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What discourse analytic approaches contribute to the study of language and autism

A focus on conversation analysis

Laura Sterponi

University of California, Berkeley, USA
sterponi@berkeley.edu

Kenton de Kirby

University of California, Berkeley, USA
kenton@dekirby.net

In this article, we offer a framework for conceptualizing the contribution of discourse analytic approaches to the study of the verbal communication of children with autism, with an emphasis on conversation analysis. We argue that insights from these approaches serve to complexify traditional deficit interpretations of prototypical features of autistic language, such as pronoun atypicality, pragmatic difficulties, and echolalia. Our framework is presented in three parts, each comprising a theoretical premise about language made by discourse analytic approaches and the premise's methodological corollary. To illustrate, we analyze extracts from three children with autism, pointing to competencies and interactional processes and that are largely invisible in mainstream research. Finally, we describe how these insights offer fruitful suggestions for clinical intervention.

Keywords: autism; language; discourse analysis; conversation analysis; pragmatic deficit

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Introduction

The purpose of this paper is to offer a framework for conceptualizing what discourse analytic approaches to the study of language contribute, theoretically and methodologically, to our understanding of the verbal communication of individuals with autism. By focusing on talk-in-interaction – that is, spontaneously occurring verbal activities in their ordinary contexts of occurrence – discourse analytic approaches engage perspectives on language traditionally neglected in autism research. This way, the prototypical features of autistic language, notably pronoun reversal/avoidance, pragmatic deficit, and echolalia/perseverative speech, are given interpretations that complexify the classic view. In mainstream autism research, these verbal behaviors are generally taken to be symptomatic of the affected individual's underlying condition – direct manifestations of deficits in areas such as social relatedness, perspective taking, and abstract thought. While certainly not denying that there might be a neurological basis of autism, nor that affected individuals have difficulties in these general domains of functioning, discourse analytic approaches to studying language use offer much needed nuance, caution and alternative interpretations, leading to insights that have the potential to transform our perspective on language in autism. These insights also offer fruitful suggestions for intervention (see discussion section).

Discourse analytic approaches include discourse analysis proper, interactional linguistics, linguistic anthropology and – our predominant focus in this article – conversation analysis. While differing in disciplinary origin, emphasis, and core constructs, discourse analytic approaches are united by the view that social interaction is the primordial scope and domain of language (Schegloff, 1989), and therefore that naturally occurring interaction should be privileged as a source of data – particularly when research questions explicitly reference social interaction, as is often the case in research on autism.

This paper is a companion to Sterponi, de Kirby and Shankey (2015). In that paper, we advocated for a theoretical reappraisal of language in autism research, consistent with the framework we present here. Our approach in that paper was to re-analyze data from other researchers' published work, giving the data sometimes complementary and sometimes alternative interpretations. Here, we expand our general treatment and analyze illustrative extracts of our own data from three children with

autism, who are close in age but display a wide range of linguistic ability. Our data were generated from video recordings of interactions with caregivers in the home, in the context of activities of daily life. The video recordings were fully transcribed according to the notation conventions of conversation analysis (Jefferson, 2004). The illustrative exchanges were selected because they exemplify prototypical features of autistic language and are amenable to deficit interpretations of social withdrawal and limited communicative ability. In our analysis of the exchanges, we demonstrate how the theoretical and methodological tools of discourse analytic approaches bring to light competencies and interactional processes and that are largely invisible in mainstream research.

Our framework is presented in three parts, each comprising a theoretical premise about language made by discourse analytic approaches and the premise's methodological corollary. In each part, we review the contribution of discourse analytic studies that have marshaled the theoretical premise to generate insights on the verbal communication of children with autism. Following the review, we offer an illustrative analysis of an extract from our own data corpus.

In the first section, we explicate how discourse analytic approaches treat language use as an interactional accomplishment and why this premise entails careful attention to the inevitably constraining influence of an individual's interlocutor. This stands in contrast with approaches that take utterances to be transparent reflections of an individual's cognition, and which scrutinize subjects' utterances in isolation, blind to the influence of the interlocutor, who – in autism research – is often functioning as a 'neutral' experimenter or interviewer.

Second, we detail how discourse analytic approaches treat language as social action, and therefore give attention to the sequential context in which utterances are produced – to where the focal utterance appears and what it accomplishes in the sequence of turns that constitute the communicative exchange. This orientation to language and analytic approach markedly contrasts with a great deal of mainstream autism research, which takes the essence of language to be a referential system that encodes descriptive information about states of affairs in the world, and which decontextualizes utterances from the flow of ongoing interaction.

Finally, we explain how discourse analytic approaches acknowledge that language is also an experience in and of itself. The acoustic and formal properties of speech are part of the experience of what language is

accomplishing in the very moment it is engaged. In fact, by giving attention to the sound and form of language use, scholars of talk-in-interaction have shown that poetic phenomena permeate everyday speech – an experiential sensibility that is generally absent in mainstream autism research.

Language as interactional accomplishment: attention to the interlocutor

Language can be conceptualized as a cognitive tool that enables humans to organize and express internal mental processes. From this perspective, what a person says is often regarded as an isolated production, a transparent window into the person's thoughts and feelings. Naturally, then, an individual's utterances are assumed to provide straightforward evidence of his or her language development and linguistic competence. This general view licenses the examination of a person's utterances in isolation, whatever the particular research question.

