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CHARACTERIZACION OF OBJECTAL ACTIONS AND VERBAL PRODUCTION IN PRE-SCHOOL AGE

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ABSTRACT. The topic of favorable conditions for verbal development is opened in psychology. The question about the nature of such conditions hasn't been solved. According to activity theory, it is possible to study aspects of psychological development no as isolated functions, but in relation to the main activity at each stage of development. The objective of the study was to establish a relationship between stages of play with objects using symbols and verbal production in preschool children. For the interactions with children, the Protocol for *Evaluación del desarrollo para niños preescolares menores* (Solovieva & Quintanar, 2014) was used, and a semi-structured interview was applied with the caregivers in order to specify the type of actions and orientations Predominant in family. We identified a relationship between studied phenomena and a significant correlation between the variables of actions with objects, verbal expressions and parental orientation. The stages of acquisition of actions with objects were determined together with the specific necessity of use of animated toys for verbal development. We discuss the usefulness of the protocol for diagnosis and interaction with preschool children, as well as for the formulation of intervention and development programs at this age.

Keywords: Preschool age; actions with objects; verbal development.

CARACTERIZACION DE ACCIONES OBJETALES Y LA PRODUCCIÓN VERBAL EN LA EDAD PREESCOLAR MENOR

RESUMEN. El tema de las condiciones óptimas para el desarrollo verbal del niño preescolar menor aún sigue abierto en psicología, y surge la pregunta acerca de la naturaleza de dichas condiciones. Desde la teoría de la actividad se plantea la posibilidad de análisis de fenómenos del desarrollo no como procesos aislados, sino como elementos de la actividad que predomina en el desarrollo del niño en una u otra etapa. El objetivo de este estudio fue establecer una relación entre la adquisición de las acciones objetales y la producción verbal en niños preescolares menores. En el estudio se valoraron los niveles de adquisición de la acción

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objetal, comunicación verbal en el juego y la forma de interacción entre niño y adultos que predomina en familia. Para las interacciones con los niños se utilizó el Protocolo para *Evaluación del desarrollo para niños preescolares menores* (Solovieva & Quintanar, 2014), mientras que con los cuidadores se aplicó una entrevista para precisar el tipo de acciones y orientaciones predominantes en familia. Se identificó una relación entre ambos fenómenos estudiados y una correlación significativa entre el nivel de adquisición de las acciones con objetos, expresiones verbales y orientación parental. Se precisaron las etapas de adquisición de acciones con objetos y el paso al inicio de la adquisición de la función simbólica con el rol específico de uso de juguetes animados. Se discute la utilidad del protocolo para diagnóstico e interacción con niños preescolares, así como para la formulación de programas de intervención y desarrollo en esta edad.

Palabras clave: Edad preescolar; acciones con objetos; desarrollo verbal.

CARACTERIZAÇÃO DAS AÇÕES OBJETAIS E DA PRODUÇÃO VERBAL NA IDADE PRÉ-ESCOLAR

RESUMO. O tema das condições ótimas para o desenvolvimento verbal da criança pré-escolar ainda está em aberto na psicologia, trazendo questões sobre a natureza destas condições. A partir da teoria da atividade, se apresenta a possibilidade da análise dos fenômenos do desenvolvimento não como processos isolados, mas sim como elementos da atividade que predomina no desenvolvimento da criança em uma ou outra etapa. O objetivo do presente estudo foi estabelecer uma relação entre a aquisição das ações objetais e a produção verbal em crianças pré-escolares. Neste estudo se consideraram os níveis de aquisição da ação objetal, a comunicação verbal no jogo e a forma de interação predominante na família entre a criança e os adultos. Para as interações com as crianças utilizou-se o protocolo para *Evaluación del desarrollo para niños preescolares menores* (Solovieva & Quintanar, 2014), ao passo que uma entrevista foi aplicada aos cuidadores para precisar o tipo de ações e orientações predominantes na família. Foi identificada uma relação entre ambos os fenômenos estudados e uma correlação significativa entre o nível de aquisição de ações com objetos, expressões verbais e orientação parental. Foram especificadas as etapas de aquisição de ações com objetos e a passagem ao início da aquisição da função simbólica, com a necessidade particular do uso de brinquedos animados. Por fim, se discute a utilidade do protocolo para o diagnóstico e interação com crianças pré-escolares, assim como para a formulação de programas de intervenção e desenvolvimento nesta idade.

