frequently cries. Our first interaction occurred on April 24, when I tried to give her a time out, and she responded by crying. As I was trying to soothe her and fix part of her shoe, she began to cry harder, saying, "its all my fault!" We proceeded to go into the classroom and I

handed her over to her teacher, where she continued to cry. The second time that I saw her, she was crying after someone had pushed her down the slide; she was not physically hurt and stopped crying after I spoke with her. Emm does not have the ability to regulate negative emotions. On my last day of playground observation (June 4) J, one of Emm's playmates, came to me with a stricken face at the end of the recess time and said, "It looks like Emm is going to cry." I looked over to her, and I didn't see any overt signs that she was going to cry, but she in the end, she did cry. So, it appears that her playmates are tuned into some of her common warning signals and that for them, Emm's crying is not out of the ordinary. Another element of self-management skills, accepts imposed limits, Emm also fails to perform in my presence. One of the rules of our chase game is that the children cannot reach into my pockets. This is something that Emm has great difficulty refraining from, despite multiple warnings and threats of a time-out.

Social skills are not linear elements of a person's personality that can be easily tested. Researchers must be able to account for the fact that social skills involve both intrapersonal and interpersonal processes in a dynamic interaction with both context and time (Tan, personal communication 4/4/03). Consequently, although I showed some examples of trying to test Emm's social skills, I am only making generalizations, which I think differ in different contexts. For example, it seems as though Emm does fairly well with interpersonal processes, like entry behavior and perhaps the interpretation of cues. However, intrapersonal processes, like self-awareness and emotional self-regulation, Emm has difficulty with, and this gets expressed in her self-management skill set.

Perhaps one can look at the differences in types of relationships that exist to describe the different types of behavior that get expressed. Vertical relationships are relationships between two or more people of different ages (Tan personal communication 4/30/03), while horizontal relationships are relationships between two or more people of the same or similar ages. Children learn different things from both relationships. For example, from horizontal relationships, children learn conflict resolution, negotiation, self-management, cooperation and sharing, and how to deal with rejection and teasing. Horizontal relationships are based on the idea of equity and interchangeable roles, that the partners in the relationship are equal and that they demand the same things from each other. In vertical relationships, a child of Emm's age is typically at the bottom, while an adult is at the top. In this situation, children learn things such as how to listen to

authority, how to follow rules, how to imitate a model and how to accept help and trust others. When a child is at the bottom of a vertical relationship, she can expect that the person on top will be sacrificing, will provide and protect, and will accept them (and their selfish behaviors).

For Emm, I think that she struggles in vertical relationships, while she excels in horizontal relationships. Her acceptance from peers and her interactions with them indicate that she sees them as equals and that she works on cooperation and sharing with them (for example, she often works with two other girls as a team pitted against me to take my keys). It is in my vertical relationship with her where I see her engage in quite behaviors not normal of her age group. Besides the high frequency of crying, she also seems intent on getting me to carry her places. The first time that she did this was May 8, when I picked her up and began rocking her, saying, “Emm’s my baby”. She seemed to take this and would not let go, and continually urged me to pick her up again. As it was time to line up, she begged me to carry her to the door, or just to the end of the sand lot. A second time, on May 22, we were in the school, and she asked me to carry her past the office door, so that she could see her friend. After we talked by the office, an older woman came out, and Emm responded by throwing herself at me, trying to get me to pick her up. She said to the woman, “look, this is the girl who we take her keys from.” Interestingly, the woman said to Emm, “Remember Emm that you are a big girl.” She seemed to ignore this and just smile at me. Later, as she was getting ready to line up, she asked me to carry her again.

Additionally, Emm sees this great need to conspire with me. When we are playing our game, she continually tries to get me to come with her, to talk to her because she knows the location of the keys and she will tell me if I just talk to her. On May 8, I said to her that I can see another student with my keys, waving them around. But, she did not even look over to the other student, but continually insists that she has the keys, finally ending up yelling, “Fine! Don’t believe me!”

