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UNDERSTANDING CHILDREN'S MENTAL HEALTH CONDITIONS IN THEIR INTERACTIONAL ENVIRONMENT: CONVERSATION ANALYSIS AND AUTISM

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This paper provides a methodological overview of applied conversation analysis, showing how this qualitative approach can contribute to our understanding of social interaction in medical settings and the workings of healthcare institutions. Children's mental health, with a focus on autism, is taken as case in point. We first examine how mental health difficulties can affect interaction but also how interactional dynamics can impact the manifestation of mental conditions. We then survey work on institutional practices devoted to defining children's mental health conditions, notably psychological assessments. Thirdly, we consider the study of consultation and intervention settings. In the paper's final part, we envision new areas within which conversation analysis can be brought to bear not only to deepen our understanding of children's mental suffering but also to enhance the well-being of children and their caregivers.

Key words: Conversation analysis; Children's mental health; Autism; Psychological assessment; Qualitative methods.

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In this paper we present a methodological overview of applied conversation analysis to show the insights that this qualitative approach offers to our understanding of the range of phenomena and entities germane to this special issue, namely social interaction in medical settings and the workings of healthcare institutions. We use children's mental health, with a focus on autism, as a case in point. Besides being an area of study of both authors, children's mental health is a growing concern for healthcare institutions and academic research, driven by the recognition that mental health issues may severely affect the younger members of society and that the incidence of these problems is increasing.[1]

In the following section we provide a concise presentation of conversation analysis (henceforth CA), as research paradigm and methodological approach. Therein, we also discuss briefly how CA has treated interaction with children. The central sections of this paper offer an overview of CA research in three areas relevant to children's mental health. The first is the study of children's communication per se, exploring not only how particular mental health conditions affect speech but also what kind of interactional dynamics are generated around the perceived

mental issue. The second area concerns the psychological assessment as the set of institutional practices devoted to defining children's mental health conditions. The third is the study of consultation and intervention settings, in which professionals interact with children according to different psychological theories and approaches.

Hoping to have demonstrated the significant contribution of CA studies to our understanding of children's mental health, in the final part of the paper we advocate for a greater role of such methodology in medical research. We also envision new areas within which CA can be brought to bear to enhance the well-being of children and their caregivers.

Conversation Analysis

Originated within sociology and nowadays widespread across human and social sciences, CA is a discipline concerned with identifying the mechanisms of social interaction (Sacks, 1992; Sacks, Schegloff, & Jefferson, 1974; Schegloff & Sacks, 1973; for a review of the relation of CA to different disciplines, see Sidnell & Stivers, 2012). Despite its name, CA is not only interested in language but rather in all forms of conduct (e.g., gesture, body posture and movements, facial expression) that individuals mobilize to perform actions in interaction. These actions are the building blocks of *social facts*, such as identities and institutions. In other words, social facts do not preexist the interaction but come into being through interaction. As such they are local and emergent accomplishments.

Conversation analysts are interested in discerning how participants in interaction produce and recognize actions. The analysis is thus rooted in what speakers themselves make of the talk of their fellow interactants. For the parties to the interaction, as well as for the conversation analyst, it is imperative to understand what is accomplished through a bit of conduct, with its compositional features and sequential position.[2]

This focus on participants' perspective and the contexts in which actions are produced is a radical innovation compared to the previous models for the analysis of language, which overwhelmingly looked at sentences in isolation and tried to identify regularity in the way fixed grammatical structures mapped onto action. Contrastingly, CA demonstrated that form alone cannot determine use. For instance, a request can be asked with a sentence in declarative form, that is, a non-interrogative form, and sentences with interrogative form can be used for purposes other than requesting, such as criticizing (Levinson, 1983). The position within a sequence of turns is what makes a certain form apt and its purpose clear. The way the turn at talk is then taken up by the interlocutor reveals how he/she made sense of it. This response becomes a central source of interpretation for the analyst as well. In Sacks et al.'s words (1974):

