Relação entre os aspectos sócio cognitivos e perfil funcional da comunicação em um grupo de adolescentes do espectro autístico

Relation between social cognitive aspects and the functional communicative profile in a group of adolescents of the autistic spectrum

Carla Cardoso*
Fernanda Dreux Miranda Fernandes**

*Fonoaudióloga. Doutora em Ciências pela Área de Fisiopatologia Experimental da Faculdade de Medicina da Universidade de São Paulo. Professora do Curso de Fonoaudiologia da Universidade do Estado da Bahia. Endereço para correspondência: R. Cícero Simões, 191 - Apto. 1101 - Condomínio Professor Gilson Silva - Salvador - BA - CEP 41830-475 (cardoso.carla@uol.com.br).

**Fonoaudióloga. Livre-Docente do Curso de Fonoaudiologia da Faculdade de Medicina da Universidade de São Paulo. Coordenadora do Laboratório de Investigação Fonoaudiológica em Distúrbios Psiquiátricos da Infância do Departamento de Fisioterapia, Fonoaudiologia e Terapia Ocupacional da Faculdade de Medicina da Universidade de São Paulo.

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Abstract
Background: issues concerning language development and their relation with social cognitive aspects give direction to the clinical practice when assisting the population with the diagnosis within the autistic spectrum. The deficits or differences in this development can result in different ways of analyzing and counseling this population. Adolescence becomes a question mark in this analysis since, in most cases, researches address only early childhood. The speech pathologist must assess the relationship between language abilities and communicative competence. Language abilities refer to the possibilities to understand and formulate spoken or written symbolic systems, whereas the communicative competence refers to the ability to use language as an effective tool to interact with other people in several social contexts. Purpose: to verify the development of the functional communicative profile and of the social cognitive aspects of adolescents, who attend a specialized institution and who have a psychiatric diagnosis within the autistic spectrum in three different situations of communication during a 12 months period and to study the relation between these variables in the same situations, during the same period of time. Method: subjects of this study were five adolescents with ages between 12 and 17 years. Two recording sets, with a 12 month interval, were obtained for each subject. Each recording set was composed by three 30 minutes videotaped situations of different interactive contexts: Situation I - individual language therapy; Situation II – child in a group with coordinator; Situation III – child in a group without coordinator. Results: differences exist between the subjects in the three studied situations regarding the social cognitive performance and the functional communicative profile. Conclusion: there is a relationship between the development of the social cognitive aspects and the functional communicative profile in the three situations of communication for the studied period.
Key Words: Language; Pragmatics; Autism; Pervasive Developmental Disorders.

Resumo
Tema: questões referentes ao desenvolvimento de linguagem e suas relações com os aspectos sociocognitivos norteiam a prática clinica no atendimento a população com diagnóstico dentro do espectro autístico. As alterações ou diferenças neste desenvolvimento podem resultar em uma maneira diferenciada de analise e orientação para essa população. A adolescência passa a ser um ponto de interrogação dentro desta analise pois, na grande maioria, as pesquisas estão destinadas à primeira infância. O profissional de Fonoaudiologia deve avaliar a relação entre as habilidades de linguagem e a competência comunicativa. As habilidades de linguagem referem-se à competência para compreender e formular os sistemas simbólicos falados ou escritos, enquanto a competência comunicativa refere-se à habilidade em fazer uso da linguagem como um instrumento efetivamente interativo com outras pessoas, em diversos contextos sociais. Objetivo: verificar a evolução do perfil funcional da comunicação e do desempenho sociocognitivo de adolescentes com diagnóstico psiquiátrico incluído no espectro autístico, atendidos em instituição especializada, em três situações comunicativas diversas, durante um período de 12 meses e as relações entre essas variáveis nas mesmas situações, durante o mesmo período de tempo. Método: foram acompanhados cinco adolescentes, com idades entre 12 e 17 anos, em três situações comunicativas. Durante um período de 12 meses foram realizados dois conjuntos de gravações, inicial e final, para cada sujeito. Cada conjunto de gravações foi realizado em três situações diferentes, com duração de 30 minutos cada: Situação I - terapia de linguagem individual; Situação II - criança em grupo com coordenador e Situação III - criança em grupo sem coordenador. Resultados: existem diferenças entre os sujeitos nas três situações comunicativos, quanto ao desempenho sociocognitivo e o perfil funcional da comunicação. Conclusão: existe uma relação entre a evolução do desempenho sociocognitivo e o perfil funcional da comunicação nas três situações comunicativas, no período estudado.
Palavras-Chave: Autismo; Pragmática; Linguagem.