Discourse analytic approaches, however, maintain that this decontextualized view does not take into account the inseparability of language from communication, and communication from interaction. Drawing from conversation analysis, we assume that interaction is indeed the primordial scope and domain of language (Schegloff, 1989). Sentences in communicative exchanges therefore emerge as the product of an interactional process between speaker and hearer, accomplished over time and incrementally (Goodwin, 1979, 1980; Schegloff, 1982). This makes problematic any treatment of individuals' utterances in isolation when assessing ability or competence.

Among the fundamental tenets of conversation analysis is that utterances simultaneously display an analysis (or *orientation*, in conversation analytic terms) of what came before, and project (i.e., create an expectation of) what will follow. Consider the simplest possible exchange:

1 A: Hey.
2 B: Hi.

At first glance, such an exchange seems so mundane and simple as to hardly warrant careful attention. Consider for a moment, however, speaker B's response in line 2. In offering a return greeting, speaker B displays her analysis that speaker A was offering her a greeting in line 1. While this may seem self-evident, note that the word 'Hey' could convey a range

of meanings, the interpretation of which is supported by situational context, tone, bodily cues, and other such resources. We can infer that speaker B is orienting to speaker A's initial turn as a greeting because a greeting projects a returned greeting. This simple sequence exemplifies the notion of an *adjacency pair* in conversation analysis (Sacks, 1992; Schegloff, 1968), which encapsulates the observation that many types of utterances in talk-in-interaction conventionally come in pairs: question-answer, greeting-greeting, invitation-acceptance/rejection, etc. The production of the first part of an adjacency pair establishes an expectation that the recipient will produce a reciprocal action (*second pair part*) at the first possible opportunity. The production of the expected response is indicative of the recipient's understanding of the first-pair part as such, that it is a certain kind of initiation invoking a certain kind of response. If the second pair part is not offered, its absence will not pass unnoticed and will likely become the object of remedial effort. Because speaker A's greeting projects a certain response, if speaker B does not provide it, speaker A may conclude, among other possibilities, that she was not heard – an analysis that might be displayed by a repeat attempt of a louder 'Hey', following a pause. While the adjacency pair organization only comprises a relatively narrow range of conversational actions, the underlying mechanism is germane to a much wider array of conversational actions: turns in conversation are interlocked; a current action projects a next relevant action and often responds to a prior action.

The critical conclusion is that interlocutors create opportunities for and at the same time constrain each other's actions in conversation (Goodwin & Heritage, 1990). This fact cautions us from evaluating a child's utterances in isolation, and compels us to think about child language not solely in terms of cognitive and linguistic development. A child's verbal contribution to a communicative exchange does not only relate to her developing cognitive capacities and linguistic competence, but also to the specific contingencies of interaction in which she is engaged (Gardner & Forrester, 2010; Maynard & Marlaire, 1992; Sidnell, 2010).

Discourse analytic studies in autism have offered important insights into the interactional significance and context sensitivity of key features of autistic language, notably echolalia and inflexibility. In a case study of immediate echolalia in an eleven-year-old boy with autism, Local and Wootton (1995) showed that the interlocutors often designed their utterances in forms that allowed the use of repetition on the child's part

as appropriate response to their turns. Repetition triggering initiations and appropriate echoes occurred predominantly within identifiable language games, such as labeling toy objects or book images. Furthermore, Wootton (1999) demonstrated that even the most functionally opaque form of repetition not only presented distinctive linguistic, rhythmic, and prosodic characteristics but also tended to occur in response to specific interactional moves. By being produced in specific sequential positions within distinguishable courses of action, even those echoes that seemed unambiguously autonomic no longer could be assumed to be indiscriminate automatic reactions.

Similar findings are reported by Sterponi and Shankey (2014). Using discourse and acoustic analyses, the authors demonstrated that repetitive speech in a child with autism responded to discernible interactional trajectories set up by the interlocutor. For instance, immediate echoes were observed to occur in two specific sequential contexts, after a didactic correction or following a behavioral directive, both situations being highly restrictive of the child's behavior.

Muskett, Perkins, Clegg and Body (2010) have examined the emergence of inflexibility, a behavioral trait symptomatic of autism, in the speech of an eight-year-old girl with autism. Using conversation analysis to examine the girl's play sessions with her speech therapist, the authors demonstrated how the girl's inflexibility was contingent upon the adult interlocutor's attempts to open new topics of conversation, which would shift the trajectory of interaction away from her preferred activity (a narrative on 'Rex the Dinosaur'). The authors thus argued for inflexibility to be considered 'an interactional phenomenon' (ibid., p. 1) and for acknowledging that '"non-impaired" speakers can be implicated in the manifestation of symptomatic behaviours' (ibid., p. 1).[1]

To illustrate the interactional context of the child's utterances, specifically the relationship between the child's speech production and the turn design of his interlocutors, we now turn to an extract from our own data corpus of spontaneous interaction of children with autism with their family members and tutors in the home setting. In the extract we observe Ivan, who was 5;11 and had a mean length of utterance (MLU) of 2.28 at the time of the video recording. Despite the significant delay in language development, Ivan was an active participant in verbal interactions with family members and tutors. He often initiated conversational sequences, most typically basic adjacency pairs, and was fairly responsive to those launched by his interlocutors.

