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Intellectual disability in kindergarten: possibilities of development through pretend play

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Abstract

In this study, we explored how children with intellectual disabilities engage in activities with peers through pretend play, and the effects of this on their development. We analysed video recordings of interactional moments of play activities, aiming to identify how regulations and (co)regulations of behaviour are constructed and carried out between peers with significant developmental differences. Our methodology was based on the Network of Meanings theoretical framework and micro-genetic analysis. The results revealed three important elements: (1) reciprocity in the dynamics of regulating behaviour; (2) improvement in the structure and development of play through interaction with others; and (3) the possibility of the child with the intellectual disability to lead the play, showing that cognitive aspects are not the main reference points for children to engage in joint attention\collective activities.

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1. Introduction

Studies in human development psychology have been, for the past century, an important guide for different areas of knowledge. These studies have based professional practices in education, health, and social spheres over the world, setting guidelines for the construction of practices and interventions. The relevance\role of play, especially pretend

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play, is one of the countless explored topics regarding the process of development of young children. Play has been identified as one of the most important activities of childhood (e.g. Kishimoto, 2002; 2012; Kishimoto & Vectore, 2002) and has been considered a *sine qua non* condition for human development (Ginsburg, the Committee in Communications & the Committee on Psychosocial Aspects of Child and Family Health, 2007). The knowledge about play base practices in kindergarten, preschool, and early years of elementary school, and are part of the daily routine of children in school (Zigler & Bishop-Josef, 2004).

Due to the importance of pretend play, it was one of the foci of our research. In this sub-study, we are interested in the interaction between children when one of the children had an intellectual disability. In particular, the situations of pretend play were significant moments that led us to discuss human development and peer interaction in kindergarten.

Intellectual disability is usually recognized as one of the most difficult challenges to overcome in the implementation of an effective inclusive practice (e.g. Plesch, 2010). It could demand curriculum redesign, different practices, specialized intervention and, above all, a distinct comprehension of human development. Even with all the advances in the area and the knowledge accumulated over the past twenty years, there is still the need to explore the process through which children construct their culture and engage in social interaction. Moreover, we consider it important to look into how children construct a pretence and how, even with such significant differences in development, they share meanings in kindergarten, since play is a central element in the curriculum. Therefore, considering the challenge of inclusive education and the need to deepen our understanding on the topic, the aim is to discuss the possibilities of engagement and development for children with such disability in a mainstream context.

To achieve our purposes, three issues are discussed. The first is related to the challenge of understanding the process of imagination, abstraction, and pretence for children with intellectual disability. For this, we bring out the necessity of overruling the understanding that imagination is an isolated cognitive ability. We bring data that can help us look into the process of interaction where the play is constructed, and we argue that the emphasis on the dichotomy between cognition and emotions can no longer be applied.

The second point relates to the process of interaction itself and the affordances that ‘others’ (peers) could provide for the development of pretence in the setting of interaction. In that sense, we consider how non-individualistic perspectives or, other in words, an Enactive Account (Rucinska & Reijmers, 2014; Rucinska, 2015) or a Social Subjectivity view (González-Rey, 2015) allow new comprehensions of the phenomenon.

The third element pertains to our concerns regarding the unilateral view that dismisses the possibilities that children with intellectual disability can engage in and lead collective pretend play, due to a possible lack of specific cognitive and social resources among them. We believe that children with intellectual disability do not just participate, engage in, and construct meaning in pretend play, but also are able to lead the activity, even considering the intellectual deficits that are present in their condition.

For the construction of these arguments, we will start presenting, briefly, our theoretical path. Just after, in a proceeding section, we will present the methods used for the construction of the research corpus and the methodology for the analysis. This will be followed by the ‘Findings and Discussion’ section, wherein we will present the data and emphasize the contributions of the new approaches. To conclude, we will acknowledge the limits of our attempts and note our final considerations on the topic for future investigations.