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Introduction

The autistic spectrum disorders involve three developmental areas with some degree of variation: language, cognition and interaction. The division of these three areas is didactic, however it is necessary to stress that during the developmental process, language and cognition are quite often linked, despite their distinctions (Fernandes, 2003a).

Regarding the cognition area, several authors (Fernandes & Ribeiro, 2000; Adamson, 2001; Tager-Flusberg et al., 2002) mentioned that these deficits could be responsible for the language disorders, and that the socialization is the result of the interdependency and, at the same time, the independence of those aspects.

The term autistic spectrum, introduced by Lorna Wing (1988) and then complemented by Bishop (1989) proposes the definition of a unique nosological entity for the autistic children- of low and high functioning, together with the Asperger's Syndrome. The differentiation between these two disorders would be in the intensity of language disorders, cognitive deficits and social interaction.

Bishop (1989) formulated that child's autism, together with the Asperger's Syndrome and the Semantic-Pragmatic Syndrome would be part of the same spectrum, with the language as a common feature. The author defines that the impairments of the Asperger's Syndrome would be connected to the social aspects of language, while in the Semantic-Pragmatic Syndrome they would be connected to the formal aspects of language. The autism would have these two variables altered, with the language difficulties demonstrated either in the non-verbal as in the verbal language, being the greatest difficulties related to communication.

Regardless of the theoretical framework used, language represents a fundamental characteristic within autistic spectrum cases (Fernandes, 2003a). Its disorders vary according to the severity degree of the clinical case, and the researches aiming at a better understanding of the communication functioning in those children are of great importance. Within the autistic spectrum, the language disorders have a delimiting character of the cases, and are very important for the prognosis.

Considering the language disorders in those cases and that every communicative action is inherent to the context in which it occurs, Lopes (2000) had already demonstrated the importance of considering not only the receptor in the interaction, but also the effect of his reaction on the emitter; therefore how the communicative situation can interfere in the interaction process.

Perissinoto et al. (2003) stresses that several elements are involved in the conceptualization of communication and language, and the communicative efficiency is settled in the speaker-listener relation, taking into account the emissions of the emitter and of the receptor and the role exchange between them.

Searching for a relation with the linguistic context, Bernard-Optiz (1982) observed an autistic child and verified that the pragmatic behavior varies according to the situation. Watson (1988) realized that autistic children's mothers tend to adapt to the communicative behavior of their children. In 2000, Amato studied the communicative profile of pairs of autistic children and their mothers and normal children and their mothers, and observed that mothers and their autistic children can be compared to mothers and their four months old babies.

Bara et al. (2001) reported that in spontaneous situations there is a decrease in the use of echolalia and an increase in the communicative functions variations. In 2001, Cardoso studied the relation between the communicative situations and the communicative performance of children diagnosed within the autistic spectrum and verified that these children seemed to differentiate the interlocutors.

According to Scheuer & Limongi (2003), the cognitive development process may not be considered punctually and restrictively. It occurs during the whole life and is a result of ongoing experiences organized throughout the individual's action upon the environment and vice-versa. Fernandes (2003b) adds that during the developmental process, cognition and language complement each other and may be observed during interaction.

Fernandes (2000b) had already mentioned the importance of understanding the symbolization process, that would be a result of a cognitive deficit and responsible for the disorders in the functional use of language. Before that, Libby et al. (1998) observed autistic children during spontaneous play and verified their difficulty in symbolizing.

Researches developed by Adamson (2001) demonstrate that children with autism present a specific difficulty in the cognitive mechanism necessary to represent mental states resulting in difficulties in the social interaction patterns. The same author adds that this difficulty may alter the symbolic plays patterns, the creativity, the originality and the pragmatics that have this skill as a pre-requisite.