The extract contains an occurrence of pronoun avoidance, which together with pronoun reversal, is one of the most distinctive features of autistic language (in fact pathognomonic of the condition, according to Kanner, 1943). Described as the reversed use (e.g. 'I' for 'you' and vice versa) or avoidance (proper name or role name in third person constructions) of personal pronouns, pronoun atypicality is generally taken to reflect difficulties in self–other relatedness and impaired interpersonal perspective-taking (e.g. Hobson, Lee & Hobson, 2010). In this extract, we show how terms of address and syntactic constructions employed by the adult interlocutor in her first pair part can result in the production of pronoun atypicality by the child in the subsequent turn.

In our data set of Ivan's interactions, we have observed extended use of baby talk by adults when addressing the child. Baby talk is characterized by distinctive phonological, morphological, lexical, syntactic as well as intonational features, many of which are simplified alterations of the standard adult language (Ferguson, 1977). Among such modifications are the use of nouns rather that pronouns (for example, 'Can you help dad?' rather than 'Can you help me?') and third person constructions rather than first and second person ones (for instance, 'Where is Ivan going?' addressed to Ivan, rather than 'Where are you going?'; or 'Mommy is hungry' rather than 'I'm hungry').

When the interlocutors used parental names (i.e. Mom, Dad, Mommy, Daddy) or proper names for self-reference, and third person construction to refer to themselves or the child addressee, we found that the child adapted to the personal reference frame and syntactic construction of the interlocutor, which resulted in his 'avoidance' of person pronouns. This phenomenon is conspicuous in the following extract, in which Ivan is interacting with his after-school tutor Shelly. Ivan and Shelly are cleaning the board to begin drawing shapes. Ivan takes the initiative and indicates that he wants to draw a heart (line 1). His formulation of intent is grammatically appropriate and contains the first person singular pronoun 'I'. We shall see that Shelly's subsequent clarification sequence introduces a shift in personal reference to which Ivan adapts in his response.

Extract 1: Drawing shapes with tutor

Ivan, tape no. 1

```
1   IVAN:    I want to make a hea:rt. ((sits in front of
             board with back to Shelly; holds a marker in
             hand))
```

```
2   SHELLY:  okay. mmh. you want to make a heart?
3   IVAN:    make heart ((turns to look at Shelly))
4   SHELLY:  who makes a heart. Ivan or Shelly?
5   IVAN:    Ivan Shewy ((hands marker to Shelly)) Shewy make
             a heart.
```

In line 2, Shelly utters an understanding check that is in keeping – syntactically and in personal reference format – with Ivan's opening utterance. Ivan's echoic response in line 3 seems to be only partially satisfying for Shelly (Ivan's response confirmed the action being projected but not the agent). In line 4, she formulates an open wh- interrogative ('who makes a heart') and then appends an alternative question ('Ivan or Shelly?') to it, which shifts personal references from pronouns to proper names, thereby instantiating a typical baby talk feature. The alternative question format projects a (type-conforming) response that contains a partial repetition (i.e. one of the provided options) (Raymond, 2003). After echoing the two alternatives, the child selects one, Shelly as response (line 5). Ivan's reply, which if taken in isolation would be treated as an occurrence of pronoun avoidance, thus emerges as an appropriate response to his tutor's simplified alternative question.

One could object that Ivan's response in line 5 indicates that his utterance in line 1 was actually an instance of pronoun reversal, referring to Shelly as 'I'. We would argue, however, that if the analytic focus is not limited to talk but includes also the moment-by-moment use of non-verbal semiotic resources, such as gaze, embodied action and object use, this interpretation can be easily refuted: When Ivan opens the sequence (line 1) by announcing his plan of action, which linguistically constructs him as subject/agent via the indexical-referential 'I', he faces the board and holds the marker in his hand. He continues to hold the marker and orient to the board during the first clarification sequence (lines 2 and 3). When the tutor poses the second clarification question, in line 4, Ivan turns to look at Shelly and then hands the marker to her, just prior to uttering his response in line 5. So Ivan's bodily orientation and handling of the marker support an interpretation of the child's referential forms as appropriately used. At the beginning of the sequence, the child was projecting and gearing up for drawing on the board. When he utters the choice for Shelly to draw the heart, he hands to her the marker and shifts his torso sideways to make room for Shelly to access the board.

In summary, in this extract we saw that the child's 'pronominal avoidance' was actually an accommodation to a frame of personal reference set up

by his interlocutor. As such, the child's pronoun non-use was contextually sensitive. In simplifying speech addressed to the child with autism, the interlocutor can constrain him to use simplified forms himself. Leveraging insights from conversation analysis, this finding was borne out of a consideration of language as interactional accomplishment and an analytic attention to the influence of the interlocutor.