1.1 *Imagination, pretence and intellectual disability*

When Vygotsky (2004; 2014) described the ways in which children develop their ability to create, to imagine, and, therefore, to abstract the world, he emphasized the necessity of using preview elements (signs or experiences) to compose the behavior or idea that was being created. The ability to relate different elements is constructed and developed during this process and is stimulated according to the social situations the individual is involved in. Therefore, the definition provided by Vygotsky is well accepted by many other scientists that were concerned about this matter. However, when discussing the concept of imagination under the topic of pretence, specifically pretend play, it is not possible to identify the materialization of the imaginative process explained by Vygotsky in his works. The dialectic and inseparable relationship between the individual and the social components that mark Vygotsky's arguments are replaced by more intellectualistic views on how pretence is originated and developed, invoking mental representation to explain pretence.

To make this point more clear, we need to consider Piaget's (2014) definition of pretence as the capacity to represent an object symbolically. Therefore, by understanding pretence objects and actions as symbolic objects and actions, we can consider the origins of the mental representational process as belonging to the individual. In other words, these symbolic objects and actions are one's own capacity to explore and organize the world. Even knowing that Piaget (1967) recognized and emphasized the importance of interaction for the developmental process, his theories explain purely how cognitive abilities could be constructed, dismissing the role of emotions and mediation to the process. His perspective marks the requirement of certain neurological achievements for learning possibilities, meaning that cognitive development comes first, making the child available for learning in the process.

However, what happens when the child does not follow the same path of cognitive development as the others? Would it mean that this child is not yet ready to explore the possibilities in the environment that requires such abilities? What happens when the child has not yet achieved the stage where symbolic games are a reality when playing by oneself?

Keeping these questions in mind, we proceeded to recent studies and reflections on the development of pretence to get a grasp of what theoretical reflections could tell us about pretence. In that field, as pointed out by Rucinska (2015), we find different mental approaches to the origin of pretence. Nichols and Stich (2000; 2003) confirmed that pretence is guided by mental contents, and that children have to gather as many mental models as possible to ensure appropriate behavior, and that in pretence, they exercise those mental propositions. For that process to happen, a complex structure of observed elements, beliefs, and capacity to plan have to be accounted for. The limitations of this explanation pertain to its own complex and inflexible way of elaborating the process (Rucinska, 2015).

Moving to a less intellectualistic comprehension, Van Leeuwen (2011) constructed the idea of guide to pretence based on a model account (mental representations guided by imaginings of different forms) that defends the origins of pretence through the existence of a perceptual input (internal representation of motor commands) and the combination of various forms of imaginings, instead of mental representations. The crux of this theory is that pretence requires the integration of mental but also perceptual representations (representations bodily movements) to result in the imaginations that guide the pretence play. The pretence, in his words, is an imitation of the mental images or other imagined contents (Van Leeuwen; 2011). Based on this perspective, pretending cannot be understood only as imitating, as confirmed by Rucinska (2015). Even though Van Leeuwen brings a completely new perspective to the subject, this is not enough to help us unveil the ways in which the elaboration of pretence happens in its full combination.

The mental representation model assumes that cognitive abilities, in one way or the other, are the guides for pretence, and that pretence is rather an imitation of the life that cannot be lived at the moment. There is, however, a disregard towards non-verbal communication, body expressions, and emotional connections. All these elements that would justify either our beliefs or the motor scheme are present in the experiences that we construct within the environment in the first place.

Nevertheless, what we will see is a normative idea that imagination, as an ability present in the process of pretence, has its origins in and by the individual. In other words, for the individual to be able to engage in the activity of pretence, he has to have already developed the demanded ability. The characteristics of that ability and the elaboration of its complexity can be identified throughout the development of the child, taking as a reference their behavior and response to the pretence in action. These assumptions have in common that the development foresees the learning situation (in this case the play itself, in a collective or in an individual way). The child has first to present the cognitive resource to be able to perform the action.

What happens when those cognitive abilities are not identified in the child when she/he is playing by herself/himself, but is manifested in joint activities with others? When considering pretend play by children with intellectual disabilities, we noted a lack of literature that could help us understand the dynamics of the development of such individuals. Moreover, the present explanations of how pretend play is structured that are related to human development (Funkhouser and Spaulding, 2009; Van Leeuwen, 2011; Nichols & Stich, 2003) do not seem to offer sustainability to discuss the behaviours and the process that we observe among children.