Molini and Fernandes (2001) aiming at verifying the socio-cognitive performance in children with

autistic spectrum disorders observed that within this continuum, children presented individual variations in these aspects. According to the authors, the socio-cognitive performance and the functional aspects of language are related.

In 2000, Fernandes reported that the cognitive deficits involve language aspects and central processes of decoding. In a study aiming at detecting the efficacy of controlled situations for obtaining socio-cognitive scores, Fernandes and Ribeiro (2000) observed a relation between the symbolization and the language comprehension skill. In this study, they verified that for this population the use of specific evaluation procedures seems to be unnecessary once the scores obtained are not different from those obtained in spontaneous situations.

Molini (2001) studying the socio-cognitive aspects of this population acknowledges a specific difficulty in the use of these skills, corroborating the literature that stresses that the cognitive equipment may be preserved and the children's difficulty would lay on its use. This remits to the language, which the deficit would also be in its use, showing a correlation between the language development and cognition.

Studying the communication means, some authors (Tager-Flusberg et al., 2002) raised the hypothesis that the stereotyped and rigid use of language serves as an interaction regulator, by the limited use of the verbal means and gestures.

The systematic evaluation of the communicative competence allows the professionals to better understand how and when a child uses his/her linguistic skills.

The evaluation techniques must have the differential diagnosis and questions about the improvement of communicative functions as specific goals. The establishment of evaluation criteria for the standardization of data is very important for the effective proposal of therapeutic techniques (Fernandes, 2003a).

The Speech-language professional must evaluate the relationship between the language skill and the communicative competence. The language skill refers to the child's competence to understand and formulate the spoken or written symbolic systems, while the communicative competence refers to the skill of using the language as an interactive instrument with other social contexts. This competence involves the communicative intention independently of the communication means used (Bara et al., 2001).

In a previous study Wetherby and Prutting (1984) suggest that this kind of functions may be classified in two types: the interpersonal functions, where there is a communicative intention, the participation of the other during the communicative act; and the non-interpersonal functions that would be responsible for the regulation of actions and non-focused acts.

In the same study, the authors report the relation between the behavioral, interactional and communicative disorders and the socio-cognitive skills, once there is an acquisition delay of these skills in autistic children.

Wetherby and Prutting (op. cit) suggested, then, a protocol for the socio-cognitive skills evaluation, taking into account the acquisition and competence levels for each one of them.

In 2000, Fernandes proposed a model of communicative functions evaluation using a series of twenty categories. The author considers as language each and every form of sound or gesture carrying a language function, understood by the interlocutor. According to this model, the communicative acts starts when the interaction adult-child, child-adult or child-object is initiated, and ends when the child's attention focus changes or when there is a turn-taking. The author also reports the communicative ways that may be used, that are divided in: verbal (involving at least 75% of the Language phonemes), vocal (all the other emissions) and gestures (involving body and face movements).

Based on the model proposed by Wetherby and Prutting (1984), Molini (2001) was able to identify the presence of a communicative intention which could modify the stereotype that autistic children wouldn't be able to communicate; it can occur although in an alternative way. The same study showed the efficiency of this investigation model to detect the real socio-cognitive skills of each autistic child. In that study, the author detected that the use of the mediator object followed by vocal imitation are the most absent aspects in this population, during the observed period.

The same author reports that in a test situation those aspects tend to appear totally, however comparing controlled and spontaneous situations, the observation of the socio-cognitive performance of this population is more effective in the second situation.

Aim: to verify the communicative functional profile development and the socio-cognitive performance of adolescents with a psychiatric

diagnosis included in the autistic spectrum, treated in a specialized institution, in three different communicative situations: individual speech-language therapy, group activity with and without coordination during a 12 months period; and to verify the relations between the communicative functional profile and the socio-cognitive performance in the same situations during the same period.

Method

Data collecting and analysis started after the pertinent ethical processes: Ethics Committee approval (CAPPesq Hospital das Clínicas - Medical School of the University of São Paulo – HC FMUSP – number 141/02), and signing of the Informed Consent Term by the adolescents' care-takers.

