The Spanish Journal of Psychology
2009, Vol. 12, No. 2, 686-695

Copyright 2009 by The Spanish Journal of Psychology
ISSN 1138-7416

Speech and Language Pathology and Autistic Spectrum

Carla Cardoso and Melaine Luz Montenegro
Centro Universitário Jorge Amado (Brazil)

The aim of this study was to identify variations from different language therapy processes times in two groups of children with autistic spectrum disorders. 8 subjects, from 3 to 17 years old, participated of this study and they were divided in two groups: Group 1: 4 subjects, in language therapy for 12 months, with therapist change after 6 months; Group 2: 4 subjects, also in language therapy for 12 months, but without therapist change in this period. Data was collected from two videotapes recordings: initial and final and all the recordings had fifteen minutes of duration. The analysis was done according to the criteria proposed by Fernandes (2004a), for functional evaluation of language and the statistical analysis were done with the Wilcoxon signed ranks test and the Mann-Whitney test, with 5% of significance. The results showed no difference between the two groups. This outcome may be related to the small size of the groups or to the duration of the study. Nevertheless, a better functional profile of communication was noted on group 2, witch had no therapist change. This outcome was represented by the improving of the communicational acts and the use of the communicative space, it was also noted an increasing of the utilization of the verbal mean and decreasing of the vocal mean, besides a greater utilization of the more interactive functions.
Keywords: autistic spectrum, pragmatics, functional use of language, speech therapy.

El objetivo de este estudio era identificar las variaciones en los diversos tiempos de los procesos de logopedia en dos grupos de niños con trastornos del espectro autista. 8 sujetos, entre 3 y 17 años, participaron en este estudio, y se dividieron en dos grupos: Grupo 1: 4 sujetos, en terapia de logopedia durante 12 meses, con cambio de terapeuta a los 6 meses; Grupo 2: 4 sujetos, también en terapia de logopedia durante 12 meses, pero sin cambiar de terapeuta durante este período. Se recogieron los datos de dos grabaciones de vídeo: grabación inicial y final y todas las grabaciones duraban 15 minutos. Los análisis se llevaron a cabo según los criterios propuestos por Fernandes (2004a), para la evaluación funcional del lenguaje y los análisis estadísticos se hicieron con la prueba de rangos jerárquicos de Wilcoxon y la prueba Mann-Whitney, con un 5% de significación. Los resultados no mostraron ninguna diferencia entre los dos grupos. Este resultado puede relacionarse con el pequeño tamaño de los grupos o con la duración del estudio. No obstante, se observó un perfil funcional de comunicación superior en el grupo 2, que no cambió de terapeuta. Este resultado se plasmó en la mejora de los actos de comunicación y el uso del espacio comunicativo, y también se observó un incremento en el uso de la media verbal y un decremento en la media vocal, además de una mayor utilización de las funciones más interactivas.
Palabras clave: espectro autista, pragmática, uso funcional del lenguaje, logopedia.

Correspondence concerning this article should be addressed to Carla Cardoso. Rua Cícero Simões, 191 apto 1101 – Condomínio Prof. Gilson Silva. Pituba. Salvador. Cep: 41830-475 (Brazil). Phone: +55-7133538300 / +55-7181123540. E-mail: cardoso_c @uol.com.br

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

During the last decades the autistic spectrum disorders (ASD) were studied from several perspectives. Their causes were researched and some studies tried to describe the "autistic profile" that would include de variations on areas as cognition, language, interaction and behavior.

Language studies aimed to propose comprehensive, flexible and effective assessment and therapeutic procedures. It is important to mention the work by Fernandes (1996a, 2003a, 2003c and 2004a) and Fernandes, Molini & Barrichelo (1997) with several therapeutic models in search of clinical evolution of individuals with autistic spectrum disorders. Aiming to lessen the communicative disorders and the lack of effective use of language, Fernandes (1996a) proposes the use of pragmatic theories since they focus on the functional aspects of communication and on the other domains of language development. This perspective has been shown to provide the best approach to the disorders presented by children with psychiatric disorders because it includes each subject's peculiarities. This allows a more inclusive speech and language intervention by the specific characterization of the functional communicative profile of each subject (Fernandes, Molini & Barrichelo, 1997; Fernandes 2004b and Fernandes 2005).

