

When “Goal!” means ‘soccer’

Verbatim fictive speech as communicative strategy by children with autism and two control groups

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Autism is characterized by repetitive behavior and difficulties in adopting the viewpoint of others. We examine a communicative phenomenon resulting from these symptoms: non-prototypical direct speech for non-reports involving an actual utterance from previously produced discourse (e.g. quoting somebody’s words to refer to them, Pascual 2014). We video-recorded the naturalistic speech of five Brazilian children with autism, five typically developing children of the same mental age and five of the same chronological age. They all used so-called ‘fictive speech’ (Pascual 2014, Dornelas and Pascual 2016) for narration, expressing needs, and referring to individuals and events (e.g. saying “*Goal!*” for ‘playing soccer’). Such verbatim

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fictive speech originated in specific prior interactions or in socio-communicative or socio-cultural knowledge. We found considerable differences in the three groups in the frequency and degree of creativeness of fictive speech as opposed to it representing standard linguistic formulae or echoing previously produced speech word by word.

Keywords: Autistic Spectrum Disorder; language development; fictive conversation; echolalia; metonymy; verbatim quotation

Autistic Spectrum Disorder (henceforth ‘ASD’) is an increasingly common neuro-developmental condition affecting perception, social behavior, and communication (APA 2013). This condition, which can be observed from early childhood, is characterized by a difficulty in adopting the perspective of others. This and related symptoms seem to result in flawed performance in activities that demand joint attention, imitation, and the understanding of other people’s intentions (Colombi et al. 2009). According to authors like Bråten (1998) and Tomasello (2003, 2005), language acquisition depends mainly on the ability to change perspectives and understand the intentions of others in scenes of joint attention. Deficiencies in these skills form a significant impairment in language-based communication. Other symptoms of autism, which undoubtedly affect ASD communication, are: (i) repetitive behavior and dependence on routines, (ii) poor flexibility or creativeness, and (iii) a focus on parts instead of the whole (see overviews in Prizant 1983; Wetherby 1986; Arciuli and Brock 2014).

In this paper we discuss a diagnostic feature of ASD speech, which we sustain reflects all these symptoms. This is ‘echolalia’, the echo-like repetition of the prior speech of others (Kanner

1943), which has been directly related to the mimetic and unidirectional behavior in autism (Carpenter and Tomasello 2000). We focus on so-called ‘functional echolalia’, that is the successful use of word-by-word repetition of previously produced discourse for the communicative purpose of the ongoing interaction (Prizant and Rydell 1984, Prizant and Duchan 1987). Examples are quoting somebody’s words to refer to them or replying to a question like “You have a dog, don’t you?” with an echo like “Yeah, I have a dog, don’t I?” (Fay 1967: 308). These are cases in which prior speech is not repeated for repetition’s sake (without apparent purpose or to practice a verbal sequence), nor is it used with a quotative function as in ordinary reported speech. Instead, speech heard previously, either immediately or after a substantial interval, is mentally activated and effectively used as an adaptive strategy to communicate in the here-and-now.

2. Echolalia

Echolalia, the repetition of the exact words from a prior speech event (Kanner 1943), has been shown to comprise a stage in the language development of all verbal children with autism (Paccia and Curcio 1982). Some young typically developing children also pass through a marked imitative period (Bloom et al. 1974; Clark 1977; Du Bois et al. 2014). An echolalic utterance may occur right after the reproduced speech sequence (i.e. *immediate echolalia*), or after a short or long period of time (i.e. *delayed echolalia*). Both types may appear slightly modified with old or new information, including information from the here-and-now (i.e. *mitigated echolalia*) (Wetherby 1986). Such echoing of prior speech often results in deictic reversal (e.g. ‘you’

instead of ‘I’ because ‘you’ was used by the original speaker, Oakley and Vidanovic 2014; Roberts 2014). Initially considered a feature to avoid, as it was thought to hinder learning, modern studies now regard echolalia as a functional adaptive strategy (see overview in Roberts 2014). Indeed, most echolalic speech in autism seems to have a communicative function, such as: managing conversational turns, referencing, providing new information, or expressing needs (Schuler 1979; Prizant 1983; Prizant and Rydell 1984; Prizant and Duchan 1987; Rydell and Miranda 1991; Dobbins et al. 2003; Sterponi and Shankey 2014).

Although some functions of echolalia have been identified and described, they remain insufficiently analyzed, as barely any qualitative studies have appeared that rely on naturalistic data (but see Sterponi and Shankey 2014, Sterponi and Kirby 2016; Dornelas and Pascual 2016). The qualitative analysis of situated (semi-)spontaneous echolalia is particularly revealing, since this is a pragmatic phenomenon that requires deep understanding of its context of occurrence, as well as the common ground shared by interlocutors (past utterances and speech formulae). This paper analyzes therapist-child conversations, which provide a real-life, ecologically valid setting that ensures enough data production, as the ASD children are constantly being challenged and encouraged to communicate, while being controlled enough as they do so (Rydell and Miranda 1991).

Based on a previous naturalistic study of five Brazilian children with autism (Dornelas and Pascual 2016), we divide echolalia into three types, depending on the origin of the direct speech constituent: (i) *specific prior interaction*, (ii) *socio-communicative formulae*, and (iii) *socio-cultural emblems*. As an illustration of the first type, specific prior interaction, consider the example below, produced by a seven-year-old boy with severe autism from our same database, when talking about the Disney movie ‘The Hunchback of Notre Dame’ (Dornelas 2018: 53-54):

- (1) THERAPIST: *De quem? quem mora no castelo, L.S. [child's name]?*
 'Who? Who lives in the castle, L.S.?'
 [...]
- CHILD: *Quasimodo↑ (.) Onde ele se meteu?*
 'Quasimodo! (.) Where did he go?'
- THERAPIST: (3,5) *Eu não sei de onde que é isso (.) deve ser de alguma encenação de história.*
 ((looking down as the one who speaking to herself))
 'I don't know where this is from (.) it's probably some staging of the history.'

Here, the child takes on the persona of the priest character, repeating his words in the dubbed Portuguese version of the movie, in order to refer to Quasimodo, the character to whom these words are addressed. As the therapist indeed interprets it, the child is thus reenacting a concrete prior communicative event that he experienced as an audience member as a means of answering a comprehension question in the here-and-now. Specific prior interactions may also involve the repetition of speech children heard as interlocutors, for instance an earlier turn in the ongoing conversation or in a previous communicative exchange. The example below, uttered by a seven-year-old boy with severe autism, illustrates the socio-communicative formula type:

- (2) CHILD: ((Looks at toys, especially a plastic telephone)) *Alô!*
 'Hello!'
- THERAPIST: *Alô! Senta lá pra gente brincar! Ó! Senta pra gente brincar!*
Hello! It's there for us to play with! Oh! Sit down for us to play with it!
 ((The child sits down and starts playing with the toys))
- THERAPIST: *De que que você quer brincar?*

‘What do you want to play with?’

CHILD: *Alô!*

‘Hello!’