Subjects: five adolescents ranging in age from twelve years and four months to sixteen years and three months were selected according to the pre-established criteria:

. diagnosis by a psychiatrist, within the autistic spectrum based on the criteria established by Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) or International Classification of Diseases (ICD-10);
. no previous speech-language therapy.

Material: games and toys, a video recorder and tapes, and recording protocols were used.

Procedures: the communicative situations were established and the communicative contexts varied according to the individual or group activities proposed by the adult or chosen by the subjects.

During the twelve months period two recording sets were performed, initial and final, for each subject. Each recording set was carried out in three different situations, lasting 30 minutes each.

Situation I: child during speech-language therapy (30 minutes).
Situation II: child in a group with a coordinator (30 minutes). The group coordinator is not the speech-language therapist.
Situation III: child in a group without the coordinator (30 minutes).

The recording groups were not necessarily the same ones of the classrooms and the participants did not have to be in the same groups during the data collecting process. During this process, the participants were attending weekly individual speech-language therapy.

The institution where the study was conducted had an educational nature and the participants developed pedagogic and play activities, staying there for at least one period, five days a week.

The recordings were analyzed concerning:

. each subject's performance in the thee situations during the 12 months period;
. the comparison between the socio-cognitive aspects and the functional communicative profile during the same period.

The criteria proposed by Fernandes (2004) were used for the analysis of the functional communicative profile; this model uses a series of twenty categories (Annex).

Object Request (PO): acts or utterances used to request a desired concrete object.
Action Request (PA): acts or utterances used to ask the other to perform an action. Includes asking for help and other actions involving another person, or another person and an object.
Social Routine Request (PS): acts or utterances used to ask the other to start or keep a social interaction game. It is a specific kind of action request involving an interaction.
Consent Request (PC): acts or utterances used to ask for the other's consent to perform an action. Involves an executed action
Information Request (PI): acts or utterances used to request information about an object or an event. Includes the "wh" questions and other emissions with an interrogation intonation.
Protest (PR): acts or utterances used to stop an undesired action. Includes resistance opposition to the other's action and rejection of the offered object.
Recognition of other (RO): acts or utterances used to get the other's attention and to indicate recognition of his presence. Includes greetings, callings, politeness and theme markers.
Showing off (E): acts used to attract attention to self. The initial performance may be accidental and the child repeats it when he/she realizes that it attracts the other's attention.
Commenting (C): acts or utterances used to direct the other's attention to an abject or an event. Includes pointing, showing, describing, informing

and naming interactively.
Self-regulatory (AR): utterances used to verbally control his own action. The emissions immediately precede or co-occur with the motor behavior.
Labeling (N): acts or utterances used to focus his own attention in one object or event through the identification of the referent.
Performative (PE): acts or utterances used in familiar action schemes applied to objects. Includes sound effects and ritualized vocalizations produced in synchrony with the child's motor behavior.
Expressive (EX): acts or utterances that express an emotional reaction to an event or situation. Includes surprise, pleasure, frustration and dissatisfaction expressions and occurs after a significant event.
Reactive (RE): utterances produced while a person examines or interacts with an object or part of the body. There is no evidence of communicative intention, however the subject is focusing the attention in one object/ part of the body and seems to react to this. It may serve a training or self-stimulation functions.
Non-focused (NF): acts or utternaces produced although the subject is not focusing his attention in any object or person. There is no communicative evidence. It may serve a training or self-stimulation functions.
Game (J): acts involving organized activity, can be self-centered, includes primary circular reactions. It may serve a training or self-stimulation functions.
Exploratory (XP): acts involving investigation activities of a particular object or part of the body or the other's clothes.
Narrative (N): utterances produced to report real or imaginary facts, there might or might not be the listener's attention.
Protest expression (EP): crying, tantrum or other manifestation of protest not necessarily directed to an object, an event or a person.
Joint play (JC): organized activity shared between adult and child.

The socio-cognitive aspects were analyzed according to the criteria proposed by Molini (2001).