Another aspect that must be considered when determining the functional communicative profile is the importance of the context where communication takes place since it is the context that provides elements to precisely understand communication (Mey, 2001). This way it can be supposed that the changes that occur on the therapeutic setting should be considered as a part of the context where the therapy occurs. This way the time that a child with ASD spends with the same therapist may influence on the therapeutic results leading to the supposition that the longer the child stays with the same therapist, the better the results. This supposition can also rely in the difficulty in establishing personal relationships and in the tendency to monotony that are characteristics of ASD.

This way, it can be supposed that if there are two groups attending language therapy for a period of 12 months one of them with a change of therapist after 6 months and the other with the same therapist during the 12 months, the last group will present better therapeutic results because the context is known and the patient-therapist dyad is kept for a longer time. Accordingly, the purposes of this research were: a) determine the functional communicative profile of two groups of subjects with ASD; and b) compare the functional communicative profile of the group that had a therapist change with the group that didn't have it.

Theoretical Framework

Autistic Spectrum Disorder (ASD) is the term used nowadays to identify the different manifestations of infantile autism, first described by Kanner (1944). This term aims to include several pathologies in the spectrum, according to the severity of the disorders on meaningful verbal communication and interest in social relations (Bishop, 1989).

The features presented by children with ASD include aspects of the behavioral, social interaction and communication domains (American Psychiatric Association, 2002). Before that, the analysis of several concepts about the autistic spectrum lead Cardoso (2001) to state that this condition may be considered an impairment to establish personal relation associated with behavioral and linguistic disorders of a multifactorial etiology.

The lack of abilities to naturally relate with other people is also one of the main features that had already been described by Kanner (1944). However several other authors consider language impairment as the most meaningful disorder of the ASD subjects (Fernandes, 1996b, Fernandes & Barros, 2001, Barros 2002, Fernandes, 2004a). Due to the importance of language, some authors state that since the final of the last century the studies about the autistic spectrum started to focus on its functional use, relating to the pragmatic theories and also taking onto account the social cognitive aspects related to its development (Fernandes et al, 1997, Fernandes & Barros, 2001, Molini & Fernandes, 2001).

The pragmatic theories propose the use of language as communication not exclusively limited to the use of words and syntactically correct discourses. These theories propose to interpret the functions of language and the abilities that allow the individuals to choose the most adequate forms to communicate on the various contexts they meet (Mey, 2001).

In the case of the ASD the language therapy based on the functional aspects of language aims to improve the communicative profile of these individuals through the increase on the number of communicative acts and on the frequency of use of more interpersonal communicative functions (Fernandes, 2004b).

Communicative acts are characterized by the onset of an adult-child, child-adult or child-object interaction and end when the attention focus changes or when there is a turn-change between the individuals (Fernandes, 2004a). These acts can be expressed by gestures, vocalization (less than 75% of the language phonemes) and verbalization (more than 75% of the language phonemes), in a single or combined form. There are 20 communicative functions (Appendix 1) and they can be differentiated as more interactive (interpersonal) or less interactive (non-interpersonal). The more interactive functions show the communicative initiative of the producer of the act (Fernandes, 2004a).

Several studies point out to the positive aspects of the language therapy based on the functional use of language to individuals with ASD. These authors have found, among other results, increase on the number of communicative acts, greater occupation of the communicative space and larger number of interpersonal communicative functions expressed (Cardoso, 2001; Fernandes, 2003a, 2003b, 2005 and Fernandes & Teles, 2005).

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

The determination of the functional communicative profile is done by the analysis of filmed samples of language therapy sessions according to the parameters proposed by Fernandes (2004a). The analysis of the results allows the determination of the individual's communicative abilities. The aim is not to compare the results with pre-determined normality parameters but to compare data about each subject through a determined time period, verifying the evolution (Fernandes, 2004a).

Regarding the time of language therapy, Fernandes (2003a) observed an increase on the number of more interactive communicative functions in subjects that received 18 months of therapy. She also states that therapeutic results with children with ASD should be followed through time so that the language therapy can address the individual's necessities based on objective data about each individual's abilities and inabilities (Fernandes, 2003b).

