

## El Juego de Memoria: Procesos mediacionales en Inclusión Social

### The Memory Game: Mediation Processes in Social Inclusion

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#### Historia editorial

Recibido: 27/11/2013

Aceptado: 25/09/2014

#### ABSTRACT

This article examines mediational processes in educational activities at Projeto Clicar, a program designed to promote the social inclusion of young people living on the streets of São Paulo, Brasil. It presents an ethnographic description of how informal digital and hands-on activities at Projeto Clicar provide for an integrative socio-cultural process, re-situating these children in time and place through the mediation of shared tools and artifacts. This interactive "third space" enables these children to transform their participation in the program's activities over time, and to re-conceptualize their experience as

agentive partners in a community of learners collectively engaged in mastering the tools of sociality. In particular, this ethnographic narrative offers a case study of one child's interaction with others in learning relatively simple digital games. Using the strategies of participant observation to explore the interactions between children and educators and among the children themselves, this research explores the process of participatory appropriation and suggests alternative modes of relation in the co-construction of inclusionary social and educational activity.

**Key words:** Social inclusion; Mediation; Participatory appropriation; Third space

## RESUMEN

Esta investigación examina los procesos de mediación en las actividades educativas en el Proyecto Clicar, un programa diseñado para promover la inclusión social de los jóvenes que viven en las calles de São Paulo, Brasil. Se presenta una descripción etnográfica de cómo las actividades digitales y prácticas en el Proyecto Clicar prevén un proceso sociocultural de integración, re-situando a estos niños en tiempo y lugar a través de la mediación de herramientas y artefactos compartidos. Este "tercer espacio" interactivo permite a estos niños transformar su participación en las actividades del programa en el tiempo, y re-conceptualizar su experiencia como

agentes en una comunidad de aprendizaje que participa colectivamente en la maestría de las herramientas de la socialidad. En particular, esta narrativa etnográfica ofrece un estudio de caso de la interacción de un niño con otras personas en el aprendizaje de juegos electrónicos relativamente simples. Se emplearon estrategias de observación participante para explorar las interacciones entre los niños y los educadores y entre los propios niños. En esta manera, esta investigación explora el proceso de apropiación participativa y sugiere modos alternativos de relación en la co-construcción de la actividad social y educativa inclusiva.

**Palabras clave:** Inclusión social; Mediación; Apropiación participativa; Tercer espacio

This article examines mediational processes in a program designed to promote the social and educational inclusion of children living on the streets of São Paulo, Brasil. For over seventeen years until its recent (2013) closure, Projeto Clicar provided informal educational resources and activities at Estação Ciência, a science museum in the Lapa district of São Paulo. In its informal digital and hands-on activities, Projeto Clicar linked these children (aged 5 to 18) to professional educators and older peers (university students from the Universidade de São Paulo). From one perspective, this is a study in collective remembering. It is on one hand a study based on the combined experiences, data, and memories of three researchers/practitioners. It is, moreover, a study of memory "as kinds of social action, rather than as properties of individual memory" (Middleton and Edwards, 1990,19).

Connecting this view to the concept of mediation, Radley (1990, 47) approaches remembering as “social practices in which people engage with the material world” that is, we engage with the world and each other through tools and symbols, technology and language. From another perspective, then, this is a study of materiality and technology in the world of children (Deverensky, 2000; Lillehammer, 2000). Focusing on the world of children “allows us to link the adaptive or creative process of learning and coping in the world to the biological and cultural development of children by focusing on the cultural transference and innovation in the production and reproduction of material culture” (Lillehammer, 2000, 20). This perspective points to the active work and play of children, “children’s creation of themselves” (Lillehammer, 2000), and enables us to look closely at the material evidence of their learning – their changing participation in socio-cultural activities that frame their mutual and self-invention. In short, this approach allows us to view children as persons agentively engaged in the act of learning and remembering.