It is difficult for me to understand why this discrepancy would exist, as all I can use is her immediate behavior. However, I think that this discrepancy needs to be examined further. It is not as though Emm used me in attempts to solve her disputes with other children. For example, once she had been pushed off of the slide and was crying, and while I was talking to her the person that had pushed her came over to her and apologized before I even requested it. She doesn’t have difficult with entry behavior, and thus doesn’t look to me to help her enter into a social group. Context seems to play an important role in the expression of Emm’s social

competency, but additionally factors not available to me during the observation (how she interacts with other adults, how she acts at home) is necessary before anything more definitive can be said.

II. The Chase Game

1. Date and Time: [the time for all these interactions is from 12:00-12:30] April 24, 2003, May 1, 2003, May 8, 2003, May 22 2003, May 28

2. Setting: Woodward Playground during 3rd Grade recess

3. Activity Observed: playing “keep away”, where children take an object and pass it to each other in an attempt to allude the object’s owner.

4. My interaction with the children: I was the chaser. The children would take my keys or papers or pens and run around while I would chase them. If I happened to retrieve my objects, the children would run around and chase me in an attempt to get them.

According to Siefert, “play tends to be governed by implicit rules...rules that can be discerned by observing the activity” (1999 p. 222). This was certainly the case for the chase game that took place during my weeks of observation. The game at first seemed chaotic and unorganized, but there were definite rules, definite teammates, and my understanding of this blossomed throughout the course of the game. This points to the fact that games, which may at first seem unorganized or unruly, actually are established and ordered. This concept can best be understood by looking at the chase game through the lens of the dynamic systems perspective, as it allows me a way to demonstrate the mechanism in which the game, although it consisted of the same actions, was constantly changing and getting more complex.

One of the key concepts of a dynamic systems perspective is the emergent and dynamic frame, the patterns of interactions that become established through time (Pepler et. al p. 441). Frames can be thought of as roles that correspond to patterns of behavior, and frames serve to provide predictability in their interactions. During the chase game, I found that everyone had distinctive roles. I was always on my own team, and the children always formed a team. Throughout the weeks that we played the game, I tried to get children to be on my team and in the first two weeks, I had little success in getting this accomplished. On May 1, the day the game started, Emm would switch back and forth from being on my team--I think mostly a deceptive means to get the keys and then have me chase her. But, none of the other children would join my team, even after I continually asked them. On May 8, I targeted the girls to be on my team, but they wouldn’t budge. Finally, on May 22, I managed to convince J to be on my team, and he did

so honestly. However, this was met with some resistance from the other members. I pulled J aside and asked him if he wanted to be on my team and he agreed. However, D overheard and yelled to everyone that J was on my team. J did remain on my team for the rest of the afternoon; however, I had little success recruiting him in the following weeks.

Additionally, as the name indicates, frames are that set of behaviors which encase or surround the interaction, making it both unique and predictable. A distinct beginning and ending framed the chase game. After I first met Emm, I ended up walking her to class at the end of recess and giving her a sticker. The next time that I interacted with Emm she took my keys and ran off, her friends joining in on the fun. These two behaviors came to frame our interaction, such that the game would begin when the whole group of students would come up to me at the beginning of recess and take my keys and run away, and the game would end when I would walk them to class and give Emm a sticker. The children were aware of this frame as well. On May 22, Emm and the other children encircled me after they came out on the playground, saying the following:

“Come on. Remember what you said.” J said.

“You said that whenever we were together, we could play this game where we take your keys.” Emm said.

Another element to dynamic systems perspective is positive feedback, which serves to promote the development of a frame (Pepler et. al p. 1999 441). Positive feedback occurs in loops where one person in the frame performs one behavior, and the other person responds to that behavior in a way that encourages more behavior from the first person. Because of positive feedback, established frames are sensitive to small differences.