Gestural Communicative Intent (ICG):
1.The child examines or manipulates objects and does not report to the adult.
2.The child expresses emotional reactions to objects/ events, including clapping, smiling, making a face and hitting.
3.The child emits signs that are contiguous to the goal, to the child's own body or to the adult's body; the child reports to the adult.
4.The child repeats the same gesture until the purpose is achieved; the child reports to the adult.
5.The child modifies the gesture shape until the purpose is achieved, that is, the child repeats the gesture with an extra element; the child reports to the adult.
6.The child emits ritualized gestures that are not contiguous to the goal, to the child's body or to the adult's body, that is, the same gesture must be used in at least two occasions in the same communicative context to be qualified as a ritual; the child reports to the adult.

Vocal Communicative Intent (ICV):
1.The child vocalizes while he/she manipulates or examines an object or while ignores an object and does not report to the adult.
2.The child expresses emotional reactions to objects/ events, including screams, laughs, crying.
3.The child emits vocal signs referring to an object or to the adult; the same sing must be used in at least two different communicative contexts.
4.The child repeats the same vocal sign until the purpose is achieved; the child reports to the adult.
5.The child modifies the vocal sign until the purpose is achieved, that is, the child repeats the gesture with an extra element; the child reports to the adult.
6.The child emits ritualized sounds, that is, the same sign must be used in at least two occasions in the same communicative context to be qualified as a ritual; the child reports to the adult.

Tool Use (UOM):
1.The child uses a familiar instrument contiguous to the object as a way to obtain it.
2.The child uses a familiar instrument not contiguous to the object as a way to obtain it.
3.The child uses a unfamiliar instrument contiguous to the object as a way to obtain it.
4.The child uses a unfamiliar instrument not contiguous to the object as a way to obtain it.

Gesture Imitation (IG):
1.The child imitates familiar action schemes.
2.The child imitates complex gestures composed by familiar action schemes.
3.The child imitates unfamiliar visible gestures.
4.The child imitates unfamiliar invisible gestures and reproduces the adult's model in the first attempt when the model is no longer present.

Vocal Imitation (IV):
1.The child imitates familiar vocal sounds.
2.The child imitates familiar words.
3.The child imitates unfamiliar sound patterns.
4.The child imitates unfamiliar words and reproduces the adult's model in the first attempt when the model is no longer present.

Combinatory Play (JCo):
1.The child uses simple motor schemes in objects.
2.The child manipulates physical features of the objects.
3.The child relates two objects.
4.The child relates three or more objects without sequential order.
5.The child combines at least three objects with sequential order.
6.The child combines more than three objects with sequential order.

Symbolic Play (JS):
1.The child uses simple motor schemes in objects.
2.The child manipulates physical features of the objects.
3.The child uses conventionally the realistic objects; he/she may or may not use invisible substances, applies the schemes only to him/herself.
4.The child uses miniatures conventionally; he/she may or may not use invisible substances, applies the schemes only to him/herself.
5.The child uses objects conventionally with invisible substances; applies the schemes to him/herself and to others.
6.The child uses one object by the other; applies the schemes to him/herself and to others.

The data collected from each subject in each recording set were integrated in the protocols proposed by Molini (2001); Fernandes (2004).

Results

Next we will present the data according to the communicative situations observed.

Concerning the communicative situations, it is possible to observe that the subjects presented a similar communicative behavior among them as for the increasing number of communicative acts, differing only in relation to the average of occurrence, due to the factor of dispute for the communicative space.

In situation I (Table 1) it can be observed an increase in the number of communicative functions in subjects two, three, four and five, and only one subject presented a decrease of this number. Concerning the socio-cognitive aspects, it can be verified that all subjects obtained scores in all observed aspects, since the beginning or only in the end of the process.

TABLE 1: Functional communicative profile and socio-cognitive aspects in the individual situation, in the initial and final data collecting.