In this context, we view remembering as an integrative socio-cultural process – that is, as the sociocultural construction of personal or collective history – situating the world of children in time and place through the mediation of shared tools and artifacts. As Vygotsky succinctly put it, “The path from object to child and from child to object passes through another person” (1978:30). We extend this view to a setting created for children living in uncertain non-traditional family circumstances and caught in the situation of living on the street. We examine how, over time, out of their interactions with computers and with each other, the participants developed a sense of distinctive identity and at the same time a sense of belonging in a third space, an alternative place of inclusion that holds in abeyance the larger world of indifference and exclusion, and enables young people to “begin to re-conceive who they are and what they might

be able to accomplish academically and beyond” (Gutierrez, 2008, 148). Such spaces represent zones of proximal development that “reorganize everyday functioning,” enabling young people to re-envision their often chaotic social environment and thus re-conceive themselves in an inclusionary social context (Gutierrez, 2008; Vygotsky, 1978). In this research, we thus examine the mediational processes of activities contributing to the social inclusion of the children at Projeto Clicar.

### **Methods**

By describing and interpreting these activities, we attempt to show how program activities mediated children's development over time. While Vygotsky, Luria, and others generally examined mediation through experimental and quasi-experimental studies, we take a more anthropological, or ethnographic approach. At Projeto Clicar, the authors conducted participant observation, a combination of informal and formal research strategies in which the researchers engage directly in everyday activities and interactions with people as a way to learn the explicit and implicit aspects of their daily lives and social world (Spradley, 1980; Dewalt & Dewalt, 2010). Participant observation strategies include making face-to-face observations of activities, learning appropriate conversational pragmatics appropriate to the site and its participants, and conducting informal conversations and interviews, among other research methods (Briggs, 1986; Pelto, 2013). While this qualitative research stance has often erred on the side of the observational, or research, side of this method, we focus on the participatory side – on what we call observant participation – because of the character of the social setting and our roles in the setting.<sup>i</sup> This focus enabled us to confront ethical dilemmas of qualitative research as we focused on examining alternative, inclusionary modes of relation in the co-construction of social activity (Packer, 2011, 395).

We followed this approach, first, on the basis of the ethical and methodological considerations attendant to working in an educational setting which precluded clinical or experimental research design, and which was designed explicitly to advocate for, rather than conduct research on, the young people who participated in the site's activities. Our research was formative, in the sense of seeking to find ways to modify and improve the learning activities at Projeto Clicar. Moreover, our approach credited the theoretical significance of observing how mediation takes place in real-world situations.

In this sense, we were building upon Luria's studies in what he called "romantic science" (Luria, 1987a; 1987b). As Sacks has noted, Luria's use of the term was not pejorative; it implied a difference in style rather than principle<sup>ii</sup> -- a narrative approach to presenting scientific findings that makes the attempt "to preserve the wealth of living reality" (Luria, 1979, in Sacks, 1990, 183). This approach (which Luria pioneered and Sachs mastered) reflects Luria's insistence that human nature is not fixed by individuals' genetic makeup but may be deeply shaped by their encounter with the world of objects and people around them. Luria's approach emphasized the importance of grounding the scientific study of human beings in their concrete existence – that is, both in their organic predicament and in their dynamic engagement with the material world, by which the body and its experience become integrated in a developing social being. In short, the narrative approach that Luria posits reflects his unwavering focus on "the role of the historical, the cultural, the interactive, not merely in modifying, but in actually making higher nervous functions *possible*" (Sacks, 1990, 187).

Accordingly, we describe the young people of Projeto Clicar to illustrate the strategies by which they learned to create a place for themselves in an otherwise unwelcoming world. Like Projeto Clicar itself, this ethnographic study, following Freire (1970), accepts them where they are and observes what they are able to do by themselves and in concert with each other. Notably, we are not absent as subjects from the descriptions that follow. As participant observers engaged in the process of observing how the children in the program learn how those activities work, our own participation was obviously implicated. At the same time, it is important to recognize that the children of Clicar were themselves participant observers, engaged in the ongoing task of finding out what one needs to know to operate acceptably in a given social world (Goodenough, 1957, in Keller and Keller, 1996). In describing Projeto Clicar as a community of learners – one that includes educators' guidance, children's independent discovery, and the transformational participation of both in shared socio-cultural activities (Rogoff, 1994) – it is important not to mystify the learning that took place (either ours or theirs) but instead to recognize, as Lave (1996) has suggested, that it is a matter of the changing participation observable in the ongoing frame of socio-cultural activities that Clicar represents. As Rogoff (1996) has argued, this change is not simply a process of the internalization or acquisition of a social world that is somehow external to the individual; it is a process of participatory appropriation, in which the individual is developmentally engaged in “a dynamic, active, mutual process involved in people's participation in cultural activities” (Rogoff, 1995,153). In this context, it is Projeto Clicar which provided for the cultural context in which this transformation in participation could take place. To comprehend this process, we offer here a description of the children of Projeto Clicar and their interactions with each other and with us, to show how their individual understanding of and responsibility for activities is transformed through their participation over time.