> [W]hile understandings of other turns' talk are displayed to coparticipants, they are available as well to professional analysts who are thereby afforded a proof criterion (and a search procedure) for the analysis of what a turn's talk is occupied with. Since it is the parties' understandings of prior turns' talk that is relevant to their construction of next turns, it is their understandings that are wanted for analysis. The display of those understandings in the talk of subsequent turns affords [. . .] a proof procedure for professional analysis of prior turns — resources intrinsic to the data themselves. (p. 729)

The early, foundational CA work has provided thorough descriptions of mechanisms by which participants in everyday interaction achieve intersubjectivity, namely align their understand-

ings of what is happening moment-by-moment and fulfill each other's expectations about what is going to happen next. For example, it has revealed that speakers use a variety of techniques to secure a smooth transition between turns, and that turn-beginnings are shaped so as to facilitate preview of what will come next (e.g., Schegloff, 2007; ten Have, 1999). Importantly, it has also identified a range of repair moves that are systematically deployed to handle trouble in understanding talk-in-interaction (e.g., Jefferson, 1974; Schegloff, 1979, 1987, 1997). Indeed, CA has revealed that talk-in-interaction is methodically organized and rigorously ordered, even in the most mundane and casual of occurrences.

The extensive CA knowledge about the functioning of ordinary conversation has been used as benchmark for the study of a variety of institutions and specialized activity settings, including courtrooms (e.g., Atkinson & Drew, 1979), classrooms (e.g., McHoul, 1978), high-technology environments (e.g., Neville, 2004), and medical clinics (e.g., Heath & Luff, 2000; Peräkylä, Antaki, Vehviläinen, & Leudar, 2008). These studies of applied CA have described the routine work of institutions and how members adapt to and/or negotiate subject positions that are distinctive of the specialized context within which they operate (Antaki, 2011; Drew & Heritage, 1992). In addition, comparing practices found in specific institutions or activity settings with analogous ones in ordinary conversation has afforded insights on possible sources of tensions and misunderstandings across contexts (Drew, 2003). CA foundational work has also been brought to bear on the study of atypical communication (e.g., Goodwin, 1995; Local & Wootton, 1995; Wilkinson, 2015).

Unconcerned with the aetiology of communication disorders, conversation analysts have focused on how affected individuals participate to interactional exchanges, discerning with finer granularity their conversational capabilities and difficulties. Furthermore, CA studies of atypical communication have revealed that language impairments do not manifest all the time, but with different frequency or degree of severity in relation to different interactional circumstances. As such, they emerge at least in part as by-product of distinct conversational sequences (e.g., Fasulo & Fiore, 2007; Sterponi & Shankey, 2014; Wootton, 1999).

Conversation analysts have also studied the interaction of and with (typically developing) children, applying to it the same unpresuming gaze they bestow on interaction with adult participants. In other words, what qualifies an interaction as specifically parent-child or child-child is to be found in the features of the interaction itself (Sacks, 1992) and the analysis illustrates how children's position and status are created through interactional practices in the family and other social environments. Furthermore, children's ways of talking and acting in interaction are first and foremost analyzed in relation to the circumstances in which these behaviors manifest, without resorting to developmental explanations that model what a child can and cannot do at each stage of development (Forrester, 2010). This does not mean, however, that conversation analysts haven't been concerned with studying learning processes. Wootton (1997), for instance, has examined the spontaneous verbal interaction of his daughter between 18 and 36 months of age and has documented the emergence of different request forms and reactions of distress in response to failures in being understood.

Wootton has shown that the child identifies and draws on expectations of shared understanding to develop her sense of practical and moral aptness. Whereas cognitive psychologists have looked for the cognitive precursors to children's capacity to take account of the desires of other people and express their own, Wootton suggests that a more fruitful locus of analysis are the publicly available forms of action through which knowledge is expressed.