Language as social action: attention to sequential context

There is an intuitive plausibility to the idea that the essential function of linguistic utterances is to make statements about some state of affairs in the world, which can be true or false to varying degrees. This intuitive view finds sophisticated expression in a great deal of twentieth-century philosophy, which was motivated by a concern with fundamental questions of truth and meaning – questions such as 'How is knowledge possible?' and 'What is the relationship between language and truth?'. Such questions were pursued from the assumption that language is a referential system, and that statements embody logical propositions derived from the meaning of their constituent parts and the relations between them (Carnap, 1952). Closely related to this line of inquiry is a view of communication as an exchange of information (Shannon & Weaver, 1949), predicated on the linguistic system's capacity to articulate and convey propositional content. If we take naturally occurring everyday conversation as our focus of analysis, however, we find that another essential property of language takes prominence in shaping the 'meaning' of utterances: its capacity to implement social actions. Thus, in analyzing language in use, it is critical to consider not only utterances' propositional content, but also what actions they are doing. Undoubtedly, in everyday exchanges language is mobilized to do things – to request, invite, excuse, defer, greet, and so on, as well as to inform.[2]

Language as action is a fundamental tenet of discourse analytic approaches. Consistent with our focus in this article, we shall further unpack this general view of language with reference to conversation analysis in particular. Students of conversation have posited 'the omnirelevance of action' for talk-in-interaction (Jefferson & Schenkein, 1978; Schegloff, 1995): utterances are produced by their speakers and attended to by their recipients for the actions they implement. For instance, utterances like,

'Do you know what happened to me?' – and generally turns with the syntactic format of 'Do you know + [embedded wh- question]?' – are often treated as pre-announcements, despite their structure as polar (i.e. yes/no) questions (Schegloff 1988). They are then answered with a repeat of the question word included in the pre-announcement ('What?' or 'What happened to you?' rather than 'No'), which moves the sequence forward and gives the go-ahead for the announcement proper. In other words, talk-in-interaction is first and foremost constructed and interpreted as action – in fact, sequences of action, which are responsive to prior actions and implicative for following actions.

In methodological terms, the awareness that utterances implement social actions entails careful attention to the sequential context in which utterances appear. It is the contextual embeddedness of utterances in specific interactional trajectories that enable them to perform actions, and to be recognizable for the actions they implement. After all, depending on context, a single utterance can perform a range of actions, and a particular action can be implemented by a range of specific utterances. A famous heuristic for conversation analysts is 'Why that now?' In other words, why does that particular utterance appear where it does – what is it doing there? Note that this question is just as relevant for conversational participants, who must continually and actively make sense of what their interlocutors are doing with their turns, and to monitor whether these conclusions turn out to be correct.

By conceptualizing verbal sequences in terms of courses of action and by giving attention to the sequential position of utterances, Ochs and associates have delineated a cline of competence with respect to verbal communication in the 16 children with high-functioning autism or Asperger syndrome who were part of their integrated ethnographic, discourse analytic and clinical study (Ochs, Kremer-Sadlik, Sirota & Solomon, 2004). The children were observed to master conversational turn-taking, felicity conditions of speech acts and sequences in ways that demonstrated fine coordination with the interlocutors. They displayed moderate success in recognizing and constructing situational scenarios; and they were least successful in grasping socio-cultural indexes that engaged social roles, identities, institutions and dispositions (ibid., p. 159).

An appreciation of both 'the propositional flow of discourse' and 'the unfolding sequences of conversational actions' (Ochs & Solomon, 2005, p. 154) allowed the authors to elucidate distinctive patterns in autistic

children's practical reasoning and conversational participation. Of special interest here is the phenomenon that the authors defined as *proximal relevance*: when participating in a conversation on unfamiliar topics or requiring moment-by-moment recalibrations, the children in Ochs' study routinely remained engaged in the interaction by expressing ideas that were 'not quite in synch with the focal concern' (ibid., p. 158) but nevertheless connected to the unfolding conversation. Whereas a traditional deficit oriented perspective would have dismissed those utterances as incoherent, Ochs and Solomon show that they achieve proximal coherence in two alternative ways: either they 'make the interactional contribution locally relevant to what was just said or what just transpired' (ibid.) (failing however to attune to the overarching concern or topic under consideration) or they 'shift the focus away from personal states and situations to topically relevant impersonal, objective cultural knowledge' (ibid.). While confirming the children's social and communicative difficulties, Ochs and Solomon's notion of proximal relevance also recognizes intelligibility in their modus operandi.

Similarly, Maynard (2005) showed that the 'wrong' answers children with autism give to standardized test questions display a clear logic – unarguably atypical, but nevertheless intelligible and systematic. Maynard observed that when children with autism answered the 'what do you do when' subtest questions of the Brigance Diagnostic Inventory of Early Development (e.g. 'What do you do when you're cold?'), their answers treated the questions as eliciting narratives, rather than as hypothetical problems. For instance, they systematically deployed the linguistic marker 'and then' as preface to the answer, thereby creating a 'narrative tie' to the question (ibid., p. 515).[3] While atypical, the logic of these answers is closer to that which informs common sense responses to 'what do you do when' questions in everyday conversation, as compared to the answers the test envisions as 'correct' (ibid.).

We return to our own data to illustrate the value of approaching language as social action and giving analytic attention to sequential context. Once again, we present an extract that exemplifies features of language atypicality that have long been associated with autism – specifically, pragmatic deficits, which are often attributed to impairments in theory of mind and general cognitive inflexibility. Through our analysis we problematize this assumed relationship by demonstrating that the utterances of the child with autism are responsive to a specific interactional trajectory launched by

his interlocutor. More specifically, we shall see that the child's 'irrelevant' and 'literal' utterances serve to resist and deflect an undesirable course of action set forth by his mother.