However it is interesting to point out that in 1996 Fernandes stated that, due to the ASD individuals' specific characteristics, the determination of control groups with subjects with different conditions would be artificial once the control group individuals would not have a development similar to that of the ASD individuals, impeding comparisons. This way the comparisons of the individual results are more significant than the comparison with individuals with other conditions.

Method

Participants

Participated in this research eight subjects with diagnosis within ASD determined by a psychiatrist according to the criteria proposed by the DSM-IV (American Psychiatric Association - APA, 2002) or by the ICD-10 (World Health Organization - WHO, 2007). These subjects were divided in two groups:

- Group 1: 4 subjects, with ages between 3 and 17years, attending language therapy for a total period of 12 months. The therapists were undergraduate students of a supervised practice of the Speech and Language and Audiology course of the Bahia's State University Bahia (Brazil). This supervised practice lasts six months and there is a change of therapist after this period.
- Group 2: 4 subjects with ages between 3 and 17 years attending language therapy for a total period of 12 months. The therapists were postgraduate students of an extension project of the Speech and Language and Audiology course of the Bahia's State University Bahia (Brazil). This project had two years of duration and therefore the therapists were the same during the 12 months of the study.

All subjects attended to a special institution for children with ASD and other behavioral disorders. This institution provides pre-school activities, physical education, pet center, agricultural activities, occupational therapy and language therapy. The multidisciplinary team includes speech and language therapist, psychologist, psychiatrist, occupational therapist, nurse, social worker and specialized teachers. Their work allows a complete approach to the needs of each child and their families. The supervised practice and the extension project took place in this institution and its board was informed and authorized the research.

Material

The research used the Functional Communication Profile Protocol (Fernandes, 2004a) (see appendix II), video recorder, VHS videotapes, toys and games.

Procedures

Each participant of the two groups was recorded at the therapeutic setting in two moments: at very begging of the process and twelve months later. The recording comprehended spontaneous communicative situations and had 15 minutes of length. Data was transferred to electronic charts and analyzed latter.

Analysis of results

Data were analyzed according to the criteria proposed by Fernandes (2004a) to the determination of the Functional Communicative Profile considering the following aspects: number of communicative acts per minute, occupation of the communicative space, communicative means and more or less interactive communicative functions. The results of each group were analyzed separately and then compared to each other.

Statistical analysis

After the data gathering, statistical analysis used the Wilcoxon test and the Mann-Whitney test. The first is used to compare paired (dependent) data and doesn't demand a normal distribution of data. This test is used to verify if there are significant differences in two sets of data. In this study the Wilcoxon test was used to compare de performance on the Functional Communicative Profile of the two groups - distinguished by therapist changes – on the initial and final recordings. The Mann-Whitney non-parametric test was used with the purpose of verifying if there were differences between the two groups (with and without therapist change) at the beginning and at the end of the research. The significance level was fixed at 5% ($\alpha = .05$).

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

Results and Discussion

During the research the two groups presented the following functional communicative profiles, that are presented comparatively being group 1 the one with therapist change and group 2 the one without therapist change.

Table 1 presents the values referring to average, mean and standard deviation of the number of communicative acts per minute in the initial and final recordings of both groups. It can be observed that in group 1 there is a small decrease in the number of communicative acts per minute while in group 2 there is a slight increase of these numbers.

The decrease of the number of communicative acts per minute after 12 months although not expected, is also found in the studies by Fernandes (2003a) in a group of patients receiving individual language therapy for the same period. On the other hand, the increase of the number of communicative acts per minute, found on group 2 shows that there was evolution in this group especially when compared to group 1. This increase was also reported by Fernandes & Barros (2001) and by Fernandes (2005).

Despite these findings the statistical analysis didn't find significant differences between the groups. On the Wilcoxon test it was possible to observe that there was no difference between the initial and final performance in none of the groups and in non of the studied aspects ($p < .05$ in all the comparisons). Also there were no significant differences between the groups on the Mann-Whitney test in none of the studied aspects in the beginning or the end of the research ($p < .05$ in all the tests).