Palavras-chave: Idade pré-escolar; ações com objetos; desenvolvimento verbal.

Introduction

Traditionally, the topic of acquisition of actions with objects isn't so common within developmental psychology. The reason dues to predominant attention of specialists to the processes of verbal or communicative development, on one hand, and to the process of logic development on the other hand (Piaget, 1992). Both processes, communicative and logic development, are considered by psychology and linguistics as separated lines of

evolutional development of human spice. Both emerge spontaneously on the basis of some kind of favorable social conditions (Chomsky, 1968; Piaget, 1992). It's considered that, due to relation and communication with adults, the children might understand social significance of objects (Cruz, 1995). Gradually, children learn and acquire technical and operational usage of objects. The authors usually mention only that children acquire the usage of objects from adults. There's no specific consideration of importance of predominant kind of activity in early childhood as activity of the usage of concrete practical objects as particular kind of ontogenetic significant activity.

From the position of historical and cultural psychology and activity theory, acquisition of actions with objects or so called instrumental activity represent central line of development between first and third years of life (Obukhova, 2006). In psychological literature, these actions are understood to "[…] dominion of procedures of actions with objects, elaborated in human society" (Elkonin, 1987, p. 116). It's also possible to say about emerging possibility of appearance of practical action as broad exploration and manipulation of objects of culture. However, this isn't just simple exploration and manipulation, but manipulation, which includes necessarily cultural sense of usage of objects. It's understandable that the object might be used for satisfaction of some kind of practical goal and as representation of the same action with in play, within necessity of achievement of any practical goal by itself.

Elkonin minds that the usage of objects of day-to-day life emerge in situations when the child shows better motor manual abilities, can reach, receive and pass an object to an adult. However, another aspect is very important: the child is emotionally supported and greeted by an adult while using objects practically (Elkonin, 1980). This fact allows to establish the bridge between previous psychological age, first year of life, when affective communication with the adult is predominant kind of activity (Lisina, 1986). Gradually, during the same period of the first year of life, so called 'practical intelligence' would be conformed, in which the child learns to use practical operations with the objects (Elkonin, 1987). In the same period, consolidation of sensorial and motor schemes takes place, which prepare the origin for symbolic function (Piaget, 1992).

The dominion of the usage of concrete object would be achieved on the basis of continuous usage of the objects. The actions have precise goal and this precise goal has to be accomplished and anticipated by the child, which conduct to dominion of actions. This is how the child achieves generalization of perceptual features of objects on the basis of functionality of the objects, conforming the basis for acquisition of internal image of object (Galperin, 2009), These internal images help to provide anticipation of the result of proper action with an object. At the beginning of this process, the predominant aspect of the whole process is relation object-action withless emphasis on the sense of the action with object (real and present fulfilment of the action is the condition for understanding of the actin by a child). It's possible to suppose that the child acquires the action only in practical sense, but not in its symbolic generalized sense. When an object substitutes another object, same kind of action is fulfilled, but in a form of representation. The relation inverts at this very moment, so that the sense of the action fells at action object instead of action-action. Concrete action converts into symbolic action (Vigotsky, 1979). Starting with this moment, the function of the sign converts into semiotic social function: the child starts to use the objects with different senses, but always with the possibility of being understood in social communicative situations. The action of jumping with a broom representing a horse rider might be an example of this symbolic usage of an object. Another example might be feeding of a doll with buttons representing cakes. In these situations, the child is creating new meaning (sense) of known objects. The main point of all these situations is that they are

understandable for the other participants of the same communicative situation. The sense emerges always inside the action with an object and can't be separated from this situation.