The child uses the interjection “*Alô!*”, which in Portuguese is exclusively used for answering the phone, as a means to request playing with a toy telephone. The child is thus not making mental contact with a one-time enunciation produced by a specific individual in a specific situation, but is rather using a conventionalized expressions related to a given speech act commonly used in everyday communication in the linguistic community.

Consider now an example of a socio-cultural emblems, uttered by a six-year-old girl with moderate autism in a picture-naming task (Dornelas and Pascual 2016: 349):

(3) THERAPIST: *Quem que é essa↑*

‘Who is this?’

CHILD: *Béééé!!!* ((screaming with the protruding tongue))

The therapist has shown the child a picture of a cockroach playing guitar and singing like a rock star. Instead of naming the rock star or giving a description, the child resources to onomatopoeia and the theatrical imitation of a rock star’s prototypical facial expression when performing on stage. A type of behavior socio-culturally ascribed to an individual of a given profession thus metonymically serves to refer to a character with that profession. Such socio-cultural emblems may involve utterance types, emblematic gestures, and other behavior related to speakers’

encyclopedic knowledge of speech associated with a given group, institution, or type of event in a socio-cultural community.

Hence, whereas cases of immediate echolalia are all clear repetitions of a specific prior interaction, examples of delayed echolalia may either echo a one-time past occurrence or a frequently heard one like a household rule (Sterponi and Shankey 2014), or it may originate in common knowledge associated with given speech acts or overall socio-cultural information. Occurrences in all three categories often comprise ‘linguistic units’ (Langacker 1987), i.e. groups of words functioning as a whole (e.g. “I love you”, “Nice to meet you”). They may also involve mimetic gestures, for instance waving the hand in the conventionalized farewell gesture for expressing a wish to leave (Dornelas and Pascual 2016). These three categories do not seem to have clear-cut boundaries, but rather involve a continuum between more prototypical and more peripheral cases. A case of specific prior interaction that echoes a household routine in the child’s daily life, may in fact also constitute a socio-communicative formula that the child is also exposed to outside the home (e.g. “*Good morning!*”, “*Enjoy your meal!*”). Similarly, a conventionalized expression related to a given speech act may also be very culturally specific, as it may only be used in particular communal events or rituals, and thus also be understood as a socio-cultural emblem (e.g. the “*I do*” wedding vow, “*I solemnly swear to tell the truth, the whole truth, and nothing but the truth*”).¹

This study focuses on how verbatim or semi-verbatim repetition is used non-genuinely –or ‘fictively’, in the sense of Talmy ([1996] 2000), i.e. for purposes other than a direct report of

¹ For more examples on each of these types of echolalia, depending on the origin of the echoed utterance, produced by the same children as in this paper in a naturalistic and an elicitation study, see Dornelas (2018: ch. 5, ch. 6, appendix 7 and 8).

prior speech. By ‘fictive’, we mean the general cognitive process of employing resources in the here-and-now in order to gain mental access to events, actions, and states not in the here-and-now. Even though fictive speech has to date mainly been studied in healthy adult language use (see Pascual 2014, Pascual and Sandler 2016 for an overview), it has also been observed in child language (for an overview and references, see Pascual 2014: 4–5, 194) as well as in language pathology, as in the speech of adults with Broca’s aphasia (Versluis and Kleppa 2016) or indeed children with Autism Spectrum Disorder (cf. Dornelas and Pascual 2016). Fictivity in this article refers specifically to the practice of foregrounding elements (addressor, addressee, bystanders) in the CONVERSATION frame displaced in time and space. Functional echolalia of the delayed and mitigated kinds is fictive in that the utterances echoed are non-actual in their original or typical illocutionary force, as when the autistic child enacts a person answering the phone in order to request playing with a toy telephone in (2). As our data will show, autistic speech is conspicuously fictive in its bald use of speech representation as primary strategy.

In this article, we compare such usages of fictive speech by Brazilian children with autism and by two control groups, matching the ASD group in mental and chronological age. Given the great importance of echolalic speech in autism, and given that this also comprises a stage in the early development of (some) typically developing children, we expect the highest frequency of verbatim direct speech to occur in the ASD group, followed by the control group of very young children. We hypothesize that both groups will use verbatim or semi-verbatim fictive speech as an adaptation strategy to make up for difficulties in grammar and vocabulary.

3. Methodology

We video-taped interactions between children with autism and their therapists and between typically developing children and their mothers. The participants are 15 healthy native speakers of Brazilian Portuguese: (1) five children diagnosed with Autistic Spectrum Disorder (who are verbal and have no other handicap); (2) five healthy typically developing children of the same mental age as the experimental group; and (3) five healthy typically developing children of the same chronological age. Table 1 shows the gender and age distribution of the children in the three groups, as well as the mental age and level of autism among the experimental group.

Table 1. Participants

GENDER	ASD CHILDREN EXPERIMENTAL GROUP (age & autism level)		TD CHILDREN CONTROL GROUP 1 (matching mental age)	TD CHILDREN CONTROL GROUP 2 (matching chronological age)
	chronological age	mental age		
Female	6 years old	3 years old	3 years old	6 years old
	<i>moderate ASD</i>			
Male	7 years old	2 years old	2 years old	7 years old
	<i>severe ASD</i>			
Male	9 years old	3 years old	3 years old	9 years old
	<i>severe ASD</i>			
Male	11 years old	4 years old	4 years old	11 years old
	<i>severe ASD</i>			
Male	12 years old	3 years old	3 years old	12 years old
	<i>severe ASD</i>			

The degree of autism was determined by a children's psychologist prior to the study, using the translated and validated version of Schopler et al.'s (1986) 'Childhood Autism Rating Scale' (CARS) for its usage in Brazil (Pereira et al. 2008). The ASD children's mental age was established through two standard tests ran by the hospital prior to this study, the 'Protocol for Behavior Observation' (PROC, Zorzi and Hage 2004) and the 'Operacionalized Portage Inventory' (Williams and Aiello 2001).

Each child was filmed in four sessions of about 35 minutes each, totaling 35 hours spread over 60 sessions (20 per group), occurring on consecutive weeks. The therapist-child and parent-child interactions followed a similar pattern and may be considered semi-spontaneous, since the adults were merely instructed to interact with the children. They did so mainly through games, puppets, or toys in the case of the ASD and the younger control groups, and through picture books and casual conversations about their lives in the case of the older control group. The therapists and mothers selected the material and conversational topics, the children being usually allowed to choose the activities. The therapists, who are psychologists and speech pathologists, based their work on a socio-cognitive approach to language development and always tried to interpret the children's contributions. Furthermore, they constantly encouraged children to produce speech, corrected children, and kept asking until they received a satisfying answer. More specifically, the therapists used the so-called 'scaffolding' technique, first developed for classroom settings (Roehler and Caltlon 1997). This technique is based on the connectedness of social constructivism and the motivation of linguistic production through (among others): wh- and directive questions, binary response choices, discourse modeling, as well as syntactic and semantic expansion in situations of natural use of language. Such a setting, characterized by a high linguistic constraint level, is considered particularly conducive to the production of

functional echolalia by children with autism, who are by definition reluctant to engage in communicative interaction with others (Rydell and Mirenda 1991, 1994). On no occasion did the therapists or mothers consult the researchers on the suitability of the tasks for this study, the exact purpose of which was not revealed to them.