Nowadays, one of the most challenging situations in the educational scenario is the structuring of pedagogical practices that offers possibilities for children with disabilities to develop and be effectively included in mainstream schools. Considering that play is a constant part of children's routine and acknowledging the relevance of this action to human development, we believe that to be able to achieve such high goals, it is most necessary to deeply investigate how the process of pretence is constructed. We also believe that such a process relies on more than cognitive abilities – it requires and is pushed by emotions, construction of shared meanings, and non-verbal responses that are present in communication between children.

When coming back to Vygotsky (2014), we see that 'the development of imagination and intelligence are different from each other in childhood' (pp. 38), implying that understanding the process of imagination should not be located side by side to the discussion on isolated cognitive abilities. In psychology, studies that focus on the investigation of development and intellectual disability are often conducted within that fragmented perspective (Pfeifer, Pacciullo, Santos, Santos, & Stagnitti, 2011). In this case, neither philosophical nor psychological approaches offer us the answers that we have been searching for, even if the findings are relevant, such as in the cause of Pfeifer's et al. (2011), which showed that there were significant negative correlations between children's motor severity levels and their elaborateness of play, indicating that children with greater motor limitations have diminished play ability. However, this still does not explain how pretence occurs.

From our viewpoint, for the educational field, prioritized knowledge is knowledge that can lead to changes in pedagogical practices. It is truly important that 'how' and 'when' are prioritized over 'why' and 'where' in research on the topic. Therefore, considering that the above issues and the necessity to increase strategies can enable the development of children with intellectual disability in mainstream educational and social contexts, this work is justified.

The aim of this study was to explore the process through which pretence is constructed and to analyse the participants and the movements that constrain the phenomenon. It is hoped that the data will not only reveal new perspectives but also contribute to the elaboration of further practices.

2. Methods

The method has its basis in the Network of Meanings – or the *RedSig* (Rossetti-Ferreira, Amorim, Silva & Carvalho, 2004) theoretical and methodological perspective. To explain briefly, *RedSig* is a theoretical path towards the understanding of human development in different contexts. Its key element is the consideration of the complex way in which cultural elements, social practices, and individuals are assembled, resulting in diverse possible paths to construct meaning and, therefore, in different processes of development.

RedSig has its origins in an investigative process from 1994 that focused on the process of adaptation of babies in day-care centres. The complexity presented during the investigative process led a group of researchers to find their own way through different theories, by assembling into a social-historical base (Vygotsky, 1991; 1993; Wallon, 1986) other perspectives and discussions (Rossetti-Ferreira, 2004). In accordance with *RedSig*, the assumption is that human development happens in a signification network into which individuals are inserted (and which individuals, at the same time, constitute). This network, which is structured by interactions between the individual with others, is immersed in social-historical and cultural elements, linked between them.

(--) the human development happens through complex processes, immersed in a mesh of semiotic nature elements. *(--)* people are found immersed in, constituted by and submitted to this mesh and, at the same time, actively constituting it, contributing to circumscription of possible trajectories, to his development, to other people development and situation they are participating in. (Rossetti-Ferreira, Amorim & Silva, 2004, 23)

From this perspective, it is the composition of all these factors that will define the path for development. In that sense, there is never only one possibility or way for development to happen, and there are no rules that predispose the future individual. Rather, development has multiple paths, and for each individual a network of its own exists. To understand this development, one needs to consider the complexity of human subjectivity within and at the same time consider the multiple social/cultural possibilities that compose the phenomenon.

Therefore, in regard specifically to the methodological contributions that guided the methodology of this study, the *RedSig* highlights three important methodological elements in the investigation of human development phenomena: (1) a study design that allows the comprehension of development as a result of multiple factors. The data collection process has to consider that the research will have to apprehend as much as it is possible from the field, in many cases having to combine different resources to construct the corpus; (2) the researchers' posture as a toolmaker. The pre-structured methods restrict the researchers' possibilities of immersion in the phenomena; therefore, they have to find their own ways to construct the corpus and to reveal its elements; (3) the data analysis process made in a relational way. The recognized complexity that composes the phenomena has to be considered during the analysis. The contradictions and the unexpected elements need to appear and for that, all the facts, information, and evidence, needs to be discussed in a relational dialectic dynamic.