## Research results

This ethnographic narrative presents a case study of one child's interaction with others in learning relatively simple computer games.<sup>iii</sup> From 1996 until 2013, Projeto Clicar, supported by the Universidade de São Paulo, an NGO, and Petrobras, was located at Estação Ciência (the Science Station), an old factory that was converted into a science museum. This museum primarily offered exhibits and activities for school children and their teachers, but it also set aside a portion of its space for a program dedicated specifically to children who lived on the street.<sup>iv</sup> Estação Ciência's primary goal was the promulgation of science; its location in a largely under-resourced district of São Paulo signaled the university's commitment to community engagement. The location of Projeto Clicar in a science museum is interesting in the context of our approach to the study of memory. Radley (1990) has described museums as guided tours of objects conventionally defined as worth remembering. Science museums in this light are distinctive in that they are focused not on remembering the past but on documenting the present – what we now think we know about the universe, and what we think is worth remembering about the world around us as a cumulative result of collective knowledge. Estação Ciência, until its recent closure, offered a wide variety of engaging activities and demonstrations that illustrated scientific knowledge and inquiry. Projeto Clicar, as part of the museum, offered an inclusive third space providing access to new learning tools and activities to local young people who faced severe conditions of social exclusion.

In fact, what happened at Projeto Clicar was that children (many of whom were not in school, had never been to school, or had only attended school for a year or two) entered a space where they were able to explore a variety of digital tools and other resources -- board games, art activities, picture books, etc. Their participation in these

activities was wholly voluntary.<sup>v</sup> There was little or no formal instruction, in the traditional classroom sense, although there were always educators at hand (including both professionals and trained university students) whom the children could ask for guidance when they were unable to solve a problem for themselves. The children learned through interaction with each other and with the educators, who often participated with them in the activities of their choice. The team of educators was specifically trained not to "teach" the children, but to ask questions, to guide them gently to build on what they already knew.

In this sense, Projeto Clicar represented a separate "world" of activity, an arena of playful activity, a "third space" beyond the constraints of strict surveillance and practical, purposeful pursuits (Gutierrez, 2008). Importantly for the young people of Clicar, the space was seen by the children as theirs. It was a time and place set aside specifically for them, where the rigors of social exclusion they daily experienced were temporarily suspended. It was a space where the participants were free to remove their masks of quasi-adult street toughness and, for a few hours each day, assume the personae of – in short, act like (and actually "be") – children (Underwood et al., 2003). This was not a trivial moment in their experience.

Hecht (1998) has provided a graphic description of the differential worlds of children in Brazil – the socio-economic inequities and the vast differences in the way children of the elite and children of the impoverished are treated. Children who spend all or most of their time living in the streets are especially vulnerable to the exigencies of social exclusion. Of course, the last decade has seen many changes in Brasil. With the inception of new policies under President Lula's administration, many families were able to obtain resources that had formerly been unavailable to them, and as a result



many children who had been out of school and living on the streets could return or begin to go to school. Since 1998, when this research began, many socio-economic conditions have improved and the changes are noticeable throughout the country.

During the initial period in which this research was conducted, however, the children who came to Projeto Clicar from all over the vast cityscape of São Paulo – sometimes traveling for two or three hours to get there – offered a very different impression. The rapid growth of this huge city, coupled with the severe authoritarian legacy of the dictatorship that terrorized the country's cities and backlands for two decades, transformed it into a city of walls, where the streets were relegated to the utterly marginalized underclass (“os subcidadãos”) and were negotiated in locked vehicles by the more well-to-do (Caldeira, 2000). The streets were no longer considered a social space, but instead, “the space of ‘the poor,’ which here has a negative connotation: ignorance, brutalization, violence, incivility, disorder and danger... [It is] a zone of shadows, a physical space, confused and ambiguous, peopled by the multitudes, the “masses,” the “miserable,” the pariahs” (da Cunha Frontana, 1999, 116). In short, *meninos na rua* (“children living on the street”) became stigmatized, simply by being on the streets.