The ASD children were recorded during their weekly therapy session at the clinics for children with developmental difficulties where they receive treatment: the *Centro de Atenção ao Desenvolvimento Integral* ('Care Center for Holistic Development') and the *Espaço Desenvolver* ('Space for Development'), both in Juiz de Fora, Brazil. The typically developing children were all recorded in their private homes. The data gathering was approved by the Human Research Ethics Committee of the Federal University of Juiz de Fora. Parents, therapists, and clinic administrators had all previously signed an informed consent form.

When a piece of speech was related to a traceable communicative event (e.g. a movie or music DVD), the original source was examined in its entirety. On occasion it was necessary to consult with the children's therapists and/or parents in order to determine whether particular utterances echoed prior speech events unknown to us. This allowed us to assess the level of creativeness of the child's utterance, and thus determine if it involved pure delayed echolalia, mitigated echolalia, or a (semi-)creative enunciation. Segmental as well as supra-segmental features (frequency, intensity, and rhythm) as well as multimodal information (proxemics, gestures, gaze, pointing, facial expressions) further allowed us to interpret the children's speech, and assess whether they were attending to and responding to the question being asked. Since echolalic speech usually has altered prosody, this helped us determine whether the children's (semi-)verbatim speech was purely a repetition of prior discourse as opposed to it being used functionally as a communicative strategy in the here-and-now. The identification of each

echolalic occurrence and interpretation of its function was thus based on various and diverse communicative features that together contributed to the signaling of contextual presuppositions (Gumperz 1982). Such multi-feature, multi-modal analysis proved critical in this study, since our object of study is a pragmatic phenomenon in atypical use of language by individuals whose diagnosis includes difficulties in joint attention and intentional communication.

For the selection of examples, we followed the standard criteria in ethnomethodology and Conversation Analysis. We only considered instances in which the children responded consistently and followed the interactional pace (i.e. respecting conversational turns and maintaining eye contact), thus demonstrating their ability and intention to keep themselves engaged in the communicative process, understanding the task at hand and sustaining secondary, joint attentional forms of intersubjectivity (Oakley and Vidanovic 2014). We also checked that occurrences were consistent with the child's idiolect and with the communicative context, that they were understood by the interlocutor (by looking at their verbal and non-verbal reaction in subsequent turns), and occurred more than once with the same function. As for the data analysis itself, we used a combination of quantitative and qualitative methods in a collective case study design (Stake 2000, [2005] 2013). We consider this the optimal way to investigate a phenomenon that is common in several cases of the general ASD condition, and which is also observed with some frequency in typical early language development.²

In what follows, we present the qualitative analysis of the data in each group (section 4), and then the quantitative results and comparison between the three groups of children (section 5). We end with a discussion and conclusions.

² For further information on the data collection, interpretation, and selection, please consult the methodology chapter in Dornelas (2018: ch. 4).

4. Qualitative analysis

The three groups used verbatim fictive speech originating in specific prior interactions (e.g. a movie); socio-communicative formulae (e.g. “*Alô! Alô!*”); and socio-cultural emblems (e.g. screaming with the protruding tongue like a rock star). We observed word-by-word quotations, semi-creative instances (paraphrased quotations), and largely or completely creative instances (without a direct anchor in some specific previous interaction). In this section we deal with representative examples of each in the ASD and the two control groups. The order of examples goes from most to least common type and from more clearly verbatim to more creative.

4.1 ASD group

The five ASD children in our dataset all produced functional echolalia during the videotaped therapy sessions; we discuss at least one example per child. Since the most clearly echolalic cases are those originating in a specific prior enunciation, we start with examples of those.

Consider the following dialogue between child and therapist:³

(4) M.L.: 11-year-old male, severe autism (session 4/ part 2/2’40”–3’02”)

CHILD: ((leaning over to therapist, making eye contact and coming very closed to her))

Por que cê tá chorando? ((pretends to cry))

³ Underlining in the English translation of the transcript indicates echoed fictive speech. Please see the appendix for the transcription symbols.

‘Why are you crying?’

THERAPIST: *Você já parou de chorar.*

‘You’ve already stopped crying’

CHILD: *Por que cê tá chorando?*

‘Why are you crying?’

THERAPIST: *A M. >não está chorando↑<*

‘M. [child’s name] is not crying!’

CHILD: *Por que cê tá chorando?*

‘Why are you crying?’

THERAPIST: *M.L., >eu não vou perguntar<↑ (.) >Parou<↑*

‘M.L. [child’s full name], I’m not going to ask! Stop it!’

In (4), the child repeats a question his teacher had asked him at school earlier that day, when he was indeed crying. According to the therapist, the child intended to talk about what had happened. This utterance is thus a verbatim quotation of the actual question addressed to him a few hours prior, not functioning as a mere report but as a metonymic means to communicate his desire to discuss what had led to that speech act. Indeed, fictive speech –including verbatim fictive speech– frequently serves to make mental contact with an aspect of a communicative situation, rather than merely presenting its verbal content.

Consider a similar example of the repetition of a specific part of a past enunciation, this time one heard multiple times as overhearer rather than as addressee. In this case, the echolalic part is not presented as a means of setting up the entire communicative event in order to discuss it, as in (4), but as a means to name a participant in it. The therapist asks the child to identify characters from the popular music DVD ‘Lottie Dottie Chicken’ (‘Galinha Pintadinha’ in Portuguese), with

which the child is quite familiar, by pointing at cards with pictures of them. When presented with a particular card, this dialogue occurs (see also Dornelas and Pascual 2016: 354):

(5) R.M.: 7-year-old male, severe autism (session 4/47'06"–47'13")

THERAPIST: *E esse? Quem é esse? Ahm?*

'And this one? Who is this one? Eh?'

CHILD: (4,0) *Ladrilhá* ↑ ((looking therapist in the eye))

'To tile it!'

THERAPIST: *Uhm* ((facial expression of doubt)) (.) *Esse aqui é quem? Quem é esse?*

'Uhm (.) This one here is who? Who is this one?'

CHILD: *Ladrilhá* ↑ ((looking therapist in the eye))

'To tile it!'

THERAPIST: *Ladrim?* ((looks at camera)): *Não, é a música* ↑ (.) *Lá do céu lá do céu desceu um anjo* ((singing)) *Ladrilho, pra brilhar* (.) *É esse menininho mesmo.*

'Tile?: No, it's the song! (.) "There from the sky, from the sky descended an angel (.) A tile, for it to shine" (.) 'It's this little boy indeed.'