The previously expressed position might be evidenced in the capacity of the child for representation of action of other people and in appearance of symbolic play starting from approximately the age of two years (Obukhova, 2006; Solovieva & Quintanar, 2016). The play with objects permits the child to apply, in a practical way, the usage of the same object in diverse situations and to act complex related chains of actions related to the same topic. Spontaneous identification of diverse features of concrete objects emerge as new empiric quality on the basis of usage of actions with objects. Evocation of the same action, actions and situations of the usage of the object with and without the concrete presence of each object and reproduction of series of actions in variety of contexts appear very soon as another achievement of development (Solovieva & Quintanar, 2016). Gradually, during play with objects, the child substitute one object by another and fulfills the actions of representations in combination with real practical actions. It's even difficult to separate so drastically real actions from representative symbolic actions. As a consequence, the object and the action lose their purely concrete nature and pass up to generalized nature of possibility of representation of technical aspect of the action, its verbal and non-verbal meaning.

At the end of this stage, new psychological formations as qualitative achievements of the age appear (Vigotsky, 1996), expressed in precision of the meaning of the object, designation of the sense to the actions, perceptual generalized categorization of objective world and thinking on the level of concrete actions. The world of actions with objects, is characterized by orientation towards knowledge of external cultural world (Elkonin, 1980). Developmental psychology has noticed that the absence of actions with actions in infancy might have negative consequences on verbal development, acquisition of voluntary movements and, in general, in all psychological functions which emerge thankful to practice of usage of objects (Liublinskaia, 1971). As a consequence, symbolic function appears on the basis of practical actions with objects, so that the absence of this practice produces important obstacle for development of symbolic function (Salmina, 2010).

Later one, at the basic pre-school age, poor development of symbolic function becomes an obstacle for inclusion of the child into complex activity of play with thematic roles. From the very beginning, the play of thematic social roles is based on primary symbolization of object by another, which converts into acceptation of the role in a play (Elkonin, 1980). This acceptation of the roles means possibility of substitution at superior level: the child by her/himself accepts and realizes a social role.The role serves as a substitute of the social function of an object. Later on, this function develops a new complex level, which implies reflexive and conscience explanation and representation of diverse situations with the usage of symbols and signs (Solovieva & Quintanar, 2017). On the basis of symbolic function, the child forms cognitive abilities for generalized knowledge and conforms the fundaments for conceptual thinking (Vigotsky, 1979).

Some studies have shown that the influence of social environment is determinant for psychological development and cognitive functioning of the child mentioning an importance of usage of the objects during early age. For example, the importance of influence of functional play (play-exercise of the first and second year of life, in which the usage of practical objects might be observed) for the level of acquisition of language in little children of the age of 13 month was noticed in some studies (Bates, Benigni, Bretherton, Camaioni, & Volterra, 1979) and of age of 22 months in the others (Ungerer & Sigman, 1984). Same effect was stressed for older pre-school children (Lewis, Boucher, Lupton, & Watson, 2000).

McCune (1995) reports that smaller children might relate the first word to appearance of symbolic play in 'self-pretend' modality (show an action of drinking of liquid from an empty cup) and in 'other pretend play' modality (give the drink to a doll). In longitudinal studies, this author stresses the existence of positive relation between play abilities and posterior verbal development. Other authors also tried to identify correlations of symbolic play with verbal abilities both in expressive and impressive language (Clift, Stagnitti, & Demello, 1988; Doswell, Lewis, Boucher, & Sylva, 1994; Lewis et al., 2000; McCune, 1995; Ungerer & Sigman, 1984).

It's interesting to observe that in many cases psychological studies don't make any distinction between actions with objects, which implies correct usage of cultural object, and symbolic actions which implies substitution of on object by another (Salmina, 2010; Solovieva & Quintanar, 2016). According to our opinion, the examples presented by these authors refer precisely to actions with actions with objects with cultural goals and no to symbolic function. Our previous studies have shown that symbolic function appears as a substitution of one object by another. In these cases, a new meaning (sense) is given to the object, which is already known and the action might be fulfilled at one of the levels such as materialized, perceptive or verbal without the presence of substituted object (Solovieva & Quintanar, 2016). The object (image or word) which plays the role of substitute has to be presented and used in representative action. Only established and specially organized orientation might contribute for acquisition of more advances levels of symbolic substitution in play (Solovieva & Quintanar, 2016, 2017; Solovieva & Garvis, 2018).