Without question, the children who frequented Projeto Clicar had learned to deal, in one way or another, with the realities of social exclusion they encountered. Before the program opened each day, the children began to appear one by one. Most of them wore ragged pants and tee-shirts, or other castoff clothes. For a moment, their eyes might reveal an unspoken distress, but they quickly disguised their uncertainties with a gaze of solitary defiance. Their masks of self-assured toughness quickly melted away in the world of Clicar, but when they had to re-enter the world of the streets, to find

shelter, a doorway out of the rain, or an obscure spot where they could pass the night without being hassled or harmed, the act of re-molding the mask of unconcerned invulnerability, the sullen, wizened face which they presented to the world of the streets, could be painful to watch. At times when the program was closing for the day, they would cling to the educators at Clicar, laughing and joking in an almost panicked state. Sometimes they returned again and again to Projeto Clicar after it closed, until at last the educators, biting their lips, raised their voices. "You have to go now! Estação Ciência is closing!" Even then, some of the children often hovered, individually or in groups, at the exits to the museum, before finally steeling themselves to the approaching night. At times, a child would return, shivering with cold or crying – at a loss for what to do or where to go. They needed something warmer to wear (which the Clicar staff often gave them from a box of donated second-hand clothing) or they were frankly afraid (because of threats made earlier in the day before their arrival at Clicar) or they were confused (the shelter they frequented was full that day, and they were not sure where, in all of São Paulo, to find another), and they realized that at that moment, Projeto Clicar was the safest place that existed for them.

When they initially came to the program, the children often stood around behind those who were already playing on the computers, or they sat down next to them and quietly watched what they were doing. Sometimes they went to a corner and perused a comic book or just sat silently by themselves. Often one of the educators at Clicar then joined them and casually engaged them in a board game, in drawing, or in talking about what they might like to do. For most, however, their attention was quickly drawn to digital activities. For hours, or even days, they would stand back and quietly observe others playing computer games or exploring the web, before finally sitting in front of a computer themselves and trying their hand at the keyboard and mouse. Usually, when

they did this, they simply took a position at the periphery of a group of two or three other children sharing a computer. The children thus built upon their skills by watching other children, and by tentatively beginning to assume the tasks and challenges that the others around them had begun to master. They learned by doing, by taking part with others in specific activities and figuring out with others how things worked. Over time they learned by building a shared sense of things, as they continually worked things out together and pooled their growing knowledge -- about how the computers work, about the obvious and hidden rules and tricks of games, about the keyboard and its functions, about the imaginary worlds that various games portray, about the world of hidden windows and magic icons opening up to new levels of mastery, about the ins and outs of navigating the animated world at one's fingertips, and ultimately, about a web of world wide vistas and activities that could be discovered and explored by tapping keys and clicking a mouse to release the mysteries inside a plastic box with a flickering screen.

In short, the activities at Projeto Clicar helped build the children's capacity to remember a world of intricate alternatives, of keys and portals to new choices. The children entered a zone of inclusion where memory became for them an act of recreation -- a social act of creating and re-creating sense out of arbitrary symbols, until in the course of time those symbols came to inform an expanding web of significance -- a cultural system of shared activity and meaning (Geertz, 1973). Projeto Clicar, in other words, helped frame individual activity in the context of others' predictable activity and helped integrate the individual's life in the sociocultural context of a community of learners. Since there was little stability among these children's backgrounds, each child taking part in the program had to be dealt with on his or her own terms. The framing activity of Projeto Clicar thus came to be focused on the co-

construction of a sociocultural consistency – a common sense of togetherness or belonging. Projeto Clicar made use of games such as matching games, various board games, checkers and chess, and computer games (e.g., “Lion King,” “Pajama Sam,” “Freddie the Fish,” “Sim City”), various math and word games, as well as more sophisticated web-based and digital multi-media activities, to provide intensive individual connections with shared artifacts and meanings (including negotiated game rules) and also intensive social connections with others in the program. Participation in the program thus entailed an intense traffic in shared tools, artifacts, and symbols.