Here, the child uses a word in a song he had heard numerous times in the DVD to refer to the character that song was sung to in the original communicative context that he associates with that song. In the original music DVD, a woman character sings the folk song 'If this street was mine' to a little boy to put him to sleep. The Portuguese verb *ladrilhar* ('to tile') is prominent in this song, its final syllable being prolonged ("ladrilhaaaaar") and rhyming with the verb at the end of each verse (*passar*, lit. 'to pass'). This occurrence involves functional delayed echolalia, since a

considerable amount of time had passed since the last time the child heard the song in question. In this case word-by-word quotation is used as a communicative strategy to name the addressee of a prior utterance rather than the producer of it. The therapist's reaction, explaining why the child used a word in that song to refer to the character sung to, confirms that the strategy is effective, given the right common ground.

The next example is a repetition of a stored linguistic sequence, not originating from specific prior occurrences, as in the previous examples, but from socio-communicative knowledge of a ritualistic formula associated with a given interactional type. The therapist proposes a picture-naming activity with cards:

(6) I.F.: 9-year-old male, severe autism (session 2/part 2/1'42"-1'50")

THERAPIST: °*O que que o sino faz?*°

'What does the bell do?'

CHILD: ((looks therapist in the eye)) *Tlin tlin tlin*↑

THERAPIST: *Isso*↑ *toca*↑ *ele faz barulho*↑

'Yes! It rings! It makes noise!'

CHILD: ((turning his gaze to game board)) *Pode entrar*↑

'You may come in!'

THERAPIST: *Ah, pra alguém entrar?*

'Oh, so someone comes in?'

The child produces a simple interaction in two turns, one he associates with the recognizable social ritual of doorbell ringing and door answering, a socio-communicative exchange he likely

hears repeatedly in everyday life and/or on TV and in movies. Note that the repetition consists of the exact words commonly used in this interactional scene in Portuguese. The therapist understands that the child intended to communicate that the function of a doorbell is to announce one's arrival to be let through the door, rephrasing the child's words with a descriptive phrase.

Example (7) also illustrates the use of a common expression from a socio-communicative event type, but now one addressed to the referenced individual. The therapist asks the child to choose one of the cards on a board (each showing the picture of an object, animal, or person). The child chooses a card with a mouse holding a big piece of cheese.

(7) I.F.: 9-year-old male, severe autism (session 2/part 1/12'04"-12'30")

THERAPIST: *Agora vamos escolher outra.*

'Now, let's choose another one.'

CHILD: *Ai.*

'Aw.'

THERAPIST: *Quem você escolhe? [...]*

'Which one do you choose? [...]

CHILD: ((Points at picture of mouse; looks at therapist)) *Come tudo*↑

'Eat everything!'

THERAPIST: *Quem tá comendo tudo?*

'Who is eating everything?'

CHILD: *Rato.*

'Mouse.'

Here, the socio-communicative scenario of a caretaker ordering a reluctant young child to finish eating, surely a salient enough scenario in any child's everyday life, is metonymically set up through the verbal expression commonly used to express that command (*'Come tudo!'*, lit. 'Eat everything!'). This expression is not used to report or refer to a specific occurrence of it or to a typical type of interaction, but to the precise action of eating. The child need not be deluded to think that mice are encouraged to eat in the way young children often are, let alone that mice can understand language. Nor does the child need to construe the mouse within a fantasy world in which this may be the case (e.g. a Disney movie). Rather, a common expression associated with food consumption serves to refer to an individual portrayed holding the kind of food it typically ingests.

Example (8), by the same child, also involves echoing a common socio-communicative phrase, now integrating information from the ongoing interaction. The therapist asks the child to draw scenes from a farm that the two are building together. The child draws a sheep and the therapist asks him about it:

(8) I.F.: 9-year-old male, severe autism (session 4/part1/8'06"-8'18")

THERAPIST: *Ela tá dormindo ou acordada?*

'Is it [the sheep] sleeping or awake?'

CHILD: *Boa noite, ovelha*↑

'Good night, sheep!'

THERAPIST: *Ela tá dormindo?↑ Ah, então vou escrever a história da ovelha.*

'Is it sleeping?! Oh, then I'm going to write a story about the sheep.'

The child uses the everyday linguistic unit ‘Good night’, retrievable from everyday socio-communicative knowledge, metonymically to refer to the state of being asleep, which in the case of humans often follows somebody else’s verbalized ‘good night’ wish. Note that the child prefers to use a conversational pattern instead of selecting the word ‘sleeping’ from the therapist’s question, a phenomenon observed by others in ASD conversation (Sterponi and Shankey 2014, Sterponi and Kirby 2016). The child uttered a fairly fixed expression from a common interactional scene that surely occurs frequently in his everyday life, most probably because it is more entrenched in his lexicon.

Example (9) also illustrates the use of a verbal expression commonly associated with a given state in order to present that state, in this case integrating that common linguistic unit into a larger syntactic structure. The therapist asks the child to name the actions of characters on cards from ‘Lottie Dottie Chicken’. In one of the cards, the chicken has her mouth open, which the child interprets as a sign of surprise (Dornelas and Pascual 2016: 348):

(9) M.C.: 6-year-old female, moderate autism (session 2/26’20”–26’40”)

THERAPIST: *Quem é essa aí? E o que que ela está fazendo?*

‘Who is this? And what is she doing?’

CHILD: ((looks at card)) *Está (.) que susto*↑

‘She is: what a shock!’

The child enacts a communicative act of expressing disbelief through an exclamatory phrase ascribed to a character as a means to communicate that character’s mental and emotional state. This involves the ability to take the character’s perspective and speak for her. We do not believe

this exclamation was a mere repetition of a particular novel occurrence from a specific prior communicative event. Rather, it seems to have originated in the child's stored socio-communicative knowledge, this constituting a common Portuguese expression. The child introduced the exclamation with *Está* ('She is'), produced in the same speech prosodic stream, thereby grammatically embedding the expression of the character's reaction into a sentential structure. This makes it a fairly complex and not entirely uncreative occurrence.

Excerpt (10) involves a verbatim quotation retrieved from socio-cultural knowledge, and thus not related to a formula associated with a given speech act but with a socio-cultural phenomena (i.e. electoral propaganda). Therapist and child are making words with a mobile alphabet from the game 'Crosswords'. The child only writes the initials of political parties (Dornelas and Pascual 2016: 353–354):

(10) L.S.: 12-year-old male, severe autism (session 3/14'40"–15'03")

THERAPIST: *Vou botar outro 'P', vamos ver se você lembra de outro partido.*

'I'm going to put another 'P'. Let's see if you can remember another [political] party name.'

CHILD: ((adds 'P')) PR

THERAPIST: *O que que é PR?*

'What is PR?'

CHILD: (.) ((looks at camera)) *Representa a sua voz↑ (.) é a sua vez↑.*

'It represents your voice! It's your time!'

THERAPIST: *Ah, é partido também↑*

'Ah, it's a political party too!'