Positive feedback, on my part and on the part of the students, contributed to the increasingly aggressive and complicated nature of the game. For example, when the game began, we were just throwing the keys around. However, through the course of the weeks, I could tell that children were more and more testing the waters in what sort of behavior I would allow. On the fifth of May, children incorporated running into the field adjacent to the playground as part of the game as well as tossing the keys. I provided positive feedback in that I allowed it without explicit instruction not to, and I engaged in the same kind of behavior. On May 22, the children were more physically aggressive. When I had the keys, the children would pry open my hands or hang on me. Also, D and Emm physically held me back my holding onto my arms, wrapping

their arms around my shoulders and pulling back, and even hanging on me. I encouraged this by allowing them to do it and prying open hands myself. Finally, on May 28, two children would latch onto my legs in efforts to restrain me. I tried to walk with them on my legs and eventually did tell them to remove themselves from me. Overall, my attention to these activities served as positive feedback to encourage more and more adventurous behavior.

Another element of the dynamic systems perspective is coupling, “the coordination of particular behaviors or elements in the reciprocal interaction processes” (Pepler et. al 1999 p. 442). Coupling consists of the behaviors that make a particular interaction frame unique from others, and they are what make the interaction coherent. Both coupling and positive feedback are the self-organizing mechanisms in the dynamic systems perspective. In the case of my game, the main coupling that occurred was that children would take something of mine and I would chase them. In some ways this is complicated because earlier I have said that my chasing them was a source of positive feedback, but I am comfortable with this for a number of reasons. I believe that the positive feedback occurred because of my attention to them, which largely took the form of chasing, though could have been a number of other things. However, the physical act of chasing, the back and forth of the children taking something and my response of running at them as fast as I could (or alternatively, their running at me when I retained something) was the coupling.

One of the final elements of the dynamic system is its stability. As Pepler says, through repeated interactions, roles and behavior patterns become established (1990 p. 442). Once a system has self-organized, it is very resistant to change, partly because cognitive and emotional factors also continue to comprise the emergent frames (Pepler 1990 p. 442). The particular emotions and thoughts that children develop as a result of the interactions serve to stabilize the interaction. For example, once the game was established, one of the children, PI, tried to shift the focus of the game by continually saying to the group, “We have to formulate a plan.” Yet, I was the only one that would listen to her ‘plan’, everyone else continued to take the keys from whoever had had them and had them off.

One limitation of my observations is that they occurred over such a short period of time, where true dynamic systems become stable over a much longer period of time. Nevertheless, I think that the concepts of coupling, positive feedback and frames illustrate how our game was organized and resistant to change. I imagine that, were we to continue with our game, it would be

framed by the same beginning and ending and be comprised of the same roles. Ultimately, dynamic systems perspective is useful in describing play because play is so seemingly unstructured and intrinsic. In the chase game, no one set out to say, “ok, you will always be it, and these are the players, and this is the way that the game will go.” It was just a natural progression of satisfying interactions that became organized without our explicit consciousness.

III: ToM the Context of Play

Date and Time: [the time for all these interactions is from 12:00-12:30] May 1, 2003, May 8, 2003, May 22 2003,

2. Setting: Woodward Playground during 3rd Grade recess

3. Activity Observed: During a game of keep-away, I noticed the children trying to instill a false belief about the exact location of the keys.

4. My interaction with the children: I was the chaser. The children would take my keys or papers or pens and run around while I would chase them. If I happened to retrieve my objects, the children would run around and chase me in an attempt to get them.

Throughout the course of the chase game, I noticed an interesting behavior from two different people, YZ (not his real initials) and Emm, who both tried the same thing but had different results. YZ tried to make me believe that he did not have my keys, while Emm tried to make me believe that she either had the keys or knew where they were located. The behavior of both children is evidence of a well-established Theory of Mind; in particular, they are demonstrating that they understand that false beliefs can be implanted in other people’s minds.