When we observed the children at Clicar, we saw children of various ages gathered in clusters of two, three, or four, gazing at the computer screen and at times glancing at each other as they negotiated their way through a game, a web site, or an imaginary world created by software. Sometimes a child, especially at the beginning of his or her time at Projeto Clicar, sat down alone and began to play a game. The child continued on his own until another joined him. Sometimes two or three others joined the first child. Since the computers were lined up in a row against the wall, these clusters of children often overlapped. That is, children in the interstitial spaces between computers directed their attention sometimes to the computer on their left and sometimes to the one on their right. They turned their heads or leaned in to the activity on one side, commenting on the task at hand, giving instructions, encouragement, or criticism to the child who at the moment had control of the mouse, then turning away and doing the same for another activity and cluster of kids. They took turns controlling the mouse, at times grabbing it away from another, but usually following the program’s unspoken code of fairness, an implicit principle of shared ownership that they knew could prove tenuous for them individually if they transgressed against the code. With the computers lined against the U-shaped walls of the project’s assigned space within

Estação Ciência, this clustering of children, actively engaged in multiple activities, created a constant boisterous noise, a steady, barely controlled commotion, from time to time punctuated by a burst of exuberant shouts. Sitting or standing close to each other in a cluster around the computer screen, the children talked intermittently, sometimes silently focused on a game, a website, but often bantering, interrupting each other or calling out instructions or advice, consulting with each other on the shortcuts, pitfalls, and hazards of particular games.

João was different from most of the others. Thin and a bit ragged, he was very quiet and kept almost entirely to himself. Occasionally, another of the children would turn to him and make a comment in a tone that was either patronizing or conciliatory. The others would look at him expectantly, not quite baiting him but clearly trying to evoke a response, or as if anticipating a reaction that would be out of the ordinary. Usually, João offered no response at all. He ignored their comments or questions, and at times he shifted his weight or shifted his shoulders as a way of cutting them off from his attention, or of banishing them from his private world. If one of the educators sat down next to him, he did not open up, as some of the other kids did, but he also did not turn his back on them or shift his shoulders in a gesture of independence or non-cooperation. In a way, adults existed outside his world, or perhaps at the very edges of his world. At times he acknowledged others – but it was clear that he preferred to live in his own private world as if others were not a real part of it, or as if there was little good he could expect from anyone. Unlike many of the other children at Projeto Clicar, who arrived in small groups, joking and bantering, he always arrived alone and silent. His clothes were tattered and grimy, his hair matted and dusty, the skin of his face blotched with different shades of pigmentation. He rarely looked around at others,

even if they spoke to him. He seemed to know precisely what he wanted to do, and that is what he did, by himself, every day.

One afternoon Charles sat down next to him.<sup>vi</sup> João was playing a memory game on the computer. It was a matching activity, with paired images randomly distributed on the screen behind identical yellow icons. By clicking on the icon, one exposed the hidden image for a moment; by remembering the location of the exposed image, one could retrieve it after identifying the location of its match. When one clicked both of a matched pair in consecutive order, they remained exposed for the rest of the game. The object of the game, when played alone, was to identify all the pairs in the shortest time possible. With as many as a hundred images distributed behind the icons on the screen, the game challenged the player's ability to manipulate the mouse quickly among the icons and to bring to mind exactly where specific previously exposed images were located among them. Both time and physical dexterity were thus key aspects of the memory game.

Charles watched João playing the game for a while. The boy had become very quick, very adept at the game. He clicked the yellow icons one by one. He moved from one to another with hardly a pause, momentarily exposing a succession of images. When he recognized an image he had seen before, he quickly, almost without hesitation, sent the cursor back to expose the match. Even at the beginning of the game, João was almost always correct in exposing the match of an image he had seen before; he rarely clicked on the wrong icon. In this way he progressed through the game without a pause. As more and more images were exposed, and fewer and fewer icons remained unexposed, his pace increased. He commented on his actions as he progressed. Charles could not quite understand what he was saying, but it seemed that he was

providing a commentary – perhaps to Charles, or perhaps only to himself – on where he needed to move next, given what he remembered of the field of exposed and unexposed icons. As he located each match, his tone of voice (again, Charles could understand few of his words) registered satisfaction, a kind of confident pride, at this latest demonstration of his skill to move quickly to exactly the right icon. Then he offered more commentary, always murmuring to himself, about his next plan of attack among the field of unexposed icons, like an ongoing discourse, self-assured yet incomprehensible to others, on the strategy implicit in responding to the ever fewer number of unexposed icons. Charles listened more closely but could make out little of what he was saying, yet the pace and intonation of his voice, and the nodding of his head to indicate direction or intent, accompanied the rapidity of his hand on the mouse, sending the cursor tactically to one icon or another with an astonishing economy of movement and effort. The game was over in short order.