In the last few years, CA research on children's interaction has extended into infancy (e.g., Berducci, 2010; Rączaszek-Leonardi, Nomikou, & Rohlfing, 2013). It has been long known that infant-caregiver exchanges follow a turn-taking system since the first weeks after birth (Kaye & Brazelton, 1971), and that infants are active participants in routine activities based on a sequential organization (Reddy, 2008; Trevarthen, 1979). By applying CA methodology and terminology to early interactions, researchers are now delineating a continuum between the latter and conversational organization in general, showing how intersubjectivity and the principles of sequentiality begin to be established in the first months of life.

On the whole, CA studies with children show that applying a rigorous analysis to children's spontaneous interaction gives access to their sense-making procedures and sheds light on behaviors that may otherwise seem unjustified and incomprehensible. This also creates a favorable terrain for the study of children with difficulties.

Interactions of Children with Mental Health Conditions

While arguably any kind of mental illness may affect social interaction, CA research has primarily focused on conditions involving language impairment, and above all autism.[3] Difficulties in social interaction and atypical uses of verbal and non-verbal communication are among the core features of autism spectrum disorders. In mainstream autism research, such features are considered manifestation of an underlying impairment residing within the neurological substratum of the affected individual. For example, they have been taken to indicate an impoverished theory of mind (e.g., Baron-Cohen, Leslie & Frith, 1985) and compromised interpersonal perspective taking (e.g., Hobson, 1993).

This deficit-oriented approach typically rests on a view of language as an individual cognitive process. Without denying a neurological basis of autism, CA researchers have broadened this picture by considering dimensions of language that lie beyond the realm of the purely cognitive, that is, the praxiological and the interactional dimensions. Furthermore, they have examined the communication of children with autism in the natural contexts of their everyday lives rather than in the artificial context of a laboratory, where most of autism research has been carried out.

By dismissing an exclusive focus on deficit, CA studies have delineated in great detail the pragmatic capacities as well as difficulties of children with autism, unearthing previously unrecognized resourcefulness on the part of the affected child. In addition, by focusing on spontaneously occurring activities in their natural settings, CA scholars have shown that those contexts are multilayered and consequential, that is they can be structured in many different ways, which may differentially affect the child's participation and communicative performance.

CA work on autism echolalia offers an exemplary illustration of the analytic purchase of an approach focused on position and composition of talk-in-interaction. Echolalia, broadly defined as the repetition of the speech of self or others, is one of the defining features of autism and one that has been traditionally conceived of as an automatic behavior with dubious communicative function.

Wootton's studies of echoing, both immediate (Local & Wootton, 1995) and delayed (Wootton, 1999), have revealed the interactional significance and context sensitivity of repetitive talk in autism. Through a sophisticated phonetic and sequential analysis of immediate echoes, Local and Wootton (1995) have demonstrated that even the most functionally opaque form of repetition, which they called *unusual echolalia*, not only presented distinctive linguistic, rhyth-

mic, and prosodic characteristics but also tended to occur in response to specific interactional moves, that is, parents' questions which were difficult to understand or proffer an answer to. By being produced in specific places within distinct courses of action, even those echoes that seemed unambiguously "parasitic and autonomic" and were routinely treated by the interlocutors as "empty and non-meaningful" (p. 178) no longer could be assumed to be indiscriminate automatic reactions. In fact, Local and Wootton suggest that unusual echoes might be "a first way of dealing with a question" (p. 179).

Similarly, Wootton's case study (1999) of delayed echoing showed that the child's echoes were highly synchronized with surrounding talk, thus demonstrating that he was closely monitoring the behavior of his interlocutors. Specifically, echoes occurred at moments when the child's interlocutors had indicated their intention to end the interaction. In addition, Wootton's analysis revealed the systematic ways in which the child uttered his echoes with distinctive wording and prosodic features. In other words, the child constructed his delayed echoes to be perceived by his interlocutors as significantly different from his communicative talk. Thus, while delayed echoes in Wootton's focal child represented a significant and non-communicative preoccupation, they nevertheless indicated contextual and interactional sensitivity.