The child's 'It represents your voice! It's your time!', is a slightly modified slogan from the 2010 Brazilian national election campaign. The child seems to have extracted an enunciation from its original communicative context in order to refer to a party that he associates with this specific utterance or to what could stand for a political party, since electoral propropaganda campaigns for any party often involve such slogans. The child looks at the camera at the time of production, something that did not occur any other time in the four videotaped sessions. This may be related to theatricality, also observed in other instances, and a common feature of fictive speech (Brandt and Pascual 2016). This may be further motivated by the fact that the original context was one the child viewed on TV. The child used this quotation functionally twice in the same session.

The example below, by the same child, also involves a semi-quotation from stored socio-cultural knowledge, integrated with information in the ongoing interaction in a particularly ingenious manner. The child is asked to put pictures of objects and individuals in their corresponding places in a big picture of a town with buildings, like a church, a school, etc. The child chooses the picture of a man playing a bell (Dornelas and Pascual 2016: 350–351):

(11) L.S.: 12-year-old male, severe autism (session 3/25'18"–25'40")

CHILD: *Sino.*

'Bell.'

THERAPIST: *E aonde fica o sino?*

'Where is the bell supposed to be?'

CHILD: *(.) Respeitáve::l público↑ (.) Com vocês, o tocador de sino de todos os tempo::s↑*

'Ladies and gentlemen, boys and girls! With you (is) the best bell player of all times!'

THERAPIST: *Ele trabalha no circo?*

'He works in the circus?'

CHILD: *Sim.*

'Yes.'

With the vocative “Respeitável público!”, i.e. the prototypical introductory speech of Portuguese-speaking circus directors, the child metonymically evokes the CIRCUS frame. The therapist understands what the child meant, as evidenced in the following turns. That final question-answer sequence between therapist and child, in which she asks if the character enacted works in a circus and the child replies affirmatively, shows that the child knows the word ‘circus’, but chose a conversational structure instead. The child adds novel information regarding a bell player, thereby implying that the picture of the bell should be in the circus. This involves a construction with fixed parts (i.e. ‘Ladies and gentlemen, boys and girls! With you the (best) X of all time’) and a variable slot (i.e. ‘bell player’). This is a so-called *pivot scheme*, which typically developing children begin to use around 18 months of age (Tomasello 2006). This occurrence is a clear example of mitigated echolalia, as it integrates an additional piece of information from the here-and-now.

The next three and final examples from the autism group involve different types of mitigated echolalia from prior specific interactions (two from movies and one from the child’s daily life). These are the least echolalic and thus the most creative occurrences of this group. Example (12) constitutes the paraphrase of an enunciation heard by the child as an observer. Therapist and child are examining a book on the Snow White tale. When looking at a page showing the main

character escaping to the forest after meeting the hunter, the child is asked about him (Dornelas and Pascual 2016: 353–354):

(12) M.C.: 6-year-old female, moderate autism (session 3/6'41"–6' 50")

((child looking at book))

THERAPIST: *Quem levou ela na floresta?*

'Who took her to the forest?'

CHILD: ((looks at therapist)) *Quer fugir? (.) Quer fugir, Branca de Neve?*

'Do you want to run away? Do you want to run away, Snow White?'

The child's enunciation is not a verbatim quotation of a previous utterance by the therapist or from the book or the movie. In the Disney movie, which this child has watched several times, the hunter lets Snow White escape, shouting (in the dubbed Portuguese version the child knows): "*Vá! Fuja, menina! Vá! Para bem longe!*" ('Go! Run away, girl! Go! Far away!'). Thus, the child paraphrases the hunters' words at that moment in the story in order to refer to the hunter. This seems to indicate a development of functional echolalia, since it is slightly creative, demonstrating the gist of the original utterance, while still using the quotative construction for ostension (rather than for reporting prior speech).

The following example, by the same child, illustrates a similar strategy. There, an interactional pattern from the Snow White movie is used as a scheme to create a novel piece of dialogue (Dornelas and Pascual 2016: 354):

(13) M.C.: 6-year-old female, moderate autism (session 3/4'38"–4'51")

THERAPIST: *O que que o passarinho estava fazendo com o milho?*

‘What was the little bird doing with the corn?’

CHILD: *O que está comendo? O milho.*

‘What are you eating? Corn.’

THERAPIST: *Ah (.) O que você está comendo? O milho?↑ Ele está comendo o milho mesmo↑*

‘Ah. “What are you eating? Corn!”? It is eating corn, indeed!’

The underlined words are constructed (in the sense of Tannen 1986, [1989] 2007), they do not reproduce any dialogue in the book, the movie, or the therapist’s prior speech. But the dialogue as such is not entirely creative; it seems to be partly based on an interaction pattern between Snow White and the birds that occurs several times in the movie. The first time that Snow White talks to the birds in the dubbed Brazilian Portuguese version, she says: “*Sabem de um segredo? Não irão contar?*” (‘Do you know a secret? Won’t you tell it?’), to which the birds respond by chirping. The second time, Snow White asks them: “*O que fazem quando levam susto?*” (‘What do you do when you are frightened?’), and the birds respond by warbling a song. Hence, the child seems to use the standard structure of a question from a human to birds, and the birds’ response. The child could have answered the question merely by saying ‘eating’, a verb she has access to. Instead, she inserts that verb in a new imagined verbal exchange with the bird, thereby turning the topic of conversation into a question-answer structure, mimicking Snow White’s dialogues with birds in the movie. This seems to be a communication strategy, since the child probably had difficulty accessing the lexicon or coming up with the gerund form required by the therapist’s question. This example further illustrates so-called ‘resonance’, “the catalytic activation of affinities across utterances” (Giora and Du Bois 2014: 351), which occurs in both

autistic and non-autistic conversation (Hobson et al. 2012; Du Bois et al. 2014). It creates a semantic and/or grammatical parallelism between linguistic elements in discourse, only available to the participants in the here-and-now. The child rearranges elements of the therapist's words in her response, the therapist repeating it in the next turn (see Figure 1).

Figure 1. Notational scheme resonance (example (13))

	<i>O que que</i>	<i>o passarinho</i>	<i>estava</i>	<i>fazendo</i>	<i>com</i>	<i>o milho?</i>
	'What	the little-bird	was	doing	with	the corn?'
	<i>O que</i>		<i>está</i>	<i>comendo?</i>		<i>O milho.</i>
	'What		are-you	eating?		Corn.'
<i>Ah</i>	<i>o que</i>	<i>você</i>	<i>está</i>	<i>comendo?</i>		<i>O milho?!</i>
'Oh	what	you	are	eating?		Corn!?'

This involves a semantic and syntactic coupling. The phrase *O que* 'what' is used similarly in the third turn and the verb in the therapist's question appears in the same tense in subsequent turns. Still, there is alignment between the verbs 'to do' and 'to eat' in the use of the gerund in the three turns; the phrase 'corn' also appearing in much the same way throughout. Utterance two by the child is a packed-up turn or full adjacency pair as the answer to the therapist's previous utterance, utterance three being the summation of one and two. In all three, the same syntactic structures are distributed between therapist and child.