In that sense, the focus of data collection, analysis, and results is on interactions. Depending on the questions of the research and the objectives of the researcher, the interactions are accessed through different perspectives (i.e. between children, between children and objects, between children and adults, between babies). In the case of this

study, the focus is on the interactions between children, considering that one of them (the focus child) has intellectual disabilities. Another area that is focused on is the interactions in specific moments of pretend play.

2.1 The RedSig Analysis

For the analysis of data, the Network of Meanings (*RedSig*) suggests a careful view of the interactive process that can be done through a qualitative thick description of scenes or a more delicate procedure that involves micro-genetic analysis (Góes, 2000). In this study, since a preliminary qualitative description of the data was done, the specific analysis procedures were taken directly with the micro-genetic analysis approach. Specific recordings that allowed us to discuss the topic of pretend play were selected for further analysis. By observing small children play, especially without any adult structured guide, it was possible to recognize how they created their own set of social rules; what the elements were that afforded the interactions to happen; how they communicated their thoughts and wishes; and when the construction of meaning could be identified. In this specific situation, the observation of how children overcome disabilities and of the significant cognitive differences in joint activities that, in theory, demand similar intellectual capacities was the centre of our concern.

The analysis process can be described as a careful and meticulous look into every movement, action, reaction, gestures and sound of the short scene selected (Goés, 2000). Each of the scenes chosen from the video descriptions passed through a three-step procedure. First, identification of the initial moment of the scene; second, isolation of the elements mentioned above (movement, action, reaction, gestures and sounds); and third, categorization of possible meanings due to the combination of all those elements.

2.2 The participants

The participants of this study were one child with an intellectual disability (Down syndrome), named Ignacio (age: five years) and his peers in kindergarten. The other participants were students from a public educational institutions located in a middle-size city of the State of Minas Gerais, Brazil. It is important to highlight that in the original research where this data were selected from, there were three focus participants (three children with intellectual disability). Ignacio's data composition was randomly selected between the subjects.

2.3 The data

The data comprised a portion of approximately 75 hours of video recordings of interactive moments between children in kindergarten. Each of the focus participants had approximately 25 hours of video that were taken during one entire school year (2014) in Brazil. The specific scenes that were used in this work were selected from the preview data analysis of this total amount of video records. The analysis offered a thick description of the main topic of interaction. Pretend play was considered an important element to be explored and therefore to be included in this further analysis.

2.4 Ethical issues

It is relevant to mention that all ethical measures were taken before and during the data collection. The research was approved by the National Comity of Ethics in Research with Human Beings, through the University of São Paulo. All ethical procedures were respected and the families were aware of and in agreement with the use of the information presented herein. To guarantee that all participants involved directly or indirectly in the research were in agreement with the methodological procedure, terms of free and enlightened permission were used and the research was conducted at no cost to the participants. Regarding possible benefits, at the end of the research, we will provide participants' families with feedback on the main findings of the study, and deliver a copy of the same. All participants' nominal identification data will be made anonymous. The video-recording data bank will stay archived in CINDEDI, ensuring the confidentiality of information that could, for some reason, expose participants' identity.

3. Findings and discussions

Considering the limits and purposes of this paper, an episode with four specific scenes was selected from the data composition to form the basis of discussions. Recalling that the original data are video recordings, therefore, selected moments were transformed into pictures aiming to report the essence of the analysis. The figures presented here had a specific filter added, enabling the identity of the children to be kept secret. In the selected episode, Ignacio is playing with plaster inside the classroom and his pretend play invokes different behaviours in others. Throughout the activity, different dynamics are established and an increase in the play's complexity is revealed.

3.1 The episode

Episode - Date: 21 May 2014, recording n.3 at 8'50'

Context: Children were doing a free activity with plaster. This activity took place at the same time as the pedagogical diagnostic process that the teacher was engaged in individually with the children. Ignacio walked around and between many groups during this activity execution, and because of the difficulties he faced in producing things with plaster, he was acknowledged by the teacher and received attention from the class monitor (Alessandra) at the beginning of the process. This kind of activity is very frequent in this classroom's routine, and it seems to be one that Ignacio really likes.