In this extract we encounter Aaron, who was 5;10 at the time of the video recording. Aaron's MLU was 3.92, which is only slightly below that expected in typically developing children of his age. Aaron was an active participant to verbal interactions with his parents and familiar interlocutors. While his verbal interactional bids are not frequent, Aaron is responsive to others' initiations and is able to build on their turns to remain engaged and expand the conversational exchange.

Aaron is having lunch with his mother. At the beginning of the meal, Mom has stipulated with Aaron that if he eats ten peas he will then get a cookie. Aaron, however, is reluctant to eat that many. In the following selection, we see Mom trying to persuade Aaron to keep eating peas by asking him to take two at a time. In response, he initiates an exchange about ballet class that appears to be a classic example of autistic pragmatic impairment, in that it is topically irrelevant and introduced with no attempt at a comprehensible transition from previous talk. In our analysis, we will posit that although Aaron's move is indeed atypical, it also demonstrates an attunement to Mom's moves and her overarching pragmatic goal.

Extract 2: Meal with Mom

Aaron, tape no. 1

```
1     MOM:     how about two more peas.
2              (12.0)  ((Aaron eats chicken, hums and rocks in his
               chair; then stares upward in front of him))
3     MOM:     how about two more peas.
4              (5.0)  ((Aaron looks up at Mom; she raises her
               eyebrows; Aaron stares in front of him))
5     MOM:     what do you think.
6              (1.5)
7     MOM:     you've got eight more to go.
8              (4.0)  ((Aaron continues eating, rocking and humming))
9     MOM:     cause you only had two.
10             (23.0)  ((Aaron continues to chew his food; he turns
               his upper body away from Mom before turning back
               towards the table as he swallows his bite))
11 → AARON:    I can get one more class or I can do (.) private
               lessons for,
12             (2.0)
13    MOM:     what are you talking about.
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14 → AARON:  after (.) two more classes I can do a private lesson.
15   MOM:    what are you thinking about. ((shaking head no))
16           (1.5)
17   AARON:  Lo:ttie.
18   MOM:    oh:: (1.0) Lottie.
19           (1.5)
20   MOM:    are you thinking about ballet?
21   AARON:  yes. ((turning back towards the table))
22   MOM:    so do you want to get private lessons or do you want
             to do the class?
23   AARON:  no class.
```

At the beginning of this sequence, Aaron does not proffer the response invited by Mom through her four successive prompts, in lines 1, 3, 5 and 7, as well as the pause containing Mom's nonverbal cue (raising eyebrows expectantly) in line 4. Long pauses fill the space in which Aaron's reply was expected. Only after the fourth and longest pause of 23 seconds does the child contribute a turn to the conversation (line 11), but the reference of his turn seems disconnected with what immediately preceded, hence unresponsive to Mom's prompts. Mom's 2–second hesitation to respond and her confused reply 'What are you talking about?' emphasize the strangeness of Aaron's turn. He simply appears to have launched into another subject without preparing Mom for the shift – and in fact the incomplete construction of his turn, ending with a preposition, seems designed to obtain a collaborative completion by the interlocutor (Lerner, 1996), as if he presumes Mom should know what he is talking about. After she asks for clarification (in line 13), he responds with a revised version, 'After two more classes I can do a private lesson', and then when met with confusion for a second time ('What are you thinking about?'), Aaron replies with 'Lottie', the name of his ballet teacher (line 17). Mom finally recognizes what Aaron is referring to and then goes along with his topic shift to discuss Aaron's ballet lessons and his desire to have private lessons rather than a group class.

At first glance, Aaron's topic-shift seems wholly inappropriate and even inconsiderate of his interlocutor, who needs to ask for clarification twice in order to comprehend the shift. However, his out-of-place statement is actually responsive to one of Mom's earlier turns, though not in the sense that she had projected. One of Mom's usual methods of regaining Aaron's focus when he appears distracted or withdrawn is by asking the question 'What are you thinking about?' With this familiar utterance, she solicits his reengagement via the disclosure of his inner thoughts. Therefore, it is

noteworthy that in line 5, Mom's question 'What do you think' is similar to this usual attention-getting device – even though in this context her turn might be referring to the proposition of 'How about two more peas?' and therefore meant to be responded to with compliance rather than interpreted literally. Furthermore, when looking at this exchange with a lens that delineates turns as social actions, it becomes apparent that Aaron's 'inappropriate' topic shift serves to divert Mom's attention from her aim of getting him to finish his peas. He first does not reply and remains silent, but Mom's persistence is eventually met with a conversational move by Aaron that is so out-of-place and confusing that Mom is moved to respond to it instead of continuing to pursue her objective. In discussing a plan for ballet lessons, Aaron is very engaged and the exchange unfolds for approximately 7 minutes.

We can thus see that, when viewed from a perspective of language that acknowledges its potential for social action, we can reappraise Aaron's move as functional and even strategic, rather than simply indicative of an underlying deficit in pragmatics and social interaction. His move pointedly responds via resistance and distraction towards Mom's imperative to complete a non-preferred activity, and is successful in deferring his acquiescence.