Subjects / Variables		01	02	03	04	05
communicative acts per minute	inicial	4,9	2,4	3,1	1,5	2,6
	final	3,2	2,9	3,2	2,8	3,8
percentage of interpersonal functions	inicial	79,8	58,1	75,8	68,9	89,7
	final	84,3	81,6	90,6	77,4	92,2
number of communicative functions	inicial	15	7	10	10	12
	final	14	12	14	11	13
percentage of occurrence of the verbal communicative mean	inicial	94	94	83	53	97
	final	77	68	71	73	85
percentage of occurrence of the vocal communicative mean	inicial	6				1
	final	14	4	8	6	9
percentage of occurrence of the gestural communicative mean	inicial	54	41	50	80	52
	final	63	58	56	62	61
gestural communicative intent (ICG)	inicial	1	2	1		3
	final		5	6	5	6
vocal communicative intent (ICV)	inicial	1	4	4	1	2
	final	6	6	6	6	6
gesture imitation (IG)	inicial	4	1	3	2	0
	final	6	3	3	6	3
vocal imitation (IV)	inicial	4	2	2	0	2
	final	4	3	4	3	3
tool use (OM)	inicial	0	0	0	0	0
	final	1	3	1	2	3
combinatory play (JC)	inicial	3	4	3	4	3
	final	6	6	6	6	6
symbolic play (JS)	inicial	2	2	2	2	2
	final	6	6	6	6	6

In this same situation, it can also be seen that all subjects presented the highest score for the socio-cognitive aspects of Symbolic Play and Combinatory Play.

In situation II (Table 2) it can be observed that the socio-cognitive aspect of Tool Use did not appear in any of the subjects' recordings, while the other observed aspects presented an increasing score. The socio-cognitive aspect of Symbolic Play presented maximum score in this situation, coordinating with the significant increase of interpersonal functions.

Situation III (Table 3) shows a different behavior concerning the socio-cognitive aspects, with a total absence of some of the aspects observed during the 12 months period.

Initially, the percentage of interpersonal communicative functions is lower in situation III (Table 3), however in the end of the period this position is reversed with some participants obtaining maximum score (100%). It is also possible to observe in situation III that the diversity of communicative functions used decreases while in the other situations (I and II) this fact does not occur the same way.

TABLE 2: Functional communicative profile and socio-cognitive aspects in the group situation with coordination, in the initial and final data collecting.

Subjects / Variables		01	02	03	04	05
communicative acts per minute	Inicial	0,66	0,79	1,76	0,96	2,46
	Final	1,4	1,2	1,6	1,2	3,6
percentage of interpersonal functions	Inicial	90	63,6	62,3	58,6	78,4
	Final	90,4	92,1	100	86,2	93,5
number of communicative functions	Inicial	7	7	13	8	12
	Final	10	10	8	8	11
percentage of occurrence of the verbal communicative mean	Inicial	70	45,5	32,3	75,8	77
	Final	83,4	65,8	81,2	63,9	78,7
percentage of occurrence of the vocal communicative mean	Inicial	0	13,8	3,8	3,4	0
	Final	0	10,2	4,2	8,3	7,4
percentage of occurrence of the gestural communicative mean	Inicial	6,5	54,5	28,3	51,7	56,7
	Final	66,7	65,8	29,2	41,7	50
gestural communicative intent(ICG)	Inicial	1	1	1	1	3
	Final	6	6	6	6	6
vocal communicative Intent (ICV)	Inicial	2	2	2	2	2
	Final	5	5	4	4	3
gesture imitation (IG)	Inicial	2	3	0	3	2
	Final	4	4	3	4	3
vocal imitation (IV)	Inicial	3	3	1	0	3
	Final	4	4	3	3	4
tool use (OM)	Inicial	0	0	0	0	0
	Final	0	0	0	0	0
combinatory play (JCo)	Inicial	2	1	1	1	2
	Final	6	3	6	5	6
symbolic play (JS)	Inicial	2	4	2	3	2
	Final	6	6	6	6	6

TABLE 3: Functional communicative profile and socio-cognitive aspects in the group situation without coordination, in the initial and final data collecting.