Description of scene A: *Ignacio is pressing a piece of plaster over the table. The monitor comes to his side and encourages him to make a birthday cake while reminding him of the activity of the previous day. Ignacio looks towards her and immediately put a wood stick over the plaster model. The monitor looks at Ignacio with open eyes and smiles, and, while holding her hands together in a clapping position, she asks what the wooden sticks are. Ignacio looks back at her and claps his hands, whispering something incomprehensible (he is starting a pretend birthday party situation). The monitor says that he should blow the candle. Ignacio steps back and claps his hand again, pretending to sing happy birthday (following his own rules for the dynamics of the pretence). At the same time, the two other children that share the table with Ignacio also engage in the play. The child (Gabriela) seated in front of Ignacio places a small stick in the plaster ball that she was making, and the student by his side (Arturo) focuses on Gabriela's activity and hums the happy birthday song along with Ignacio. Regina, who is sitting at the table behind Ignacio's, stares at the dynamics initiated by Ignacio, following them with her look and laughing at what happens. The monitor asks Ignacio to cut out a piece for her, but he moves away from the table and claps his hands again, now accompanied by other children. Ignacio then returns to the plaster, blows at the stick (representing the candle), and smiles at the camera, his classmates, and the monitor. He then cuts out a piece of the plaster and brings it towards monitor's mouth. Regina smiles at Ignacio. The children observe all this. Arturo claps his hand, sings happy birthday, and places two sticks in the plaster in front of him. Ignacio observes the interactions between his classmates while he rolls the plaster piece with his hands, making a birthday cake again (9'34'').*



Fig. 1. Moment at which Ignacio claps his hands and stages a birthday party attracting his classmate's attention. The start of the process. **Scene A.**

In this scene, Ignacio's actions drew the attention of Regina, who was sitting at the table behind him. She paid attention to his movements without being aware of any intentions on Ignacio's part to include his classmates in his activities. This behavior regulation started what gave rise to a sequence of (co)regulations along with almost forty minutes of interaction, showing how the elements of one moment continue to affect the group along with the whole activity. What interested us here is how that process happened.

The above scene shows the moment at which Ignacio's imaginative action caused regulation of behaviours, generating collective creative processes and the engagement of other subjects in the pretend play started by him. Ignacio started with what we could understand was a representation of a cake. The monitor suggested that he make a cake (the script was offered by an adult), and Ignacio created a representation of one (using a reproductive direction of human imagination: memory; Vygotsky, 2014). We were able to characterize the produced object as a cake due to the wooden sticks that were used as candles and Ignacio's movement towards these objects. At this point, we can say that the pretence started with a mental representation, but it is the continuity of the scene that particularly concerns us. Ignacio placed the wooden stick in the plaster and looked directly at Alessandra as he started the pretence of a birthday party, clapping his hands and (quietly) singing. The important element here that we would like to point out is the expressions and behavior of the monitor. She did not indicate in her speech the setting for a birthday party, but the non-verbal elements could have led Ignacio to engage in such a pretence.

At the same time that he was totally being influenced by Alessandra, he also seemed to be following his own sense of rhythm. He did not blow out the 'candles' and seemed a bit lost about what he had to do (he began looking around as if searching for something). Here, we cannot yet see many different elements of the pretence. The repertoire is quite short. However, the behavior of searching, and the rapid moments of exchange of eye contact and facial expressions leads us to believe that Ignacio was counting on others to build up the movement. We understand these fragments of interactions as evidence of what Gonzalez-Rey (2015) described as non-verbal communication elements that surround the social environments and create the possibility for social subjectivities to open a space for construction of meanings.



Fig. 2. The children near Ignacio start participating in the pretence.

This can be observed further on in the analysis of the part of the scene where Regina, like her classmates Gabriela and Arturo, regulated their behaviours due to Ignacio's pretence. From this moment, we can identify how a single idea, expressed more in movements and gestures than in objects itself, allows the construction and exchange of symbolic elements. A social process is thus materialized. Different subjectivities now rely on the same elements to build the pretend play. The sequence of (co)regulated behavior feeds the imaginative process of all the children that

are in the pretend activity, even though they are not yet aware of this and are not constructing it jointly and intentionally. The facial expressions, the movements, and the objects (cakes) become more elaborate, feeding back the whole process and gradually transforming the mentally represented object (cake) into a pretend birthday party scene.