Resonance reappears later in the same session, when the therapist asks about the child's weekly routine:

(14) M.L.: 11-year-old male, severe autism (session 2 / part 3/2'30"-2'37")

THERAPIST: *E você hoje vai na nataçãõ?*

'Are you going to swimming class today?'

CHILD: *Vai na padaria?*

'Are you going to the bakery?'

THERAPIST: *Tá bom, mas depois vai na nataçãõ?*

'Okay, but then you go swimming?'

CHILD: *Nataçãõ?*

'Swimming class?'

After therapy, this child always goes swimming, but only after stopping at the bakery for a snack. Any change in this routine would greatly disturb him. When the therapist asks about his following activity, the child mentions the bakery as a method of mentally organizing his own routine, since this is the place he goes to before the activity the therapist inquired about. To this aim, the child uses elements of both the semantic and syntactic structure of his interlocutor's immediately preceding utterance, as shown in Figure 2.

Figure 2. Notational scheme resonance (example (14))

<i>E você hoje</i> 'Are you today	<i>vai na</i> going to-the	<i>natação?</i> swimming?
	<i>Vai na</i> 'Are-you-going to-the	<i>padaria?</i> bakery?
<i>Tá bom, mas depois</i> 'Okay, but then	<i>vai na</i> you-go to-the	<i>natação?</i> swimming?
		<i>Natação?</i> 'Swimming?'

The interrogative form is maintained in the child's two response shifts, despite their pragmatic value as statements. The verb *vai* 'to go' + *na* 'to-the' are coupled in the first three turns. Finally, we observe the lexical item for 'bakery', where there was the word for 'swimming' in the therapist's previous turn. This suggests the use of a substitution slot structure, similar to the one in (13).

We now turn to the data of the two control groups, matching the autism group in mental and chronological age.

4.2 Control group 1 (matching mental age)

The first control group comprises five typically developing children between 2 and 4 years of age, corresponding to the sex and cognitive age of the ASD group. These young children produced fewer instances of fictive speech than the ASD group, more grammatical constructions, and a broader vocabulary. Still, they used more verbatim repetitions than purely creative occurrences (see Table 2 in the next section). As in the previous subsection, we ordered examples according to their source and level of creativity (from less to more creative).

Examples (15) and (16) illustrate common occurrences by this group. In (15), the mother asks the child to name different parts of his body:

(15) R.M.: 2-year-old male (session 1 / Part 1/4'20"–4'33")

MOTHER: *Como se chama isso?* ((pointing at child's hair))

'How do you call this?'

CHILD: ((looks at mother)) *Cabelo.*

'Hair.'

MOTHER: *E isso?* ((pointing at child's cheek)))

'And this?'

CHILD: ((looks at mother)) *Ochech (.) dá beijo.*

'Ichech (.) Give kiss.'

The child first tries to produce the Portuguese word for 'cheek' (i.e. *bochecha*), and when he appears to fail to remember it or find it difficult to pronounce, he says "*Dá beijo*" ('Give kiss') instead. This expression is short for "*Dá um beijo*" ('Give a kiss'), often used by caregivers in Portuguese child-directed speech, together with a pointing-to-one's-own cheek gesture, when requesting a kiss. The child resorts to an easily accessible utterance type in a socio-communicative scene involving that body part that is salient and familiar to him. The child uses the same falling intonation in "Give kiss" to name the cheek that he used when providing the right word for 'hair'. This shows that he is using this linguistic unit for a naming function (to answer the mother's questions) as opposed to genuinely (enacting a kiss request).

In (16) the mother asks her son about pictures of objects and animals from the game ‘Lince’. The child then finds the drawing of a ball:

(16) R.M.: 2-year-old male (section 4 / Part 2 / 11’30”–11’38”)

CHILD: *A bola.* ((pointing at picture and looking at game board))

‘The ball.’

MOTHER: *A bola (.) Como é que cê faz com a bola?* ((pointing at picture and looking at game board))

‘The ball. What do you do with the ball?’

CHILD: *Go::l↑*

‘Goa::!!’

The child refers to playing soccer through the most prominent expression in the SOCCER frame, one that represents a particularly significant and easily knowable or recognizable scenario in Brazil. The exclamation “*Gooooo!!*”, widely used both by players and sports commentators when a soccer player scores, metonymically serves to set up the entire activity of playing soccer and can thus illustrate what one can do with a ball.

Example (17) constitutes a more creative occurrence, involving the use of a communicative pattern from a context type the child is familiar with, as in utterances (13) and (14) from the ASD group. Mother and child are discussing the picture movie ‘Frozen’, which the child watched a few days prior. The mother tries to get her daughter to identify the magical powers of the main character, princess Elsa.

(17) M.S.: 3-year-old female (session 1/part 3/2'32"-2'43")

MOTHER: *O que aconteceu com a Elsa que ela não mora mais com a Ana?*

'What happened to Elsa that she no longer lives with Ana?'

CHILD: *Ela tem poderes.*

'She has powers.'

MOTHER: *Tem poderes? De que?*

'She has powers? Of what?'

[...]

CHILD: *Não sei.*

'Don't know.'

Mother: *Ah, já sei (.) Ela solta fogo*

'Ah, I know. She can cast fire.'

CHILD: ((shakes her head 'no'))

MOTHER: *Então o que é que ela solta?*

'What does she cast instead?'

CHILD: *Congelar*↑ ((throws arms and hands forward firmly, palms facing downward, imitating the movie character's gesture when using powers))

'Freeze!'

MOTHER: *Congelar.*

'Freeze.'

As in (16), the child answers a question with an intended referential answer ('freezing powers') through a verbal demonstration of that referent. When using her powers, the fictitious character

throws her arms and hands forward, a common dramatic hero gesture. In Portuguese movies and cartoons, such a gesture is often accompanied by a phrase in the infinitive, defining the power being exercised (e.g. “Transform”, “Open Sesame”). In ‘Frozen’, however, princess Elsa solely makes the performative gesture. Thus, when communicating that the princess does not cast fire but ice, the child appears to use a generic interactional pattern, a COMMUNICATION frame from her experience with cartoons and children’s movies, which when applied to the situation at hand results in the fictive utterance “Freeze!”. The child’s answer is effective and may have been used as an adaptive strategy, as a way to compensate for a difficulty accessing lexicon or grammar.

In the following pages we discuss representative examples from the second control group.

4.3 Control group 2 (matching chronological age)

The speech by the five typically developing children of the same chronological age as the children with autism (6-12 years old) was considerably different from that of the young children from the first control group and certainly from that of the ASD group. Most instances of fictive speech by the children in this group were more creative, although full repetitions of previous speech did occur. The children over 9 years of age mainly presented structures and a level of creativity comparable to adult speech (cf. Tannen 1986, [1989] 2007; Clark and Gerrig 1990; Myers 1999; Pascual 2014).