Among other important aspects of child development, it's necessary to mention the type of relationships established between parents and child and the level of development of playing activity of each child. Slade (1987) has mentioned higher level of play in children, if the parents interacted and supported the imitation with more frequency in comparison with parents who didn't do it. There's no doubt that specific conditions of environment (the objects of usage of the child and the orientation of an adult) might play favorable role or be obstacles for playing activity of the child. For instance, psychological studies have discovered that little children aren't only eager to obtain adult's acceptation during interaction with objects, but also, at the moment of touching of objects; the children also are eager to be conducted, orientated and regulated by adults (Moro & Rodríguez, 1991).

It was pointed out that this kind of close interaction between adult and child is based of feedback and is very important for human being; same kind of behavior wasn't detected in superior primates. Tomasello (2013) has noticed that children about age of one year old use more time to interaction with objects in comparison to superior primates (chimpanzees). The babies spend double time in observation of objects then monkeys in situations of interactions with objects (instruments).These data suggest great importance of interaction with objects in early infancy and its generic relation to the process of acquisition of language, which also takes place in early infancy. Nevertheless, the majority of well-known tasks are focused on assessment of psychomotor ore verbal development. Other tasks are focused on intellectual development evaluated by psychometric tests It's possible to put different examples of such instruments for assessment of development such as: the Scale for Psycomotor Development of Brunet with adaptions of Berum, Barnetche and Alvarado (1967) with the objective of measurement of coefficient of development; the Scale of Bayley for early development (Bayley, 2006), *Inventario de desarrollo Battelle* (Newborg, Stock, & Wnek, 1996) and the Battery of Kaufman for children (Kaufman & Kaufman, 1983), among others. None of these famous instruments permits to characterize the dynamic of acquisition

of actions with objects. No known neuropsychological scheme for assessment of development pay any attention to the level of development of actions with actions.

The goal of this article is characterization of the level of acquisition of actions with objects within procedures of playing activity with objects and toys in minor pre-school children in relation to verbal production of children in dependence of type of orientation.

Method

Participants

Participant of this study were Mexican pre-school children (25 girls and 27 boys) of the age between 13 and 52 months old divided in three groups. The average age of the children was of 32.04 months. The first group consisted of children from 13 to 23 months old; the second groups was conformed of the children from26 to 35 months old, while the third groups consisted of children from 37 to 52 months old. All children assisted urban public kinder garden (city of Puebla) for workers of the sphere of education of the state (medium high socioeconomic level). Children's parents were also included as participants of the study. All parents sign informative agreement for taking part in the study, together with agreement obtained from the part of pre-school institution. Parental participation was voluntary and individual. All participants presented no difficulties in health and mental functioning and had no psychiatric neurological deficits. All parents were adequate in their day-to-day life and professional activities and described themselves as healthy and successful subjects. All parents presented medium high educational level and the majority of them worked for public sector of the city of Puebla.

Instruments

Assessment of the level of acquisition of the actions with objects was carried out with the help of the 'Protocol for acquisition of actionswith objects for miner pre-school children' (Solovieva & Quintanar, 2014). The aim of this instrument was to evaluate the level of acquisition of actions with objects by six tasks based on the usage of real objects and toys common for a child and consisted of: spontaneous actions with objects; actions with toys; actions with animated toys; substitution of un objects by another; symbolic representation. Consequent levels of realization of each task proposed by an adult were assigned in the instrument: accede independently, accede with the help of an adult; doesn't accede in spite of the help.

Another method of the study was semistructures interview applied for the parents with the aim of precision of the type of parental orientation, which might facilitate or make an obstacle for acquisition of actions with objects. This interview was designed specifically for aims of this study.