In summary, we suggest that approaching language as social action offers an important dimension of intelligibility to the verbal communication of children with autism. Turns that might be perceived as inappropriate – because topically irrelevant, syntactically incongruent, or alternatively as too literal or formulaic – may emerge as sensible and fitting with respect to discernible courses of action that the child is pursuing. Of course, the autistic modus operandi with language may remain atypical even under an analysis informed by a sensitivity to social action and sequential context. However, such an analysis uncovers orderliness and purposefulness which traditional interpretation overlooks.

Language as part of experience: attention to the sound and form of language

Common sense dictates that speakers choose their words based on semantics, on what words mean. While this is certainly true to a great extent, Harvey Sacks and Gail Jefferson – who were instrumental in laying the foundation of conversation analysis – observed a range of phenomena regarding word selection that went beyond the semantics of the sentences

in which the words occur (Jefferson, 1996; Sacks, 1992). For instance, they noted the apparent ubiquity of the repetition of speech sounds. Consider some examples reported by Jefferson:

> 'Claire: …there's only one on the Ways'n Means [C]ommittee. and I [c]annot serve on two: be[c]ause 'hhhh all these [c]a[k]es and [c]andy and [c]rap…'

> 'Audrey: °hhh en I: I: [w]ill uh be: up that [w]ay [w]'n- (.) uh Thur:sdee.'

In the first example (Jefferson, 1996, p. 13), we find a string of *k* sounds. It would appear that the expletive at the end of the sentence was selected because of its sound, since there are any number of words that could carry the same meaning in context. While one might argue that this is simply coincidence, examples like the second (ibid., p. 5) expose the underlying process of sound selection. Because a string of *w* sounds was underway, the speaker started to say Wednesday (w'n in Jefferson's transcript) instead of the intended Thursday. Thus, Sacks and Jefferson made a compelling case that speakers employ tacit procedures to select words that involve some degree of 'historical sensitivity' with respect to sound (Sacks, 1992, p. 308). More broadly, they demonstrated that *the poetics of everyday speech* (Jefferson, 1996; Sacks, 1992) is an omnipresent phenomenon of significant analytic interest.

Subsequent scholarship in conversation analysis has extended this line of inquiry (Beach, 1993). Wooffitt and Holt (2011) have demonstrated that individuals who are asked to tell personal introspective narratives in the context of a psychology experiment generate a range of poetic forms typically associated with classical literature. Conversation analytic research on child interaction has also documented the frequency of various forms of language play (Fasulo, Liberati & Pontecorvo, 2002; Goodwin, 2007; but consider also Keenan, 1974 as a notable forerunner of this line of research).

Discourse analytic researchers outside of conversation analysis have shown that non-semantic processes operate not only within but across utterances in interaction. Turn design and word selection are sensitive to parallelism, and attuned to the form and tempo of preceding turns (e.g. Briggs, 1993; Urban, 1989). According to John Du Bois's theorization on *dialogic syntax* (Du Bois, 2014), speakers design their turns to reproduce selected aspects of a prior utterance. This process yields 'pairing of patterns at varying levels of abstraction, ranging from identity of words and

affixes, to parallelism of syntactic structures, to equivalence of grammatical categories and abstract features of form, meaning, and function' (ibid., p. 359). Resulting from this pairing and mapping of speakers' turns is *resonance*, which enacts affinities across utterances (ibid.). Viewed from the perspective of dialogic syntax, language is structured in interaction in ways that are not only based on the communication of intended meanings, but to engage the sounds and forms of others' talk.

Attention to the sound and form of language has been urged by linguistic anthropologist and discourse analyst Elinor Ochs in her articulation of a phenomenological perspective on language. In her visionary essay 'Experiencing language', Ochs has contended that 'the focus on language as symbol … has largely occluded a view of everyday speech as an experience in itself' (Ochs, 2012, p. 149). In other words, Ochs argues that ordinary talk is permeated by *enactments of language*, where language affirms itself *as experience*. Apart from their referential and instrumental functions – that is, beyond predicating upon the world and performing social actions – 'enactments of language are *experienced* as they are produced and as they are perceived' (ibid., 150). Drawing from Agamben, Ochs provides the simple but incisive example of the word 'shoe'; our experience of producing and hearing the word inevitably becomes a part of how we experience the objects to which the word refers.

In petitioning to infuse the analysis of everyday speech with a sensibility towards the 'experiential potential of language' (Ochs, 2012, p. 154), Ochs suggests that this sensibility is particularly important in investigating the discourse of children with autism spectrum disorders. As an illustration, she presents the analysis of a short interaction of an 11-year-old boy with Asperger syndrome and his mother, in which the perseverative speech of the child, filled with repetitions of precise time references and onomatopoeic words, produces an enthralling effect, transporting the interlocutors inside the temporal domain of the episode being recounted.

The analytic purchase that attention to sound and form of language offers to understanding autistic language is further evidenced in Sterponi and Fasulo's study (2010) of formulaic and repetitive language and verbal play in the spontaneous interaction of a five-year-old child with autism. The authors show that, against a general difficulty in engaging the child in verbal exchanges, stretches of sustained attunement between him and his familiar interlocutors were often episodes of verbal play. In those episodes, the dominance of words' semantic meaning was diminished;

alliterations, repetitions and variations tied the utterances together in a rapid yet highly coordinated back and forth of conversational turns, thereby enacting togetherness via language play.