In (18), mother and child are reading a Mauricio de Sousa cartoon in which the main character is looking in vain for coins in her pockets. The mother encourages the child to narrate the story in her own words:

(18) S.D.: 6-year-old female (session 3/part 2/3'03''–3'57'')

- MOTHER: *De repente, olha só↑ O que aconteceu?*
'Suddenly, look at that! What happened?'
- CHILD: *Puff↑ (.) Achei uma moeda↑*
'Hey! I found a coin!'

No actual words appear in the cartoon bubbles to express the character's thoughts or feelings. Thus, the child shifts to the character's viewpoint, verbalizing in the first person the character's excitement when finding a coin. The child deploys a schematic interactional pattern, giving voice to the silent character as a means of presenting that character's mental and emotional state. A similar occurrence is produced when reaching the cartoon's last frame:

(19) S.D.: 6-year-old female (session 3/part 2/3'03''–3'57'')

- MOTHER: *O que que aconteceu? Você acha que ela conseguiu comprar o sorvete?*
'What happened? Do you think she finally bought the ice cream?'
- CHILD: *Adeus sorvete↓ (.) Sem moedas↓*
'Good bye, ice cream! No coins...'

The child uses a conversational formula to address a non-animate interlocutor, the ice cream, in a fictive farewell (cf. Pascual 2014: 43-45, Brandt and Pascual 2016). A common phrase when parting is used metonymically to set up such a socio-communicative scene, as a metaphorical means of expressing failure to achieve a goal (buying ice cream).

The next occurrence illustrates a very common Portuguese construction in informal adult speech, used to express thoughts and feelings (Rocha and Arantes 2016). The mother asks the child about another Mauricio de Sousa cartoon they are reading on a man encountering a hollow watermelon:

(20) C.R.: 9-year-old male (session 3/part 1/9'38"-10'32")

MOTHER: *E aqui, ele ficou como? Como que ele ficou na hora que ele olhou?*

‘And here, he was like what? How did he look when he looked?’

CHILD: *Ele ficou com dúvidas.*

‘He had doubts.’

MOTHER: *Dúvida? Por que que ele ficou?*

‘Doubts? Why did he have [doubts]?’

CHILD: *Ele pensou assim (.) Uai, o que que aconteceu? (.) A melancia por fora tá perfeita e por dentro não tem nada?*

‘He thought like this (.) Wow, what happened? (.) The watermelon is perfect on the outside and it has nothing in the inside?’

Here, what looks like an ordinary reported speech construction is used in order to express bewilderment. As in (18) and (19), the child is not quoting a previously heard string of words from a previous narration of the story, nor is he reading a speech or thought bubble in the cartoon itself. Instead, he produces a novel fictive enunciation ascribed to the character, which overtly communicates that character’s state of mind, as evidenced by the lead-in phrase, *Ele pensou*

assim ('He thought like this'), clearly demarcating the mind of the speaker from the mind of the cartoon character.

The following example also illustrates perspective shift and a high level of creativity. Mother and son are discussing the child's school experiences. The boy begins talking about one of his school friends, who is wheelchair-bound.

(21) I.C.: 11-year-old male (session 1/part 2/11'08"-11'27")

CHILD: *E eu nunca vi a menina reclamar nada, assim (.) Ah! Minha cadeira e tal.*

'And I've never seen this girl complain about anything, like (.) Ah! My wheelchair and all.'

Note that the child does not describe his friend's overall positive attitude, but rather takes her point of view and enacts a fictive exclamation communicating a negative attitude that the child in question does not have. This is a counterfactual and thus purely constructed utterance serving to evoke the attitude that would transpire if one were to produce it in earnest (cf. Tannen [1989] 2007: 111). By using a fictive exclamation presented as lacking in the child's speech, the child can argue for precisely the opposite, that the girl in question admirably never complains about her condition.

5. Qualitative results and comparison

In about 35 hours of recordings we found 230 occurrences of fictive speech (see Table 2): 109 produced by the ASD group, 68 by control group 1 (matching the ASD group in mental age), and 53 by control group 2 (matching the ASD group in chronological age). Most occurrences by ASD children were of delayed echolalia, some of immediate echolalia, some of mitigated echolalia (i.e. paraphrased repetitions), and only a few could be categorized as creative instances. Control group 1 (2-4 year-olds) showed more cases of verbatim repetition than of creative instances, unlike control group 2 (6-12 year-olds), who produced the most creative cases, not directly originating in previous interactions (see Table 2).

Table 2. Fictive speech according to creativity level

	Verbatim repetitions	Semi-creative enunciations	Creative enunciations	<i>Total</i>	<i>%</i>
ASD group	86	21	2	<i>109</i>	47,39%
CG 1	32	26	10	<i>68</i>	29,56%
CG 2	17	2	34	<i>53</i>	23,04%
Total	135	49	46	230	100%

As table 2 further shows, most occurrences are fictive enunciations based on the verbatim repetition of previously heard discourse. These also constitute the great majority of occurrences by the ASD group and a small majority of those by the first control group of very young children. The older control group mostly produced creative enunciations. The semi-creative instances originated in speech the children had heard before the recordings. As explained in section 2, all verbatim and semi-creative cases of fictive speech were divided into three

categories, according to the kind of situation they echoed: (i) a specific prior interaction (e.g. lines from a movie, as in (12)); (ii) a socio-communicative event type (e.g. “*Good night!*” when going to sleep, as in (8)); and (iii) a socio-cultural event type (e.g. “*Ladies and gentlemen...!*”, as in (11)). See Table 3 for the division as to the origin of fictive speech by the three groups.

Table 3. Fictive speech occurrences per interactional origin

	Specific prior enunciations	Socio-communicative formulae	Socio-cultural emblems	<i>Total</i>	<i>%</i>
ASD group	89	10	8	<i>109</i>	47,39%
Control g. 1	34	7	17	<i>68</i>	29,56%
Control g. 2	4	5	10	<i>53</i>	23,04%
Total	127	22	35	230	100%

These results--small as the database is--show that children with autism produce more utterances that are anchored to specific previous interactions than to standard phrases associated with overall socio-communicative or socio-cultural knowledge. Children from the ASD group also produced the fewest creative occurrences. By contrast, children in the second control group (of the same chronological age as the ASD group) produced more creative direct speech than the other two groups. We found no important difference between the three groups in occurrences originating in social and cultural events. This may be due to the fact that specific interactions are much more varied and closer to the interactional reality of children, regardless of mental or chronological age. Tables 4 and 5 show the distribution of occurrences per category and per child in the autism group.

Table 4. Distribution of fictive speech in the ASD group: According to creativity level

ASD child	Sex	Age	ASD level	Verbatim repetitions	Semi-creative enunciations	Creative enunciations	Total
M.C.	F	6	Mod.	8	7	2	17
R.M.	M	7	Sev.	12	16	0	28
I.F.	M	9	Sev.	23	13	0	36
M.L.	M	11	Sev.	12	10	0	22
L.S.	M	12	Sev.	4	2	0	6

Table 5. Distribution of fictive speech in the ASD group: Per interactional origin

ASD child	Sex	Age	ASD level	Specific prior enunciations	Socio-communicative formulae	Socio-cultural emblems	Total
M.C.	F	6	Mod.	7	4	4	17
R.M.	M	7	Sev.	25	2	1	28
I.F.	M	9	Sev.	32	4	0	36
M.L.	M	11	Sev.	22	0	0	22
L.S.	M	12	Sev.	3	0	3	6

It shouldn't be surprising that the only child who produced creative fictive speech enunciations, if only 2, was the one child with moderate autism. It is also striking but not surprising that one child with severe autism (M.L.) only produced fictive speech based on specific prior enunciations, and that this were also by far the biggest type of fictive speech by two other children with severe autism (R.M. and I.F.), a fourth child suffering from severe ASD barely producing any (6 in total).