Researchers studying the theory of the mind commonly test three and four year olds, as they believe that at that age is one of the critical points wherein four year olds have developed a theory of mind and three year olds haven’t. One interesting study by Chandler, Fritz and Hala (ibid Lee and Homer 1999 p. 235) tested whether deceptive acts were learned behaviors or a result of a child’s deliberate attempt to instill a false belief into another’s mind. In the study, Chandler et. al instructed children to cover the tracks and conceal the location of a doll, so that an adult would not know its location. The children employed various methods, including withholding evidence, destroying evidence, and producing false information and/or destroying evidence. Chandler found that children as young as two engaged in deception with the intent to create false beliefs in others minds, indicating that deception is not learned behavior (Homer and Lee 1999 p. 235). But, what does Theory of Mind look like for a nine year old?

On May 8, Emm attempted to instill the false belief in me that she knew the location of

my keys. Her behavior was quite interesting in that it was so unconvincing. First, she wanted me to go over to a corner and talk with her, because if I talked with her she would reveal where my keys were, and in another instance she said that she had the keys and would give them to me. I pointed out to her on both occasions that someone else had the keys. In one instance, I saw that J had my keys, and I told her I wouldn't go with her because I knew that she didn't have the keys, but, she didn't back down. She looked me right in the face and said that she had the keys (Incidentally, she wouldn't look where I was pointing, to J who was walking around swinging the keys). Finally, after we had been going back and forth for a few minutes this way, she says, "Fine! Don't believe me!"

On May 28, I was very cleverly fooled by YZ. At one point, I had left the group to talk to a student, and when I returned no one was clear where the keys were or who had them last, but they thought that it was YZ. I went over to YZ and asked him if he had the keys, to which he said no. He even let me check his pockets for the keys, and I found that he didn't have them. Throughout this he was calm, not giggling or giving himself away. I was confident that he didn't have the keys and went hot on another trail. At the very end of recess, YZ came up to me, smiling hugely, and presented me with the keys. He had, in fact, had them the whole time. I asked him how he managed this, and he said that he had hid them in this groove in his pocket. Thus, YZ was able to instill a false belief in me through quietness and a game face, unlike Emm who was unconvincing in her assuredness.

The above example brings up perhaps an additional developmental level to Theory of Mind. Whereas Emm tried to get me to believe that she had the keys when she didn't and whereas YZ tried to get me to believe that he did not have the keys when he did, both children are demonstrating their knowledge that I have a mind that can believe things that are different from reality. Yet to convincingly instill a false belief involves the ability to lie well, to read cues and remain calm under pressure--this is to say to know what to do that would convince someone of something false. Product is one level, but process is entirely another. The above example of YZ and Emm indicates that YZ has reached this different level while Emm has not.

III. Entry Behavior

Date and Time: May 1, 2003; 11:30-12:00

Setting: area of sand between the equipment and tire swing.

Activities observed: 3 different strategies of entry behavior

My interaction with the children: observed entry behavior

According to Puttallaz and Wasserman (1990), *successful* entry behavior is something that is rare. Many different types of entry strategies exist, for example, passive, self-centered or competent (Tan, personal communication 4/11/03). During this observation, I saw many of these different types being used; in line with Wasserman's research, the most successful strategies seen here involved a sequencing of behaviors. One additional interesting component of this observation is the different strategies used by people of different genders.

When the interaction began, two girls were building different structures in the sand. They sat facing each other, building separate structures but engaging in ongoing conversation. L's entry behavior consisted of watching the girls play in the sand for a few minutes, making sand castles alongside them, and finally saying something to one of the girls, who responded. According to a study done by Mallay (ibid Puttallaz and Wasserman 1990 p. 69) L used a three-step sequence that involved regard, regard and parallel activity and regard and vocalization. L's entry behavior was successful largely because, as was the case in a different study by Corsaro, the sequencing was more critical than the initial behavior, often because children first use less direct and less successful measures in an attempt to save face (Putallaz and Wasserman 1990 p. 71). During this interaction, I saw another entry behavior strategy that was also indirect. In this interaction, a girl, C, came up to the trio, watched for a few minutes and then asked, "What are ya'll doing?" One of the two original group members said, "Building sand castles." C then began to build sand castles with the group, and finally interacted with them. Her entry behavior was also indirect because she asks what they are doing, rather than asking if she can play. Both girls used a sequencing of entry behaviors, after their first strategy, regard, did not result in entry into the group.