João did not stop, even for a moment. Right away, he clicked the mouse to re-randomize the icons on the screen in a new configuration, and he began the game again. Charles expressed surprise at his agility at the game and commented on this to one of the children at the next computer, who turned and said, “é fantástico” [He’s fantastic]. João was already deep into a new game. His face totally absorbed in what appeared on the computer screen, his hand moving the mouse quickly from icon to icon, exposing an image, then another, and another, finding an image he had seen before and quickly returning to its match, João was already so far ahead, there was little Charles could do but continue to play his role as a passive witness to this spectacle. From time to time, Charles recognized a familiar icon and noted, “Yes, we’ve seen that one before.” João shrugged at the obvious and continued rapidly identifying the matched pairs in the field of icons. He continued his ongoing

commentary on what Charles interpreted as his progress and his methods. Charles questioned his own interpretation of what João's commentary actually meant but it was impossible to ignore or rule out the powerful impression that his ongoing discourse made. Although his words were not clear, his voice carried assurance. For the first time, João now began to glance at Charles as he spoke. The time spent observing the course of his successive games had established a connection, as if Charles' attention to his field of expertise demonstrated to João the social worth of this adult stranger.

After finishing another game, he invited Charles with a gesture to play a game with him. Charles glanced at Dirce and saw the look of surprise on her face. As João and Charles began to play, the boy would take a turn first. If he exposed a matched pair, he was entitled to continue. If not, it was Charles' turn to try to find a pair. If Charles failed, it became João's turn again. Quickly, as they took their turns, the two began to expose images they had seen before. João began to put together runs in which he clicked on successive pairs of matched images. His success began to accelerate until, in a fairly short time, all the pairs had been exposed. The two played two games like this, and each time, João identified at least twice as many pairs as Charles did.

Apparently satisfied with his victories and his obvious superiority to Charles in this game, and perhaps a little sympathetic with the adult's relative ineptitude, he then invited Charles with a gesture to play the game by himself. Charles took over the mouse and found, to João's amusement, that the game was not as easy as João had made it look. Recognizing that he had seen an image before was easy, but recalling in exactly which location, among fifteen or twenty images already exposed, was a more difficult task that did not come naturally. In other words, recognition of an image previously exposed in the game was a different capacity than the recognition of



precisely where in the grid of unexposed icons that image had previously appeared. Some kind of strategy for putting the two together was necessary.

It was this kind of strategy, we assumed, that João began now to talk about. For his part, Charles could not understand a word the boy was saying; it seemed to be a dialect of Portuguese that was identical phonetically but not phonemically to that with which Charles was familiar. João's intonation patterns were similar to the other kids in the room, though more monotonous, but Charles could find no anchor of meaning in João's discourse. There seemed to be no cognates that Charles could recognize and begin to build even a partial understanding of what João was saying. Gesturing at the icons, his eyes always on the screen except for occasional glances at Charles, he spoke steadily in a low voice. Whenever Charles exposed an image they had seen before, João would point in the approximate direction of its match. If Charles moved the cursor and clicked on the correct icon, he muttered something indiscernible, but which Charles interpreted as meaning something like, "I told you so." If Charles clicked on the wrong symbol, he muttered and pointed to indicate a more specific location. Charles interpreted his tone of voice to mean something like, "not quite, but close." At the same time, his tone of voice registered a confidence in his own ability and a kind of tutorial encouragement toward Charles. In this way, in concert with João, Charles began to be able to make the right choice more consistently by the second or third try.