Procedure

The application of the protocol of assessment of the actions with objects was carried out in individual sessions with each participant (child) inside pre-school public institution scheduled according to previous agreement with parents and institution. The space of work was known for the children. The duration of each session was between 20 and 30 minutes. The application of the protocol was realized as a kind of interaction. All actions with objects, reactions and verbalization were noted for each child by psychologist.

Each interview with the parents was individual, scheduled according to previous agreement and occupied 20 minutes. All parent's answers were written down and transcribed by psychologist.

Results

This part of the article presents the results of the study, obtained during evaluation of realization of the actions with objects by children. The results of realization of the actions with objects are presented for each group of age. Afterwards, the data for verbalization are presented for each group. Finally, the data of interview of the parents follows.

In general, the results show that the task 1 (spontaneous actions with objects) and the taks 2 (actions with instrumental objects) was accessible for the majority of children and fulfilled independently by them (69.23% and 65.38% respectively). During realization of the task 3 (actions with animated objects), it was observed that 42.31% of all participants were able to fulfil the task independently. At the same time, 23% of the children were also able not only to accomplish the task, but also to provide series of coherent actions related to animated game.

The task 4 (substitution of un object by another), wasn't accessible for 25% of all children, while 36.5% achieved to fulfil the task independently and 34.6% could fulfil the task with the help of the adult.

In the task 5 (representation of an action with the absence of the central object) 15.3% of participants failed, while 44.23% succeed with the help of the adult.

In the task 6 (symbolic actions), 25% couldn't fulfill the tasks and 50% of participants were able to fulfil the task independently.

The analysis of the results of all participants permits to observe progressive possibilities for fulfilment of actions and representation of actions with the age of the children.

Results in groups

The data will be presented for percentage of children according to the type of response (in descendent order) for each group of age. The types of answers were as follows: correct response without external help of adult; correct response after external help; possible execution togethere with adult and impossibility to achieve the task after external help.

Group 1

In the group of children between 13 and 23 months old 48.88% achieved the majority of tasks after external help; 26.71% of children failed even after presented help; 13.38% could take part in joint action and 11.16% could work independently. None of the children was able to organize the sequence of related actions.

Group 2

As for the group of age between 26 and 35 months old, 56% of the children could manage the action without any help including 21% of children who fulfilled sequences of related actions; 25.5% fulfilled the actions after external help; 10.5% failed and 8.0% succeed in joint action.

Group 3

In the group of children with age between 37 and 52 months 53.8% of children were successful in actions independently and 44.4% completed sequences of related actions; 7.6% could work after external help and 1.8% failed after external help. There were no children who needed joint actions with the adult in this group.

The results have shown that no matter the group of age, more accessible spontaneous actions with objects and actions with content of objects.

Speech production and parent's orientation

During realization of actions with objects, psychologist registrated speech production of children. Speech production was classified in 5 levels: 0 = absence of expressive language; 1 = onomatopoeia and monosyllabic intentions; 2 = incomplete words / intents of combinations; 3 = complete words, neologisms and sentences of two words; 4 = simple phrases with the length of 5 to 8 elements; 5 = phrases of more than 8 elements and dialogue.

Analysis of speech production shows that the majority of little children from the first groups presented the level 1 and produced onomatopoeia and monosyllabic intentions. The second group presented disperse distribution of speech production at level 3: complete words, neologisms and sentences of two words. In the same group, same proportion of children presented level 4 with simple phrases with the length of 5 to 8 elements. In the case of the group 3, children presented the level of simple phrases and of phrases at the level of dialogue with more than 8 elements in phrases.

An interview was applied to all parents with the questions about family dynamic and participation of activities with inclusion of the children. The answers of parents were classified in three groups according to the quality and quantity of interaction in family. These types were as follows: poor interaction, irregular and frequent (constant).

The results obtained in the study show that very low percentage of the parents of the whole admitted that they don't orient the children at all (7.69%). There were 46.15% of parents who declared that presented irregular orientation and same percentage expressed frequent /constant orientation.