Watching the dynamics of the scene, it is possible to conclude that for Ignacio, the responses of his classmates to the actions and the scenario that he was creating was the central element for the continuity of his further actions. The children paid attention (looking towards, responding to) to his gestures, body movement, and facial expressions much more than they did to the physical representation of the cake that he made with the plaster. The experience that Ignacio was representing is what was taking the rest of the children to engage in the activity, providing feedback for new constructions/creations.

In this sense, we believe that Rucinska's (2014) interactive approach to the understanding of pretence is more adequate to translate the process that we see happening: *"The immediate presence, attention and reactions of other participants (as well as spectators) affect and shape the type of performance (type of 'tea party' played) one is engaged in."* (p.14). According to the Interactionist Account, *"pretence is guided directly by worldly affordances and intersubjective engagements, without models or premises playing a mediating role"* (p.12).



Fig. 3. Ignacio offers a piece of the cake to the monitor, involving her in the scene once again.

Description of scene B: *Regina rolls the plaster and places two sticks on it (making a cake) and, looking directly at Ignacio, starts to clap her hands and sing 'Happy birthday to you.' Ignacio answers by looking back at Regina and smiling, and Regina smiles back and continues to sing.*



Fig. 4. Moment when Regina continues the pretence and waits for Ignacio's attention to proceed with the action. **Scene B.**

The implicit understanding and the non-verbal communication show that there is another kind of fluent exchange of meanings, a shared experience, that gives children the ability to create, recreate, and advance in pretence. The continuity of the performed story is specially stimulated by the emotions (enthusiasm expressed by jumps, singing, clapping hands, smiling, and applauding) present in the children during the process of creating a birthday party. Here, we would like to emphasize the claim of one of Ignacio's classmates (Regina). She seeks for Ignacio's attention and feedback, and she tries to involve him in her pretend story and offers him elements to support the construction of the play. The exchange of looks, laughs, and body movements are a combination of affordances that allow Ignacio and Regina to advance in the pretend play scenario.

The experience with others showed in this scene open space to discussion about the role of interactions in the construction of shared meanings, focusing on the emotions and implicit response of others instead of prioritizing cognitive and intellectual aspects that are required for the pretence to happen. González-Rey (2015) helps us to understand this dynamic when discussing the concept of social representations,

“Social representations as subjective configurations should be understood as a complex blend of subjective senses on which social actions are grounded. SRs take many different paths within those socially shared activities. It is impossible to define social representations by their objects, fragmenting them into different isolated entities, as has been done in many studies on this subject.” (González-Rey, 2015. p16)

González-Rey (2015) also offers insights emphasizing that the living experience is what guides us to the construction of meanings, which in other hands construct all the structure of our social life and world. Both in regard to what concerns the imaginative ability, and the capacity of carrying on the representation, the recollection of emotions previously experienced are understood here as evidence of development processes caused by peer interaction. It is believed that this episode gives evidence of what was argued at the beginning of this study: interaction itself and affordances that the other (peers) could become/provide for the development of pretence in the setting of interaction.

Another point that has to be highlighted is that, unlike what could be expected, the process starts with the child with intellectual disabilities. It is the pretence, proposed by Ignacio, that arouses interest in other classmates, showing how children with intellectual disabilities are active in the process of meaning construction and how they can be a reference point for classmates without any disability. Such behavior opens up a space for discussion on what would be the mechanism adopted by children to establish their references in classroom contexts. This episode offers data to state that cognitive capacity or intellectual ability is not a principle or criteria for children to elect their preferential peer. Despite the cognitive and verbal abilities being in different levels of development, children recognize Ignacio as an active peer, socially locating him in the same developmental zone in the school context.

There were other groups of children creating objects and stories, and pretending in their own ways at the same time. However, a specific element linked to the individual (Ignacio) and the experiences that he offered/allowed within his interactions provided possibilities for children to engage in joint activities.

Referring to the specificity of imaginative and/or creation activity, according to Vygotsky, it happens because of *“experience dependence, the need and interest in which it is based”* (Vygotsky 2014, p.31), where the environment that surrounds the subject as an important element. The other actions that permeate this social environment are, according to Vygotsky (2014), inherent to the process, since *“as individual as it looks, all the creation always contains in itself a social component. In this regard, any invention is individual in the strict definition of the Word: in every invention always exist an anonymous collaboration”* (Vygotsky, 2014. p.33). Thus, the behavior of

regulation demonstrated in this episode offer elements to reflect on how the processes of imagination, creation, and fantasy will develop and constitute the relationship of the child with reality.