Afterwards, when Projeto Clicar had closed and the children had left for the day, Charles asked Cecilia about João and his phenomenal memory. She described how João appeared one day. He entered the space of Projeto Clicar tentatively and wandered around, looking at what the other kids were doing, both at the computers

and at the tables, where they were doing art projects or writing poetry. He held back from participating. In fact, he kept his distance from others. When invited to join an activity, he withdrew in silence. Sensing his reserve and not wishing to drive him away, the educators at Projeto Clicar allowed him simply to wander around, observing the others and resisting conversation. The next day, at the time when Projeto Clicar opened, João returned. Again, he wandered in silence, observing, listening, but not joining any of the activities. He kept returning to the program, day after day, and the educators allowed him to watch and observe a wide variety of activities – computer games, internet explorations, board games, drawing, writing – without ever participating. One day, at long last, he sat down at one of the computers and watched one of the other children playing the memory game. He did not talk or ask questions, and the other child ignored him. By this time, the educators had asked the other regulars at Clicar if they knew the boy. They said they knew who he was. They saw him around on the streets. But none of them ever spoke to him, and he rarely spoke to anyone. In describing him, the kids at Clicar began to mimic his walk and his distinctive way of speaking.

The unconfirmed story that emerged was of a child who had from the age of four or five lived in uncertain circumstances with adults (for instance, a “street father” who cared for the child or used the “street services” of this child) or older children. Perhaps the trauma of having to survive on the streets at such a young age inclined him to retreat from interaction with others (especially strangers) and to subsist as much as possible on his own. In doing so, João had developed idiosyncratic – and very minimal – mannerisms. When he walked by, or when he was observed standing alone on the streets, his nonverbal behavior communicated little or nothing, neither fear nor dependence nor strength nor self-assurance, nor any visible interest in the people and

objects around him. Having lived in this way for about five years, João had developed his own language.

Charles commented to Cecilia that he had failed to understand a word. She smiled and said that was because no one could decipher what João was saying. He had developed an idiolect that incorporated the phonology of Portuguese but not the phonemic, morphemic, or semantic characteristics of the language. His speech sounded exactly like Portuguese but made no sense – at least not to anyone but João himself. This fact helped explain some of the interactions that had been observed between Joao and other children at Projeto Clicar. At times, they would approach João and talk to him, almost taunt him. Usually he would ignore them, but on occasion he would angrily talk back at them in his own distinctive speech. The others would laugh. They loved to get him to talk, and then would respond with a mix of meaningless sounds and meaningful words or expressions. Often, after such an exchange, they would pat João on the back and say, “Bom, João, bom!” [“Good, João, good!”]. Over a period of time, Cecilia noted, as João began to sit at the computer and play the memory game, again and again, others would join him. They would pull up a chair and sit next to him or stand at his shoulder and watch the screen. They pointed and gave advice. They used their combined memories to make the game go faster. Or they simply watched, sometimes remarking to each other that João was getting better and better at playing the memory game. Most of the time, however, João continued to play alone. He continued returning to Clicar, day after day. But it was only the memory game that interested him.

Cecilia remarked that when Charles had sat down next to João, they had all watched and wondered what would happen. While João interacted to a limited extent with the

other children, he almost always remained extremely reticent with adults. When Charles showed interest in his game and then began talking to him in a normal voice, commenting on his progress and marveling at his quickness, she saw from the corner of her eye that he began to drop his kinetic guard – the resistant posture he usually maintained with others and especially with figures of authority. When it became clear that Charles was much less proficient than he at the memory game, Cecilia observed, it boosted his confidence in himself and in others. It produced a crack in the stereotype he held about the threatening nature of adults and the usually constrictive character of their supervision over someone like himself. But it was especially Charles' initial show of ineptitude at the game which caught João's attention – and his sense of humor, which she, Cecilia, had never observed before.

Charles assured her that his ineptitude at the game was authentic, and Cecilia replied, "If you had only been pretending not to be as good as he was, he would have known. He is very astute, very sensitive, emotionally and psychologically, to the slightest hint of insincerity or untruth... He did not see it as failure. I think he saw it from the inside, as a struggle." João well knew the struggle to remember from deep within himself. Perhaps he saw in Charles' relative inability that he was not alone in this struggle. As Cecilia said, "Maybe it's the first time he ever felt he was not alone. Or maybe it has happened before, here at Clicar, but it was not so obvious. The fact that you sat down next to him, an adult with grey hair, a possible threat, and he saw your struggle, maybe that was just the next step in a long journey for him."