The final entry behavior that I saw involved an entry strategy known as aggressive, where a child uses physical force to enter into a group (Tan, personal communication 4/11/03). A boy came and sat in the circle of girls and began to physically manipulate the sand castles the girls were building. Additionally, he reached in and picked up a small toy that the girls had put atop one of their sand structures, and started to bobble it in his hands. His entry behavior was unsuccessful, as one of the girls screamed at him, 'get away!'; he responded by running away quickly.

The gendered differences in entry behavior seem to be in agreement with the study by

Forbes (cited in Puttallaz and Wasserman 1990 p. 72-74). The girls in Forbes study employed more neutral entry strategies following negative group feedback in efforts to align themselves more with the group. The boys were more likely use forceful relational entry strategies (i.e. being assertive about their relationship to the group as opposed to the activity) and were more likely to engage in face-saving behaviors and assert their positive worth after a rejection. Tentatively, I think that that the gender difference I saw--that females used more indirect entry behaviors like regard and vocalization, and that the boy used more physically aggressive behavior supports Forbes finding. The girls changed entry behavior strategies after their first or even second strategy was unsuccessful, while the boy, after negative feedback, opted not to change strategies to fit in with the group at all. He chose to get up and run away from the group entirely.

Entry behavior is an important skill to master, especially earlier in life when nonverbal cues are more explicit, and the use of good entry behavior strategies is often a good predictor for social competence (Tan personal communication). Once inside the group, children have valuable opportunities to learn about equity, conflict resolution, and emotion management, to name a few. Knowing this, we can understand the second step in reciprocal determinism a little better. Our boy, through aggressive entry behavior strategies, has closed off his opportunity to engage in play with the girls, and therefore he has lost the opportunity to practice the skills listed above. In view of that, entry behavior is a valuable portal into the world of social interaction.

IV. Indoor recess

Date and Time: 5/18/03; 11:30-12:30

Setting: Woodward gym during indoor recess

Activities Observed: creative use of hula-hoops and boys' rough and tumble play.

My role in the interaction: I mainly observed behavior.

When I heard that today would be indoor recess, half of me was excited and half of me was quite apprehensive. I was curious to see the differences in play from an outdoor environment to an indoor environment, but something told me that the small, enclosed space could breed aggression. Both of my feelings were confirmed: I saw both aggressive acts and more creative forms of play, children being creative with a hula hoop, and boys playing roughly against a "zombie." In "Play Environment", Francis Wardle (1999) examines several aspects of the indoor environment, like spatial density and the arrangement of space that affect play; additionally, she looks at "loose parts" as components of outdoor playgrounds. As she would hypothesize, the

play environment structured the type of play that these children engaged in during their indoor recess.

According to Wardle (1990), an upper limit of spatial density exists. Under the limit, children close together encourage social play and interaction, however, after the limit is reached, there is an increase in aggression and a decrease gross-motor play. A study by Smith and Connelly defined this upper limit as 25 square feet per child, whereby anything denser resulted in a significant reduction in group play (Wardle 1999 p. 247). Because spatial density was below the upper limit, it seemed to encourage play in the gym at Woodward because children were enclosed in a small space and forced to interact with each other, in sociodramatic play (getting the “zombie”), in gross motor-play, (running around with hula hoops or playing basketball) and talking in small circles.