Imagination and creation are considered by Vygotsky (2014) to be elements important to the human development process, because they are directly related to the richness and the variety of the experience accumulated by man and are considered masterpieces through which fantasy constructions are elaborated. The imagination is a sine qua non condition for man's transformation in society. It is through this imaginative capacity, leading to fantasy and creation, that man "*can imagine what he never saw, will be able, through the description of others, represent to himself the description of what never existed in his personal experience (...) he can go further his borders. Assimilating with help of imagination the historical and social experience of the other*" (Vygotsky, 2014. pp. 15).

Description of scene C: *All the children near Ignacio – Regina, Arturo, Loren, and Gabriela – sing 'Happy birthday to you,' clap their hands, and create their own versions of a pretend cake, as though sharing the same pretend story.*



Fig. 5. The engagement of more children in the play. The moment becomes collective. **Scene C**

Description of scene D: *Ignacio is manipulating a piece of plaster and now doing other objects. He listens to Regina singing 'Happy birthday to you' again, now more loudly. He turns in her table's direction, stands up, and goes toward Regina. He bows in the direction of the plaster ball with the wooden stick on it and blows on it.*



Fig. 6. Scene in which Ignacio blow the candles of the pretend cake. **Scene D.**

In this scene, in that explicit a moment of linkage between imagination and reality (represented by the action of pretending to be at a birthday celebration moment), the children in the make-believe process revive the situation of celebrating a birthday. They do so by using features (smiling, clapping hands, physical exaltation, verbalization) and emotions that would be related to this moment, allowing the group to reconstruct a moment previously lived (birthday party). Ignacio participates in this process equally, not only through observation but also during the action, presenting movements that start and perpetuate the collective imaginative construction. Ignacio gradually presents different behaviours of response, such as mutual looks, body positioning toward Regina's table, clapping hands encouraged by Regina's expression, standing up and going in the direction of Regina's table, and finally blowing on the stick representing a candle. This situation shows how Ignacio participates, constructs, and engages in the play's collective dynamics, changing places in the leadership of the pretend play.

This is a complex learning process that passes through imitation as well the imagination and spontaneous attitude of social relations. An apprenticeship cannot be directly related to school specific content, but it is part of children's psychological development in school contexts. In this sense, it is understood that this is a situation that both shows the connection established in behavior regulations and co-regulation and offers evidence for discussion on the role and potential of age peers in the development of children with intellectual disabilities.

4. Final considerations

If we discuss this element through internalistic/individualistic views of pretence, by either linguistic skill (Nichols & Stich, 2003) or imaginative ability (Funkhouser & Spaulding, 2009), we will be trapped in the normative thinking that leads us to account for the cognitive, mental guides required for pretence. In the situations with the child with intellectual disabilities does cognitive requirements are in disadvantage, or are not present in the same way as for other children. Therefore, the pretence is evaluated as an imitation, a mimic of the environment. With the data presented, we can see that imitation is part of the process, but not the whole path. Participants are not just engaged in imitating, even though we recognize and support the importance of that process, as pointed out by Vygostky (1998). Much more than that, when looking at things through the embodied perspective (Rucinska, 2015) and the concept of social subjectivity (González-Rey, 2015) as a theoretical guide, we can track down how the process is happening and, from that structure, develop further reasoning that may help the development of pedagogical practices in the educational environment.

Pretend play is a part of everyday life in school contexts for children, and by looking into interactive moments throughout time, we believe that even more elements related to how development is constructed can be discovered. Here, we highlight four aspects found relevant: (1) reciprocity in the dynamics of regulating behaviour; (2) improvements in the complexity of the pretence during social engaged activity; (3) possibility of children with intellectual disabilities leading pretend play; and (4) contributions of the Interactive Account of Pretence and the concept of Social Subjectivity to the enlargement of the views on this matter.