## Discussion

In this article, we have focused on children's interaction with each other and with computers in elemental activities available to them at Projeto Clicar. We have seen that these activities provided for shared experiences and meanings, for problem-solving skills – both physical and emotional – that represented an emerging orientation to others and to oneself as a learner. This emergent sense of self – of placing oneself in time with others – in turn provided for an anticipatory stance to the world of others and to the tools of learning, a stance that itself mediated the individual's passage to higher levels of cognition and social development. The specific character of the children's participation, though initially conditioned by their own life circumstances, was in the course of time framed by the artifacts with which they engaged and by the interactions that took place through the mediation of those artifacts. In time, through their engagement in a shared system of learning, the character of their participation changed – they came to recognize themselves and others in a shared world. As they built on their cumulative experiences with the artifacts and activities in the program, they also came to recognize the continuities that situated them, that defined their place in the program – a place where they could see that they had been active players, again and again, where they knew they were welcome and able to return, where they recognized that they belonged.

We have observed how João learned to carry out activities which on the surface seemed fairly simple. By looking closely and not taking his learning process as given, we were able to see that those activities were not at all simple. The memory game was for João a series of problems to be solved, a digital world to be read and acted on. João's long-term trajectory in the ongoing process of participatory appropriation is beyond the scope of this paper. We have focused here on a few moments of his

development, to show how, through his active engagement with the tools at hand and with others around them, he came to master the games, and in the process, his own capacities for perception, attention, and remembering. João's example is important because it suggests the significance of developing appropriate mediational processes not only for setting the stage for social and cognitive development in general, but also for establishing the conditions for social inclusion. Projeto Clicar framed the children's activities so that they experienced their own emergent mastery, not only of the material world of Clicar, but also of themselves as social beings in concrete acts of memory and purpose with specific others. This engagement in a developing community of learners provided the tools for both the social integration of their disparate pasts and the anticipatory imagination of new ways of relating and being in the world.

**Acknowledgements:** The authors wish to express their deepest gratitude to Professor Ernst Hamburger (Universidade de São Paulo), the renowned physicist and visionary Director of Estação Ciência, for his many years of support to Projeto Clicar, its educators, and the children the program served. We also wish to thank Marcos Matsukuma (Universidade de São Paulo), without whose comments and contributions this article could not have been written.

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### Formato de citación

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- Underwood, CH., Pranzetti, D., y Toloza, M. (2014). The Memory Game: Medial processes in social inclusion. *Psicología, Conocimiento y Sociedad*, 4(2), 163 – 188. Disponible en: <http://revista.psico.edu.uy/>
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## Endnotes

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<sup>i</sup> As Directors of Projeto Clicar, Pranzetti and Toloza were professionally active in the site's organizational and pedagogical activities almost daily for over seventeen years, while Underwood took part in successive extended visits to the site over a five-year period. In carrying out our professional responsibilities, we maintained a vigilant observation, kept field notes, archived artifacts of children's work, and held many discussions among ourselves and with undergraduate mentors about the learning processes among the children with whom we were participating and observing.

<sup>ii</sup> To avoid the pejorative connotation that the word "romantic" connotes, we draw on its etymological implications and use the term "narrative" instead.

<sup>iii</sup> In forthcoming research, we discuss how children's participation in higher level activities like Internet explorations and digital storytelling are transformed to provide further integration of this sense of self among others.

<sup>iv</sup> As Scheper-Hughes (1992), Hecht (1998), and others have noted, the term "street children" masks a multifaceted reality; many have come to use the term "meninos na rua" (children on the street) rather than the former "meninos da rua" (children of the street) to acknowledge this complexity and diversity of life circumstances.

<sup>v</sup> From 1996 to 2012, over 900 young people (age 5-18) participated at Projeto Clicar per year, with about 30-50 each day. Some children took part in the program 1-2 days a week, and others were there almost every day. At least 1,500 entered the program as young children and continued over a period of years through adolescence. In all, during this period, more than 3,500 young people (by the most modest estimate) participated at Projeto Clicar.

<sup>vi</sup> We use our first names in this narrative, since the children at Projeto Clicar referred to all the educators in this way.