In a case study of spontaneous interaction between a three-year-old autistic child and his mother, Tarplee and Barrow (1999) found that the child used delayed echoing, specifically utterances from a cartoon video, in a sequence's initial position (rather than in response to his mother's prompt) and systematically accompanied the echoic utterances with a gaze toward his mother. In addition to trying to obtain a response from his interlocutor, the child preferred to use these delayed echoes to elicit a specific *kind* of response, namely as an exact repetition of the echo itself: when the mother failed to provide such a reply, the child did not attend to her response and recycled his opening echo until she offered an exact repetition. In Tarplee and Barrow's study, delayed echoing thus emerged as a resource the child could use to engage the interlocutor within a specific kind of sequence, that is, child-initiated reciprocal echoing. Albeit such sequences were confined to scripted and formulaic utterances, they produced sustained and synchronic dyadic exchanges. Furthermore, Tarplee and Barrow observed that the child's mother herself deployed cartoon echoes to retrieve her son from states of abstraction and detachment from interactional concerns. The mother solicited echoic responses from her child and treated them as appropriate and communicative.[4]

We draw on our own data to offer a more direct illustration of what an analysis of compositional and sequential features of utterances can reveal about echoes in interaction. In Extract 1, Aaron, a five years and 10 months old boy with high-functioning autism, is playing with his mother on the parents' bed. At the bottom of the bed lays a small blanket where the family dog Yachi is allowed to sit and rest. We shall observe in this stretch of interaction that repetition by both the child and his mom affords *progressivity*, namely a well-paced flow of turns between interactants (see Sterponi & Fasulo, 2010, for a more extended discussion of repetition and progressivity as referred to this extract and other segments of interaction between Aaron and Mom; for transcription symbols see the Appendix).

Extract 1: "Or else"

1 Mom: [OH MY GO:SH. LOOK what you did
((with mock terrified voice))
2 Aaron: Hehe [heh hehe hehuhe ((laughs))

3	Mom:		[YOU GOT ON THE BAD BED ((tickling Aaron))
4	Aaron:		Hehe hiih ((rolling on bed))
5	Mom:		You're gonna get bug bites. From Yachi.
6	Aaron:	→	He ↑huhu ((laughs)) (.) or else?
7	Mom:		Or e:lse you're gonna be covered in bug bites ((tickling Aaron's bare legs))
8	Aaron:		Hehe hehu hehu ((laughs))
9			no seat on the [bug bed,
10	Mom:		[Yach- Yachi's bug blanket.
11	Aaron:	→	I'll sit on Yachi's bug bed or else?
12	Mom:		You're gonna get covered with bug bites. ((tickling Aaron's legs))
13	Aaron:		Ha ha ha ha hu ha ((laughs with mouth on pillow))
14			you'll be covered in bug bites.
15	Mom:		Yeah.

In Line 6, Aaron produces one of his characteristic echoes, the question "or else," in response to Mom's playful scary scenario. The question gives the floor back to her and acts as an invitation to go on playing. Mom takes up the invitation and continues with a variant of the former playful threat (Line 7). The boy laughs again and starts proffering a kind of prohibition (Line 9), which Mom joins and completes in overlap (Line 10). Aaron picks up her words to construct a future event, to which he attaches again the question "or else" (Line 11). The formulaic question appears effective one more time in obtaining that his mother adds to the play: she tickles Aaron and reiterates the bug line, making him laugh and repeat her threat (Lines 13-14).

In this brief sequence, we thus observe a child clearly engaged in the interaction and successful in mobilizing the communicative resources at his disposal to contribute to the exchange and steer it in a direction of his preference. More specifically, the echo *or else* has the advantage of all questions, that is, it gives the floor back to the interlocutor while having one's turn in the interaction done (Sacks et al., 1974). A question like "or else" is general enough as to be fit for use in a wide variety of conversational contexts, and as to make possible a range of responses, including jokes and invention in a complaisant interlocutor. Thus, while the child's formulaic, repetitive contributions are evidence of limited communicative resources and a proclivity to sameness, our analysis shows that they are deployed effectively, fostering moments of meaningful attunement between mother and child.