We turn now to our own data to illustrate the value of an analytic sensibility to language as part of experience for illuminating the verbal behavior of children with autism. We present here an extract that features highly repetitive speech, namely occurrences of immediate echolalia and perseverative language, using the terminology habitually employed in reference to autism. Through our analysis we offer an alternative characterization of the phenomena. On the one hand, our analysis discerns 'linguistic structures of engagement', elements of dialogic resonance and the production of cross-speakers reverberations (Du Bois, 2014). On the other hand, our analysis also highlights the experiential potential of language, its capacity not only to predicate on an experience but to becoming an experience itself, 'the living experience of enacted language' (Ochs, 2012, p. 155).

This extract features Benjamin, who was 6;3 at the time of the video recording and whose MLU was 5.85, which exceeds the level of typically developing children of Benjamin's age. His turns often consisted of complex sentences and the pragmatic scope of his speech was wide, including assertions, questions, requests, directives, and assessments. In our data, Benjamin is constantly, almost incessantly talking to others, yet perceivably without a strong orientation towards his interlocutors as other selves – that is, towards the attitudes of the other as a central dimension to explore and to relate to his own.

Benjamin is leafing through an atlas of the world with his mom, a familiar activity for them. Benjamin often fancies travelling to the countries he identifies on the maps. The exchange that follows unfolds with the atlas open at the Europe map.

Extract 3: Looking with Mom at the Atlas of the World

Benjamin, tape no. 2

```
1    MOM:  where do you wanna go first.
2    BEN:  I wanna go first. (1.5) I wan- when I am a teenager
           I'll go (.) to the Netherlands.
3    MOM:  yeah. that's a good place for teenagers.
4    BEN:  really?
5    MOM:  yeah. I was there when I was a teenager.
6    BEN:  I wan- I wanna go there when I am a teenager.
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7     MOM:   °yeah°
8     BEN:   people go to Canada when they are twenty-o- twenty
             one.
9     MOM:   they do?
10    BEN:   yeah.
11           (2.5)
12 →  BEN:   people that are in (.) Poland  go to- (.) go to- go
             to- go to Sweden. and people that are in Sweden go
             to Denmark. and people that are in Denmark go to
             Norway.
13           (1.5)
14    BEN:   [so-
15    MOM:   [it's a lot of moving around.  so they sw- keep
             switching?
16 →  BEN:   an- yes. an- an- and and people in Norway go to the
             United Kingdom. an- and people in the United Kingdom
             go to Northern Ireland. and people in Ireland go to
             Nai- Ireland. an- and people in I- Northern Ireland
             go to- (.) go to France. and people in France go to
             Spain. and people in (.) in- in Spain go to
             Portugal. and people in Portugal go to hh. (2.0) go
             to Union of Soviet Socialist Re[publics.
17    MOM:                                  [heh heh. Well this's
             a o:ld book.
```

In the first part of this extract (lines 1–7) there is noticeable repetition between Mom's and Benjamin's utterances. Deploying what Sacks referred to as 'partial repetition tying' (Sacks, 1992, p. 722), the interlocutors build on each other utterances by recycling segments of the prior turn and adding to it an original component. For instance, Mom's 'you wanna go first', in line 1, is repeated by Benjamin with the appropriate pronoun shift, in line 2, and then expanded with an original component 'when I am a teenager I'll go to the Netherlands', which is in turn partially recycled by Mom, in line 3 and even more in line 5. Thus, rather than characterizing the exchange as merely highly repetitive, we suggest that Mom and Benjamin are enacting and experiencing being attuned to each other through the activation of affinities between their utterances, achieving what Du Bois refers to as *dialogic resonance* (Du Bois, 2014; Du Bois, Hobson & Hobson, 2014).

In the second part of the extract, Benjamin becomes more engrossed in the map and in imagining circulation of people across European countries, via his own utterances. The trajectories of people are rendered through the use of the *from–to* prepositional couplet. The prosodic and syntactic structure of Benjamin's speech (lines 12 and 16), notably the utterances' cadence and the repetition of lexical constituents across utterances,

determines close connection among those utterances via parallelism. The deployment of polysyndeton – the use of several coordinating conjunctions in close succession ('and' in our extract) – enhances further the tempo of Benjamin's speech. The result is a metrical unfolding of utterances, mesmerizing as poetry can be.

Thus, we have in the lines 12 and 16 an exemplary illustration of 'the temporally unfolding experiential potential of language' (Ochs, 2012, p. 154). Through the non-referential dimension of language – via tempo, assonances, prosodic patterning – motion is experienced. Language envelops Benjamin (and to some extent even the readers of the transcript, we would argue) and moves him along the trajectories that language is tracing on the map. The transportative effect of language on Benjamin is evinced also in his reduced responsiveness. Different from earlier in the sequence, the child proffers only a minimal reply to Mom's query (line 15).

In summary, in this section we have invited enriching with experiential sensibility the way we conceptualize language in autism. Further, we described how this sensibility is embodied in an analytic attention to the sound and form of language, and its significance to conversational participants. We suggest that this perspective can afford deeper understanding of the ways children with autism engage language to experience and relate to the world – the world of others as well as the world proper and more general, beginning from its representation in an Atlas.