The reciprocity in joint activities is an expected element. However, this is not considered to be the case when talking about children with intellectual disabilities. Here we see clearly that behaviours or movements coming from one child in the classroom can possibly influence another, even in situations where individuals have significant differences in their development. We can also testify to advances in the construction of the pretence throughout the activity when it is happening jointly with others. As the theories in which we base our work already mention, the others in the situations becomes affordances for the process to happen. Through this, it is possible for us to discuss that the cognitive structure pointed out by Piaget as a requirement for pretend play can actually be used in the course of development within the process, reaffirming the relevance and the role of shared experiences in the learning

process for the human development. The concept of social subjectivity shows us how intrinsic the cultural elements and the construction of meanings are to the process of development.

When discussing the leading role of the child with intellectual disability in the collective pretend play, this specific fact is understood as a sign that significant differences in the cognitive aspects (or intellectual development) are not the main reference for children to engage in joint attention\collective activities and, therefore, are not a distinguishing criterion to predict human global development. This also shows that in mainstream school environments can offer different possibilities not only for the child with intellectual disability, but also for the ones that have typical development. What is emphasized here is that emotional experience guides the process of interaction, rather than verbal ability or adult's mediation. These findings suggests that strategies and interventions based on the promotion of those interactions are important and can be significantly relevant to achieving an educational environment that contemplates inclusive practices and better outcomes for the development of children with intellectual disabilities in mainstream contexts.

We recognize the limitations of this study and the necessity for further explorations on this topic, but we will end here by summing up that the further we understand the multiple possibilities of human development, the better we can find ways to cohabit in equality.

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References

- Funkhouser, E. & Spaulding, S. (2009). Imagination and other scripts. *Philosophical Studies*, 143, 291–314.
- Ginsburg, K. R. (2007). The Committee in Communications & the Committee on Psychosocial Aspects of Child and Family Health. The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics*, 119, 182–191. Doi: 10.1542/peds2006-2697.
- González-Rey, F. (2015) A new path for the discussion of social representations: Advancing the topic of subjectivity from a cultural-historical standpoint. *Theory & Psychology*, 1-19 DOI: 10.1177/0959354315587783
- Kishimoto, T. M. (2002) O brincar e a qualidade em uma instituição infantil. *Licere*, 5, 23–32.
- Kishimoto, T. M. (2012) Jogos infantis. O jogo, a criança e a educação. 17. Edition. Petrópolis: Vozes.
- Kishimoto, T. M. & Vectore, C. (2002) Por trás do imaginário infantil: explorando a brinquedoteca. *Psicologia Escolar e Educacional*. 5(2), 59-65.
- Nichols, S & Stich, S. (2003). *Mindreading: An Integrated Account of Pretense, Self-Awareness and Understanding of Other Minds*. Oxford: Oxford University Press.
- Nichols, S. & Stich, S. (2000). A cognitive theory of pretense. *Cognition*, 74, 115–147.
- Rucinska, Z (2014) What guides pretense: Towards the interactive and narrative approaches. *Phenomenology and the Cognitive Sciences*. DOI 10.1007/s11097-014-9381-z
- Rucinska, Z & Reijmers, E. (2015) Enactive account of pretend play and its application to therapy. *Frontiers in Psychology*. 6, 175. DOI: 10.1007/s11097-014-9381-z.

- Pfeifer, L.K., Pacciullo, A. M., Santos, C. A., Santos, J. L. & Stagnitti, K. E. (2011) Pretend play of children with cerebral Palsy. *Physical & Occupational Therapy in Pediatrics*, 31(4), 390–402.
- Piaget, J (1967) *O raciocínio da criança*. Rio de Janeiro: Record.
- Piaget, J (2014) *A formação do símbolo na criança*. São Paulo. Geh Ltc Publisher.
- Van Leeuwen, N. (2011). Imagination is Where the Action Is. *The Journal of Philosophy*, 108(2), 55–77.
- Vygotsky, L. S. (1998) *Psicologia da Arte*. São Paulo: Publisher WMF Martins Fontes.
- Vygotsky, L., S. (2004) Imagination and Creativity in Chidhood. *Journal of Russian and East European Psychology*, 42(1), 7–97.
- Vygotsky, L. S. (2014) *Imaginação e criatividade na infância*. São Paulo: Publisher WMF Martins Fontes.