Subjects / Variables		01	02	03	04	05
communicative acts per minute	Inicial	0,66	1,34	0,66	0,73	1,73
	Final	1,7	1,36	1,83	1,3	2,3
percentage of interpersonal functions	Inicial	70	32,5	52,6	44,3	80
	Final	90,2	95,1	100	87,1	100
number of communicative functions	Inicial	9	9	8	9	8
	Final	8	8	6	6	8
percentage of occurrence of the verbal communicative mean	Inicial	80	35	95	90,9	88,4
	Final	66,7	51,2	92,7	84,6	76,9
percentage of occurrence of the vocal communicative mean	Inicial	5	4	0	0	0
	Final	0	21,9	3,63	5,2	14,4
percentage of occurrence of the gestural communicative mean	Inicial	65	64,2	25	45,5	25
	Final	58,9	58,5	58,1	71,8	73,9
gestural communicative intent (ICG)	Inicial	2	2	2	2	2
	Final	5	6	6	6	6
vocal communicative intent (ICV)	Inicial	1	2	1	2	2
	Final	6	5	6	4	6
gesture imitation (IG)	Inicial	0	0	0	0	0
	Final	0	0	0	0	0
vocal imitation (IV)	Inicial	0	0	0	0	0
	Final	0	0	0	0	0
tool use (OM)	Inicial	0	0	0	0	0
	Final	0	0	0	0	0
combinatory play (JCo)	Inicial	3	3	2	2	3
	Final	5	5	6	5	6
symbolic play (JS)	Inicial	4	2	3	4	2
	Final	6	5	6	6	5

Discussion

The results found demonstrate that the performance throughout the variables studied during the twelve months period and the individual characteristics observed in the subjects diagnosed within the autistic spectrum presented variations in all analyzed items.

When the functional communicative profile is investigated, the variable number of communicative acts may be once more confirmed as an interest focus in these subjects' development (Cardoso, 2001; Fernandes, 2003a).

The decrease of the variability of communicative functions verified in situation III may show the communicative effectiveness, since in the other situations the same participants could experiment the functions, but in the situation with a similar one it is appropriate to use only those functions that obtain a better effectiveness. These findings corroborate Cardoso's (2001) ones, studying the communicative means used in different communicative situations.

Comparing the functional communicative profile data and the socio-cognitive performance it is observed an existing relation between the development of both, already pointed out in the literature, showing a strict correlation between the language and the cognition development (Fernandes & Ribeiro, 2000; Adamson, 2001).

The impossibility of verifying some items, such as in situation III, confirms Molini's (2001) reservation concerning the absence of some aspects, however it is not possible to conclude the absence since those aspects were verified in the other situations.

Conclusion

It can be observed that these adolescents, with a diagnosis within the autistic spectrum, seem to comprehend the pertinent differences of each communicative situation and are able to adapt to them, changing the functional communicative profile.

In all situations there are changes either in the functional communicative profile as in the socio-cognitive aspects, being possible to realize a relationship between the participants' performance in these two aspects. It is important to stress that the changes in the performance may be considered interconnected, however nonlinear.

Annex:

Individual Performance Summary

Perfil Funcional da Comunicação (Fernandes, 2004)												
Nome:					Idade:				Número:			
Função	Meio	N	%		Função	Meio	N	%	Função	Meio	N	%
PO	VE VO G				PS	VE VO G			PI	VE VO G		
RO	VE VO G				C	VE VO G			N	VE VO G		
EX	VE VO G				NF	VE VO G			XP	VE VO G		
EP	VE VO G				PA	VE VO G			PC	VE VO G		
PR	VE VO G				E	VE VO G			AR	VE VO G		
PE	VE VO G				JC	VE VO G			J	VE VO G		
NA	VE VO G				RE	VE VO G			Direcionamento A C	n- n-	% - % -	

Ficha-Resumo de Observação dos Aspectos Sócio-Cognitivos (Molini,2001)		
Nome:	Idade:	Terapeuta:
Número	Diagnóstico:	Data:
Socio-Cognitive Aspects		Performance Level
gestural communicative intent:		1 - 2 - 3 - 4 - 5 - 6
vocal communicative intent:		1 - 2 - 3 - 4 - 5 - 6
tool use:		1 - 2 - 3 - 4
gestural imitation:		1 - 2 - 3 - 4
vocal imitation:		1 - 2 - 3 - 4
combinatory play:		1 - 2 - 3 - 4 - 5 - 6
symbolic play:		1 - 2 - 3 - 4 - 5 - 6

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