About this lack of statistical significance Fernandes & Barros (2001) and Fernandes (2005) suggest that it is due to the very unique characteristics of each subject that do not allow the determination of a mean profile of this population. The statistical analyses results of all the observed aspects in groups 1 and 2 are presented in Tables 2 and 3. The statistical results comparing the groups' performances are presented in Tables 4, 5 and 6.

The occupation of the communicative space refers to the proportion of the communication that is occupied by the child in relation to the total communication, that is, the part of the communication that is started by the child. Figure 1 shows that group 1, where there was the therapist change,

Table 1
Mean, average and standard deviation of communicative acts per minute of groups 1 and 2, in the initial and final recordings

Communicative Acts per Minute	Groups	Statistics	
Initial Recording	1	Mean	2,09
		Average	1,88
		Standard deviation	1,21
	2	Mean	2,98
		Average	2,99
		Standard deviation	2,11
Final Recording	1	Mean	2,08
		Average	2,00
		Standard deviation	1,03
	2	Mean	3,07
		Average	2,57
		Standard deviation	1,93

Table 2
Wilcoxon's signed posts test of group 1 in the initial and final recordings

	Communicative Acts per Minute (Final Recording) – Communicative Acts per Minute (Initial Recording	Communicative Space (Final Recording) – Communicative Space (Initial Recording)	Verbal Mean (Final Recording) – Verbal Mean (Initial Recording)	Vocal Mean (Final Recording) – Vocal Mean (Initial Recording)	Gesture Mean (Final Recording) – Gesture Mean (Initial Recording)	More Interactive Functions (Final Recording) – More Interactive Functions (Initial Recording)	Less Interactive Functions (Final Recording) – Less Interactive Functions (Initial Recording)
Z	–0,184	–1,461	–1,000	–1,069	–1,069	–1,826	–1,826
p value	.85	.14	.32	.28	.28	.07	.07

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

Table 3
Wilcoxon's signed posts test of group 2 in the initial and final recordings

	Communicative Acts per Minute (Final Recording) – Communicative Acts per Minute (Initial Recording	Communicative Space (Final Recording) – Communicative Space (Initial Recording)	Verbal Mean (Final Recording) – Verbal Mean (Initial Recording)	Vocal Mean (Final Recording) – Vocal Mean (Initial Recording)	Gesture Mean (Final Recording) – Gesture Mean (Initial Recording)	More Interactive Functions (Final Recording) – More Interactive Functions (Initial Recording)	Less Interactive Functions (Final Recording) – Less Interactive Functions (Initial Recording)
Z	–0,365	–1,095	–1,342	–0,730	–0,730	–0,184	–0,816
p value	.71	.27	.18	.46	.46	.85	.41

Table 4
Wilcoxon's signed posts test of group 2 in the initial and final recordings

	Communicative Acts per Minute (Initial Recording	Communicative Acts per Minute (Final Recording)	Communicative Space (Initial Recording)	Communicative Space (Final Recording)	Vocal Mean (Initial Recording)	Verbal Mean (Final Recording)
Mann-Whitney *U*	6,000	6,000	8,000	4,000	4,000	5,000
p value	.56	.56	1	.25	.13	.32

Table 5
Mann-Whitney test of groups 1 and 2 comparing the use of vocal and gesture mean and eh more interactive functions, in the initial and final recordings

	Vocal Mean (Initial Recording)	Vocal Mean (Final Recording)	Gesture Mean (Initial Recording	Gesture Mean (Final Recording)	More Interactive Functions (Initial Recording)	More Interactive Functions (Final Recording)
Mann-Whitney *U*	3,500	7,000	8,000	3,000	2,000	7,000
p value	.19	.77	1	.15	.08	.77

Table 6
Mann-Whitney test of groups 1 and 2 comparing the use less interactive functions, in the initial and final recordings

	Less Interactive Functions (Initial Recording)	Less Interactive Functions (Final Recording)
Mann-Whitney *U*	5,500	4,000
p value	.47	.25

had a decrease of that number while in group 2, where there was no change, had an increase in the occupation of the communicative space. In Table 7 is possible to observe data about mean, average and standard deviation of occupation of the communicative space of both groups in the initial and final recordings. The statistical analysis of the occupation of the communicative space again points out to the absence of significant differences in both groups although it is possible to observe a small increase in the occupation of the communicative space by subjects of group 2.