As for the communicative functions of echolalia in situated conversation, we found similarities and differences between the use of immediate and delayed echolalia (and see also

Dornelas 2018 for more details). In our data, occurrences of immediate echolalia produced by the ASD group served to: answer questions, change topics, and maintain the conversational flow. The functions of late echolalia were similar to those found in previous studies (Prizant and Rydell 1984; Prizant and Duchant 1987; Rydell and Mirenda 1994), namely: providing information, confirming information, calling someone, protesting, requesting, situational association, and managing conversational turns. We also found that delayed echolalia was used for: descriptions, affirmative and negative answers, referring to people, characters, animals, providing the functional properties of objects, maintenance of the discursive flow, topic change, explanation, and narrative. Our data further confirms the findings of previous studies (Paccia and Curcio 1982; Rydell and Mirenda 1994) in that most instances of functional echolalia occurred in answers to wh-questions and directives in highly linguistically constrained conditions. The therapists' reactions to the children's echolalic utterances seemed to affect the way their dialogue unfolded. In some cases, ASD children extended their engagement in the conversation and in one occasion the child eventually managed to access the right lexical item, which had first been substituted by echolalia earlier (e.g. (7)).

The use of resonance, which we treat as a type of mitigated echolalia originating in a specific prior interaction, was common in most instances from the ASD group. In some cases, so-called dynamic resonance occurred only in the ongoing conversation in the here-and-now (e.g. (13) and (14)). Resonance was systemic in delayed echolalia, when the enunciation in question was associated with linguistic information available in the speaker's communicative context, but which was not part of the previous interaction. As expected given previous studies (Du Bois et al. 2014), the typically developed children from the two control groups also produced resonance, both systemic and dynamic resonance, but with less frequency.

In sum, strategic use of the CONVERSATION frame proves a functionally useful resource in language development among normally developing and ASD populations.

6. Discussion and conclusions

The main goal of this study was to describe and analyze verbatim fictive speech used as communicative strategy of children with autism, compared with typically developing children. We observed that ASD children produced more verbatim fictive speech than controls of the same cognitive age, this group of 2-4 year-olds producing more such instances than the control group matching the autism group in chronological age. The second control group, 6-12 year-olds, produced the most creative fictive speech occurrences, functioning primarily as a pragmatic option to make their discourse more interesting, lively, and humorous. The use of fictive speech seemed to be an effective strategy, as evidenced by the fact that all occurrences dealt with were correctly interpreted by their interlocutors.

The repetition of the prior speech of others by ASD children, seems to illustrate the five main characteristics of autism laid out in the introduction. Problems with changing perspectives in echolalic speech becomes manifest in a strong characteristic of autistic speech, namely deictic inversion (cf. Oakley and Vidanovic 2014). When considering an utterance previously produced by others as a possibility to set up the scene associated with that utterance and integrate it to the ongoing discourse, ASD children often produce the same but inapposite deictic form, sounding, therefore, like a reversal (e.g. (1) ‘Why are you crying?’ for ‘I want to talk about why I was crying’, and see similar examples in Dornelas 2018). ASD children’s repetitive behavior and

poor flexibility is clearly illustrated in the amount of echolalic speech produced, in particular verbatim repetitions of specific prior enunciations, the largest category by the autism group in our data. The ASD detail-oriented mind is manifested in the focus on a part of a communicative scene (e.g. a verbal formula associated with a speech act) as a means to metonymically set up the scene associated with that utterance and integrate it to the ongoing discourse. Note however, that whereas (semi-)verbatim fictive speech reflects clear features of autism, it also shows that ASD children are able to: adopt the viewpoint of others, as when ascribing speech to (silent) characters (e.g. (10)); and use language somehow creatively, both by using an old utterance in order to mean something new in the here-and-now and on occasion adapting such utterance to the ongoing discourse (e.g. (13), (14)). This adaptive strategy enables some flexibility in ASD speech, a linguistic form of communication that is in fact characterized by its inflexibility. Echolalic speech, which is the result of a neurophysiological deficit, is thus leveraged by cognition as an adaptive tool. Hence, we understand functional echolalia as part of a broader concept, along with other productions that use the CONVERSATION frame as cognitive basis (Pascual 2014, Pascual and Sandler 2016).

The difference between the speech of individuals with and without autism with regard to the use of verbatim speech is in its function. In ASD language use, repetition of prior speech functions as an anchor, when children don't have full control over construing the fictive addresser or addressee, but only attempt to manage the immediate conversation. In 'normal' speech by children and adults, however, this same phenomenon functions as a creative tool, used deliberately for some kind of effect, such as creating humor or vividness (cf. Tannen 1986, [1989] 2007; Clark and Gerrig 1990; Myers 1999; Pascual 2014). Language use is inherently polyphonic (Bakhtin [1975] 1981, 1986), but typically developed children and adults have

greater control in managing the (semi-)verbatim fictive speech with respect to separating out the fictive interactant roles and demarcating what speech/thought belong to whom, as is evidenced in example (20).⁴

Non-trivially, in their interaction with therapists, the therapist's reaction to the child's speech also proved essential to this engagement, as well as becoming a sign that these occurrences are an aid in lexical access and maintenance of the discursive flow. It is necessary for therapists to attempt to become familiar with the linguistic profile of each child, their use of the CONVERSATION frame, and their interactional preferences. That way, they can better understand them and use the functionality of their echolalic production as a therapeutic tool.

Fictive speech, it seems, is a way for children with autism to make mental contact with prior interactional experiences and effectively use them as an adaptive compensatory communicative strategy. As compared with typically developing children's ever increasing skill at creative embellishment, the ASD follow a strategy of echolalic recapitulation.

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⁴ For a more exhaustive account of ASD verbatim speech in terms of the innherenty intersubjective nature of language, see Dornelas and Pascual (2016) and Dornelas (2018: ch. 2).

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Appendix

Transcription symbols in this paper should be read as follows:

- ↑ and ↓ indicate high and low intonational curve;
- **boldface** indicates prosodic emphasis;
- ° ° indicates low voice volume
- :: indicates elongation;
- (.) indicates a pause of up to 2 seconds; (...) indicates a longer pause;
- >> << indicates acceleration of speech;
- / marks (self) interruption;
- [] indicate that the bracketed speech was garbled;
- (()) frames text describing non-verbal communication and overall contextual information;
- Underlining marks the sequence of interest.

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