The analysis of the results according to these groups of the simple has pointed out that the participants who don't received parent's orientation have shown poor level of speech production and of actions with objects in comparison with the other groups of children who receive irregular or constant orientation. The average of better executions was two times higher for children who receive orientation in comparison with children who don't receive it. 80% of children who receive parental orientation fulfilled 80% of actions with actions independently and 68% presented superior level of speech production in all groups of ages.

Speech and actions with objects

On the basis of our observations and results during application of the Protocol, we might conclude that, in general, there 4 different levels of actions of actions. These levels are as follows: 1) play with the objects with practical content; 2) protagonized play with animated toys (Teddy bear) and repetition of same actions; 3) protagonized play with the usage of practical actions which represent sequences of actions with initial intent of substitution and representation of actions; 4) protagonized play with logic sequences of practical actions with usage of objects and evidence of symbolic simple substitution of one object by another. Qualitative analysis of the type of repose during the work with the tasks

of the Protocol permitted to identify types of actions with objects together with speech production of participants. A kind of correspondence between the level of actions with objects and level of speech productions was established. Such correlations were found independently of groups of age of the children included in the study. The level 1 of actions with objects corresponded to the level of onomatopoeia, monosyllabic intentions and incomplete words; the level 2 of actions with objects corresponded to speech level of complete words and neologisms; the level 3 of actions with levels corresponded to the level of simple phrases from 5 to 8 elements and the level 4 of actions with objects corresponded to the level of dialogue with more than 8 elements of words in sentences.

Discussion

Our study is related to the line of research with the goal of assessment of psychological knowledge of early age development. At the same time, the goal is related to the necessity of supporting optimal level of psychological development of little children. It's important to mention that there are few studies, which consider the usage of objects in a triadic interaction such as parent-object-child (Moro & Rodríguez, 1991). One of proposed goals f the study was characterize actions with objects in early infancy at the age between 2 and 4 years of life. According to results obtained in the study, it was found that actions with objects pass through different gradual level of complexity in childhood.

The youngest children (age between 13 and 23 month) may understand and fulfill better the actions with objects, when the objects have clear concrete instrumental content and start to use also animated toys (in less grade). More complex level of development of play actions might be achieved only with participation of an adult. In this case, children may fulfill simple symbolic actions with substitution of objects, without any objects or by other manner of representation of actions (the doll goes to sleep). None of children of this groups was able to fulfil this action independently. External help and animation of adult were always obligatory condition. At this age, there were no clear difference between level of parental orientation and speech production, so that all children presented initial stage of actions and speech.

In the group between 26 and 35 months, majority of children was able to fulfil correctly actions with object. Many of children were also able to realize symbolic simple actions: independent substitution of objects.

On the other hand, it's possible to notice that practically all children from 37 to 52 months old fulfilled all tasks independently and adult's help wasn't necessary for them. Children produced perfectly not only actions with objects, but also simple symbolic actions (substitution of objects and representation of actions with different external and corporal means). In synthesis, we may say that acquisition of actions with objects and the passage of actions with object to symbolic actions is gradual in infancy and corresponds to different level of complexity.

The first stage might be observed through the play with real objects with instrumental concreate content (comb, cup) realized independently by a child as if it were a kind of exploration of an object, assuming cultural adequate function of each object (combing, drinking). The actions are isolated at this stage and the child is likely to reproduce same action many times. There are no sequences of actions related to each other and symbolic actions are absent. We may call this stage as the first stage of actions with objects and its presence is very clear in the youngest children if our sample (age from 13 to 23 months old).

On the second stage of acquisition of play with objects, the child passes to usage of animated toys. The children are eager to fulfil same action constantly with animated toy/toys, such as 'to feed the bear and feed the doll'. The child would apply same action to different animated toys. It's important to notice that this stage was present in all groups of ages in our sample: from 13 to 52 months old.

The third stage of development might be characterized as the play with animated toy using different logic and sequential action to the same toy. At this stage, children may start using symbolic action more frequently and it happened at the age between 26 and 52 months.