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

Table 7
Mean, average and standard deviation of the communicative space use of groups 1 and 2, in the initial and final recordings

Communicative Space	Groups	Statistics	
Initial Recording	1	Mean	34,91
		Average	33,86
		Standard deviation	8,52
	2	Mean	33,59
		Average	35,01
		Standard deviation	9,83
Final Recording	1	Mean	31,00
		Average	31,53
		Standard deviation	9,06
	2	Mean	39,31
		Average	38,87
		Standard deviation	2,42

According to the use of verbal, vocal and gestural communicative means it was possible to observe an increase in the use of the verbal mean and a decrease in the use of the vocal mean by subjects of both groups. About the gestural mean it was possible to observe an increase in its use by subjects of group 1 and a decrease in group 2. These results are presented in the Figure 2.

The decrease in the use of vocal mean by the subjects of group 2, from the initial to the final recording, although do not present statistical significance, agree with the study by Fernandes (2003a) that suggests we may expect a decrease in the use of this mean and not an increase as occurred in the group 1 of this study. Nevertheless the decrease of the use of the gestural mean do not agree with the findings of other studies that state that the gestural mean is used in about 50% of the communication of autistic children (Fernandes, Molini & Barrichelo, 1997, Fernandes, 2003c).

The results about more or less interactive communicative functions are presented in Figure 3. It can be observed an important increase in the number of interpersonal (more

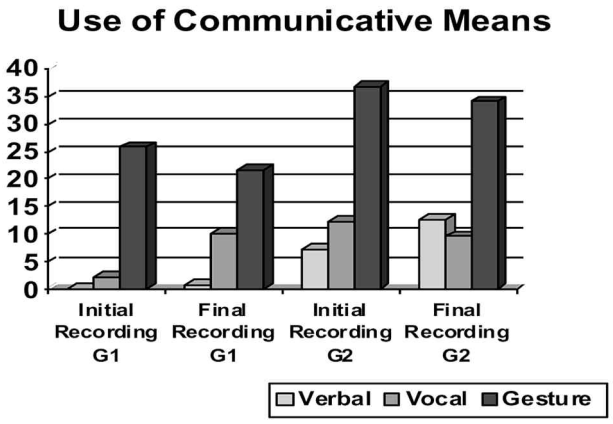


Figure 2. Communicative space occupation of groups 1 and 2, in the initial and final recordings.

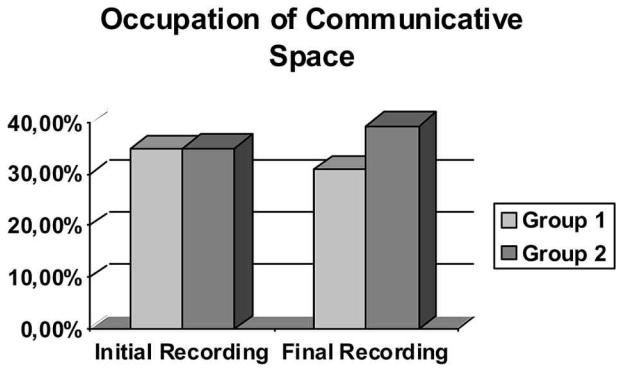


Figure 1. Communicative space occupation of groups 1 and 2, in the initial and final recordings.

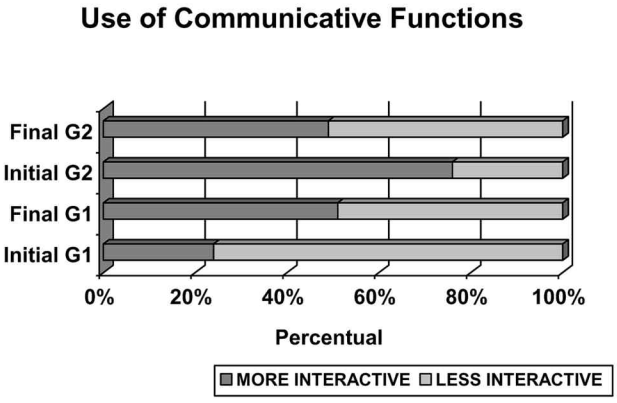


Figure 3. Comparative graphic illustrating the use of more interactive communicative functions and less interactive communicative functions in the initial and final recordings of Group 1 (G1) and Group 2 (G2).