Another aspect that Wardle (1990) discusses is the arrangement of space. In general, a well-defined or partitioned space results in increases in verbal interactions, cooperation, pretend play, and assists in encouraging more adult participation. However, open spaces have been associated with increased amounts of rowdy, withdrawn and random behavior (Wardle 1990 p. 254). The setup of the gym is extremely open, with no physical structures or barriers marking off space. Children were free to use materials, such as hula-hoops, jump ropes, and basketballs throughout the space. The only fixed structures were a pile of mats that were in the corner of the room.

Though the gym was not so spatially dense that it would serve to increase aggression, I believe the lack of structure in the gym did increase the aggression. Specifically, I saw one group of boys engaged in rough and tumble play who normally do not engage in this behavior (based on previous observations). About four boys engaged in the “zombie” game, whereby they would physically attack, through hanging on, punching, or pulling down to the ground, a larger child who was the zombie. In a derivation of this game, the three or four boys would sit or lay on the mat and the zombie would run and jump onto the boys. In one instance, the rough and tumble play resulted in an intervention by one of the activity helpers when the boys began using the hula-hoops as weapons to attack the zombie. At times, the game would be extended outside the small corner of the gym, when the boys would use the heating vents to hide from the zombie and would additionally chase the zombie around, like they were playing tag. I believe the lack of structure of the gym, the complete openness, contributed to the rough and tumble play of the

boys.

In addition to the rough and tumble play of the boys, I noticed very inventive ways of using a hula hoop, in line with Wardle's discussion on flexible materials that when more flexible open more options to the child (1990 p. 270). Flexible materials include water and sand, which can be manipulated in an infinite amount of ways that breed creativity and ingenuity. Loose parts, like blocks of wood or ropes, are a subset of flexible materials in that they are objects to which children can ascribe their own meaning and structure on the environment, thus making the environment more responsive to children's needs (Wardle 1990 p. 271).

From my observation, I saw that children used hula-hoops in a number of different ways. A hula-hoop might seem more like an inflexible part because it cannot be disassembled; however, because children played with it in a variety of ways (many of which I would have never thought!), I consider it to be a loose part. For example, a group of girls was playing tag, when one of them decided to use the hula-hoop to group herself with another girl. Thus, the person that was "it" was chasing a hula-hoop that enclosed two girls. A few minutes later, one of the girls that was "it" used the hula hoop to physically restrain people (making them it.) The hula-hoop was also used for more physical activities, such as hula hooping and using the hula-hoop as a jump rope or waving it around like a flag. The hula-hoop was also a tool for social interaction when it was used to beat the zombie in the boy's game, to point someone out in another interaction, and to gain the attention of the activity helpers. One child insisted that all three activity helpers watch him as he hula hoop-ed.

For indoor play, it appears that the concept of the progressive conformity of the environmental press is important, as it contributes to differences in play, and I think that this is important to consider when adults try to structure the indoor play environment. While including loose parts is helpful in stimulating the creative capacities for a number of children, the open structure contributes to the aggressive tendencies of another group of children. This is not surprising according to the principles of the environmental press, where the environment and the individual each bring something to the transaction. Loose parts are one essential component to both an indoor and an outdoor environment, but play environments must also have structures. It is important to provide a multitude of options that engage children in varied types of play.

Conclusion

Through various observations of play, we can see the ways in which children and the environment each bring something unique to the interaction. The environment, through containing loose parts or providing fixed structures, can encourage children to engage in play that is both more social and creative, as in the case of the hula hoops, or more aggressive. The open space of the outdoor playground provided ample room for the full expression of the chase game, involving running and physical aggression. The child brings a unique composition of genetics, previous experiences, and knowledge of the social world, which he or she uses to interact with other children, through various entry behavior strategies, deceptive techniques, or through their ability to behave in different contexts. Through interacting with the playground and with other children, children can learn much about the material world, about empathy, perspective taking, and bullying. Even adults can learn so much about children and themselves through observing this classroom without walls.

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