Stage four could be called as complex play with objects of sequential play with objects and toys. The children use different toys and different actions and may fulfil sequences of day-to-day action with animated toys, using diverse creative substitutes. This stage was observed in major children between 37 and 52 months old

One of significant data, which we managed to find in our study, was the role of animated toys for acquisition of complex forms of symbolic play. It's likely that the presence and the usage of animated toys guarantees the acquisition of initial symbolic function in young pre-school children. All these mentioned stages of development of play actions are previous and obligatory for complex level of thematic play with social roles, known as characteristic of rector activity of basic pre-school age from 3 to 6 years (Solovieva & Quintanar, 2016). We would like to stress that such level play wasn't found in our participants.

It's possible to argue that the stage of acquisition of actions with objects, usage of animated toys and initial stage of substitution are obligatory conditions for possible development of play with social roles alter. At the same time, it would be difficult or even impossibly to pass to the level of complex play with social roles without abilities of broad usage of materialized and perceptive means (Solovieva & Quintanar, 2016).

Such findings agree with the authors who stress necessity of substitution of objects (Frádkina apud Elkonin, 1980), with the theory of formation of mental actions by stages (Galperin, 2009), with consideration of levels of development of playing activity (Elkonin, 1980) and with types of play mentioned by Piaget (1992). All these authors stress the necessity of the presence of real object (toy) before the possibility of symbolic substitution or verbal representation in children.

Our data allowed to identify that the child, initially, prefers to use real objects and toys, which represent real objects. Normally, the child requires adult's help to use these objects and toys. Proximately, the child becomes capable of acting with objects as substitutes. Finally, the child starts to represent actions with objects and pass to the level of symbolic actions and representative actions, which prepare him/her to the next psychological age: the age of collective play with social roles in groups of children (Elkonin, 1987; Solovieva & Quintanar, 2017).

Another relevant aspect identified in our research was that the speech not only show progress with age, but also that there is kind of significant positive correlation between productive speech and actions with objects. With complex level of play with objects, complex level of speech production might be observed. Lisina (1986), providing research with child's communication, has concluded that the first infancy occurs within communication in 'practical situations'. We might affirm that such kind of communication conform the basis for continuation of cultural development as acquisition of actions with objects, These actions are supported and orientated by adult, who animates and guides the child. It's possible to understand clearly that the adult not only has to interact with the child, but also has to interact

in the zone of proximate development (Zuckerman, 2007). Our results suggest changes of emphasis of play with objects during the period between 13 and 52 months.

Different authors, such as Bates et al. (1979), Ungerer and Sigman (1984) and McCune (1995) have described straight relations between first words and ability for realization of symbolic play. Other researchers (Clift et al., 1988; Doswell et al., 1994; Lewis et al., 2000; McCune, 1995; Ungerer & Sigman, 1984) have identified correlation between symbolic play and speech development, both receptive and expressive.

Our study identified this relation very clearly, but also have shown essential role of actions with objects before appearance of symbolic actions. On the one hand, the children who are able to fulfill actions with animated toys and substitute objects can produce sentences with 5 or 8 words. On the other hand, the children who are able to carry on sequences of day-to-day actions with animated toys with complex substitutions and representations are capable of productions of dialogues with long sentences. In both cases, the previous stage has to be the stage of actions with objects. Chronological age of these children might be the same, but the level of development of actions and speech is different.

Concluding with our discussion, we my note that during manipulation with objects with predominance of purely exploratory goal and with the absence of clear cultural meaning of the actions are limitations for further development of actions with actions and speech. The actions of the child must be based on clear identification of precise cultural meaning of action and object. Absence of this meaning might follow poor experience or poor orientation form the adult. Within clear cultural goal of each action the child might show some kind of retardation of self-speech production together with poor level of development of actions with objects. “This new form of communication with adults is one of the most important condition for intensive development of actions with objects in early infancy” (Elkonin, 1987, p. 152).

Final considerations

The results obtained in the study show existence of straight relation between acquisition of actions with objects and productive language. According to our results, this relation becomes more evident starting from the age of 26 months. Qualitative relation was found between the level of acquisition of actions with objects, level of oral productive speech and parental orientation. Future studies should precise these relations and present more specific details.

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