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

interactive) communicative functions in group 1 with the expected decrease on the number of non-interpersonal (less interactive) communicative function. However, in group 2 there was a decrease in the number of interpersonal communicative functions and an increase in the non-interpersonal communicative functions.

Comparing the performance of groups 1 and 2 it can be observed that group 2 presented a better Functional Communicative Profile than group 1 after 12 months of therapy, revealed by the increase on the use of verbal communicative mean and decrease in the use of vocal mean. The findings of Fernandes (2005) agree with these results and suggest that there may be a relation between the use of the verbal communicative mean and the better communicative performance. The results found about the use of interpersonal and non-interpersonal communicative functions in group 1 agree with the studies by Cardoso and Fernandes (2003) that observed that with functional development of language there is a larger proportion of use of interpersonal communicative functions which is probably related to the intention of communication with the others.

Conclusion

This research allows the conclusion that in the analyzed sample, although there are differences among the groups, they are not statistically significant in none of the studied aspects. This lack of statistical significance may be related to the great individual variations within the autistic spectrum that poses difficulties to the determination of comparison groups and to the determination of a mean profile or a model (Fernandes 2003c and 2005, Cardoso & Fernandes, 2003).

The absence of statistical significance may also be attributed to the small sample size that didn't allow the identification of progress in the communicative performance of the group without therapist change. The results may still be related to the duration of the therapist-patient dyad, considering the possibilities of better results with more interaction time for the dyad, as observed by Fernandes (2003a).

Despite the absence of statistical significance in all the studied aspects, comparing both groups, it is possible to find a better communicative performance on group 2, where the therapist didn´t change during the 12 months. This performance can be observed in the increase of the number of communicative acts per minute, the larger occupation of the communicative space, the greater use of the verbal mean and the decrease in the use of vocal mean. The better results of group 2 may represent the possibility of new researches determine more expressive results.

The main purpose of this study was to identify the variations produced in two groups of children with autistic disorders undergoing language therapy with different durations of the therapist-patient dyad. However other studies, with larger number of participants, are necessary to allow more consistent conclusions about the therapeutic processes of children of the autistic spectrum.

It is important to mention that the use of adequate tools to the correct assessment of language development of children with ASD allows the language therapist/pathologist a broader and more comprehensive view of their communicative possibilities. This way, the verification of the necessary time for the best therapeutic results in communication may be useful to the professional practice.

References

American Psychiatric Association. (2002). *Diagnostic and statistical manual of mental disorders* (4th ed.), Washington, DC: Author.

Barros, C. G. C. (2002). Speech therapy applied to invasive development disorders. In W. Camargos Junior. *Invasive development disorders*. Brasília, Brazil: Ministério da Justiça.

Bishop, D. V. M. (1989). Autism, Asperger's syndrome and semantic-pragmatic disorder: where are the boundaries? *British Journal of Disorders of Comunication 24*, 107-121.

Cardoso, C. (2001) *Actuation of the speech therapy in a psychiatric association with autism spectrum disorders*. São Paulo, Brazil: USP.

Cardoso, C. & Fernandes, F. D. M. (2003). The use of interpersonal and non-interpersonal communicative functions in children os autistic spectrum disorders. *Pró-fono, 15*(3), 279-286.

Fernandes, F. D. M. (1996a). *Infantile autism*: *rethinking the speech therapy view*. São Paulo, Brazil: Lovise.

Fernandes, F. D. M. (1996b). Infantile autism. In F. D. M. Fernandes, L. M. Pastorelo & C. I. Scheuer, *Speech therapy in infantile psychiatric disorders* (pp. 21 – 32). São Paulo, Brazil: Lovise.

Fernandes, F. D. M. (2003a). Longitudinal study of the language workshop as a proposal of language to children with autism spectrum disorders. *Brazilian's speech language and hearing association's magazine 2*, 64-72.

Fernandes, F. D. M. (2003b). Language therapy procedures suggestions for autism spectrum disorders. In S. C. O. Limongi (Ed.) *Therapeutic procedures in language* (pp. 55-66). Rio de Janeiro, Brazil: Guanabara-Koogan.