Discussion

In this article, we offered a framework for conceptualizing the value of discourse analytic approaches to the study of the verbal communication of children with autism. Our central argument throughout has been that the insights of discourse analytic approaches serve to complexify traditional deficit interpretations of prototypical features of autistic language, such as pronoun atypicality, pragmatic difficulties, echolalia and perseverative language. According to this traditional view, such linguistic behaviors are assumed to be direct manifestations of an underlying neurological condition. While the language use of individuals with autism undoubtedly manifests atypicalities, which may have a neurological basis, discourse analytic approaches illuminate competencies and interactional processes and that are largely invisible in mainstream research employing traditional methods.

With a focus on conversation analysis, our framework consisted of three theoretical premises about language – and their methodological corollaries – that organize discourse analytic approaches to the study of language use. First, we elucidated the idea of language as interactional accomplishment, and we described how this notion entails an attention to the constraining influence, at times limiting, at times facilitative, of the child's interlocutor. We presented a data extract in which a child with autism seems to display a straightforward instance of pronoun avoidance. Our analysis demonstrated that the child's pronoun use was responsive to and partly constrained by his tutor's frame of personal reference – her use of a third person construction and proper names. Second, we described how discourse analytic approaches treat language use as social action, and therefore give attention to the specific sequential context in which utterances appear. To illustrate, we presented a segment in which the off-topic responses of a child with autism seem to typify a pragmatic deficit. We then showed how this seemingly incongruous response demonstrated a sensitivity to the trajectory of the interaction, serving the purpose of diverting the course of action away from a dis-preferred trajectory (eating vegetables). Finally, we articulated the perspective of language as part of experience, and we described how this perspective can be embodied in an analytic attention to the sound and form of language and their significance for speakers and hearers. We analyzed an extract in which a child with autism appears to produce echolalic utterances, at the end of the segment in perseverative fashion. Our analysis found that the child was able to mobilize partial repeats to generate resonance with the utterances of his mother, thereby contributing to and supporting sustained engagement with her. In addition, we observed the child deploy parallelism, and highly cadenced articulation in *reading* an atlas and outlining movement from country to country, thereby creating reverberations across linguistic dimensions.

The potential contribution of discourse analytic approaches is not limited to problematizing deficit-based treatments of language and autism. Beyond offering much needed nuance and caution to mainstream research, discourse analytic approaches have important implications for clinical intervention, raising concern about certain methods and suggesting others that may be more productive. For instance, consider interventions that encourage the child with autism to suppress or replace stereotypical features of autistic language, based on the assumption that these features are communicatively dysfunctional and symptomatic of underlying deficits. Because these

linguistic behaviors can in fact manifest developing sensitivities and efforts to overcome difficulties, as we have discussed, such interventions may represent missed opportunities to build on and scaffold these developing abilities – and may in certain cases be counterproductive.

Applying the insights of discourse analytic approaches to clinical intervention entails more than developing different techniques. It means acting from the assumption that the child's utterances, even those that seem most atypical, are meaningful forms of interaction with the world. To proceed from this assumption is to consider what the child might be doing with language in any given instance – what they're responding to, what course of action they are pursuing or resisting, and what experience they are making available to themselves through language. Indeed, discourse analytic research serves to reframe our vision of the child with autism himself. We come to see the child with autism as what each of us is – a practitioner of social interaction and a maker of meaning.

About the authors

Laura Sterponi is an associate professor at the University of California, Berkeley Institute of Human Development and Graduate School of Education. Laura has developed a research programme that is centrally concerned with the role of language and literacy practices in children's development and education. Her studies have examined communicative practices in both typical and atypical children. Her work on autism aims to illuminate the interactional matrix of key features of autistic communication, such as echolalia and pronominal reversal/avoidance. Her work has been published in *Autism*, *Human Development*, *Discourse Studies*, *Journal of Autism and Developmental Disorders*, *Linguistics & Education* and *Journal of Child Language*.

Kenton de Kirby is a PhD candidate at the University of California, Berkeley Graduate School of Education. His research interests center on human development, both typical and atypical. His publications cover development in diverse contexts, including mathematics education, culture-cognition relations, autism, and language-in-social interaction. His articles have appeared in *Human Development*, *Journal of Cognition and Culture*, *Autism* and *Journal of Autism and Developmental Disorders*, among other journals. His dissertation, for which he received a Spencer/National Academy of Education Fellowship, investigates students' developing participation in a core semiotic practice in academic mathematics.

Notes

1 Among other noteworthy discourse analytic studies attentive to language as interactional accomplishment in autism are Fasulo and Fiore (2007), Stribling, Rae and Dickerson (2009), and Tarplee and Barrow (1999).
2 It is beyond the scope of this article to trace the development of the pragmatic perspective of language, a lineage that – even if cursorily outlined – would need to span across disciplines to include Malinowski's anthropological writing (1923), Wittgenstein's *Philosophical Investigations* (1953) and Austin's speech act theory (1962).
3 Among other noteworthy discourse analytic studies attentive to language as social action in autism are Kremer-Sadlik (2004) and Ochs and Solomon (2010).

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