Fernandes, F. D. M. (2003c). Communicative profile, social-cognitive performance, vocabulary and representation in children with autistic spectrum disorders. *Pró-fono, 15*(3), 267-278.

Fernandes, F. D. M. (2004a). Pragmatics. In C. R. F. Andrade, D. M. Befi-Lopes, F. D. M. Fernandes, & H. F. Wertzner *ABFW: infantile language tests in phonology, vocabulary, fluency and pragmatics* (pp. 83-97). Carapicuíba, Brazil: Pró-Fono.

Fernandes, F. D. M. (2004b). Language therapy to children with autism spectrum disorders. In: L. P. Ferreira, D. M. Befi-Lopes & S. C. O. Limongi (Eds.) *Speech hearing and audiology compendium* (pp. 941-953). São Paulo, Brazil: Roca.

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

Fernandes, F. D. M. (2005). Speech therapy outcomes of teenagers diagnosed with autistic spectrum disorders. *Pró-Fono, 17*(1), 67-76.

Fernandes, F. D. M. & Barros, C. H.C. (2001). Communicative functions expressed by autistic children: the use of specific procedures to insert them in the language therapy context. *Brazilian journal of speech and hearing therapy, 6*, 45-54.

Fernandes, F. D. M., Molini, D. R. & Barrichelo, V. M. O. (1997). Functional aspects and social-cognitive findings in the speech therapy to infantile autism: a preliminary study. *Infanto – Childhood and adolescence neuropsychiatry, 5*, 77-83.

Fernandes, F. D. M. & Teles, P. (2005). Language in autism spectrum disorders. *Brazilian's speech language and hearing association's magazine*, *10*(4), 207-210.

Kanner, L. (1944). Early infantile autism. *Journal of Pediatrics*, *25*, 211-217.

Mey, J. L. (2001). *Pragmatics: an introduction* (2nd ed.). Massachusetts: Blackwell.

Molini, D. R. & Fernandes, F. D. M. (2001). Specific test to social-cognitive analysis of children with autistic spectrum disorders: a preliminary study. *Themes of development*, *9*(54), 5-13.

World Health Organization (2007). *International disease classification 10th revision.* Retrieved from: http://apps.who.int/classifications/apps/icd/icd10online/

Received October 3, 2007
Revision received July 14, 2008
Accepted July 28, 2008

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

APPENDIX I

COMMUNICATIVE FUNCTIONS

	FUNCTION	INTERACTIVITY
AR	*Self-Regulatory*	–
C	*Commenting*	+
E	*Showing off*	+
EP	*Protest Expression*	+
EX	*Expressive*	+
J	*Game*	–
JC	*Joint activity*	+
N	*Naming*	+
NA	*Narrative*	+
NF	*Non-focused*	–
PA	*Requesting actions*	+
PC	*Requesting consent*	+
PE	*Declarative*	–
PI	Requesting Information	+
PO	*Requesting object*	+
PR	*Protest*	–
PS	*Requesting social routine*	+
RE	*Reactive*	–
RO	*Recognizing the other*	+
XP	*Exploratory*	–

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press

APPENDIX II

FUNCTIONAL COMMUNICATIVE PROFILE (FERNANDES, 2004)

Name:					**Age:**			**Date:**			
Tape:					**Diagnostic:**			**Therapist:**			
Function	Mean	N°	%	Function	Mean	N°	%	Function	Mean	N°	%
PO	VE			**PS**	VE			**PI**	VE		
	VO				VO				VO		
	G				G				G		
RO	VE			**C**	VE			**N**	VE		
	VO				VO				VO		
	G				G				G		
EX	VE			**NF**	VE			**XP**	VE		
	VO				VO				VO		
	G				G				G		
EP	VE			**PA**	VE			**PC**	VE		
	VO				VO				VO		
	G				G				G		
PR	VE			**E**	VE			**AR**	VE		
	VO				VO				VO		
	G				G				G		
PE	VE			**JC**	VE			**J**	VE		
	VO				VO				VO		
	G				G				G		
NA	VE			**RE**	VE			**MEIO**	**VE**		
	VO				VO				**VO**		
	G				G				**G**		

https://doi.org/10.1017/S1138741600002055 Published online by Cambridge University Press