Undoubtedly, focusing on the functional aspects of children's atypical communication can illuminate its orderliness and contribute to its intelligibility. Wootton (2002) poses the question of whether interactional research can provide independent explanations for the characteristics of a condition, different from those provided by deficit-oriented approaches. While this may only be ascertained in the future through prolonged and concerted efforts, research is already mapping alternative language structures and advancing hypotheses on how interactional problems can generate cumulative effects in children's competence across the developmental trajectory. For example, Wootton himself suggests that the observed scarcity of initiations (conversational moves that open a new sequence) in "pragmatically unusual" children deprives them of the information that can be gained through repairs and other type of responses about the adequacy of

their turns. The atypically low frequency of initiatives, whichever the cause, Wootton argues, may determine the more severe language impairments observed at later stages while they are most often (mis)interpreted as directly caused by neurophysiological anomalies. In other words, exploring impaired communication in interaction and comparing atypical children behavior with that of their typical counterparts — the comparative method being central to the CA approach — can enhance our understanding of the nature of children's difficulties and help us devise compensatory strategies that can address the impoverished communicative experience children may suffer from. Furthermore, looking at children and caregivers' interaction is useful for identifying ways of supporting children's abilities. The mother we have just seen interacting with Aaron, for example, demonstrated good practices in letting go of linguistic norms in the production of turns and using language as an instrument for play, mirroring the son's utterances and building up on his echoic contributions in a way that promoted his participation.

Interaction between Children and Professionals During Psychological Assessment Procedures

Mental health and illness are hugely complex domains of knowledge and practice, incessantly subject of debate within and beyond the medical sphere (Karim, 2015). While there is general consensus that mental illnesses are undeniable conditions — involving disturbances of thought, experience, and emotion, serious enough to cause functional impairment in affected individuals — identification and description of the behaviors labeled as symptomatic of mental illness are complicated, often controversial, enterprises. No less complicated and controversial, needless to say, is the way mental illnesses are classified, that is, which conditions get classified as mental illnesses rather than normal conditions, and, among those psychopathological conditions, how they are grouped together into different kinds. A case in point is the recent disappearance from the Diagnostic and Statistical Manual of Mental Disorders (DSM 5) of the Asperger syndrome, now subsumed under the broader diagnostic category of autism.

No matter how tenuous or solid we might consider the basis of current diagnostic classification of mental illnesses, it is clear that receiving a psychopathological diagnosis is a seriously consequential event, for better or for worse. In the case of children, a diagnosis sets adults' expectations — parents', educators', therapists' — on what the children can achieve and determines decisions about treatment and/or school placement, with significant impact on their daily lives.

Conversation analysts have devoted significant effort to the study of diagnostic procedures (O'Reilly, Karim, Stafford, & Hutchby, 2014) and psychological assessments as *interactional events* (see studies described in the following). An interview, an assessment, and an experimental task, are interpersonal situations no less than ordinary interactions, albeit of specific kinds. Precisely because they are social events and yet arguably rather peculiar ones, especially for a child, we cannot assume that the subject has a clear understanding of what is expected of him/her in the given assessment situation or that his/her understanding is in line with what the interviewer/tester/experimenter expects.

In a recent essay on autistic language, Sterponi, de Kirby, and Shankey (2015) have argued that the methodologies often employed in mainstream research on Autistic Spectrum Disorder (ASD) fail to take into account the interactional context of the child's utterances, leading po-

tentially to erroneous conclusions. For instance, they observe that a few studies of autistic language are based on interview data: in these studies the child with autism is introduced to a researcher, with whom most often the child is unfamiliar and who poses him a number of questions, one after the other. The authors point out that nature of this type of interaction and the kind of questions the researcher asks, however, are not taken into account in the analysis of the subjects' answers. As an illustration they consider interview data from Baltaxe (1977), an important study on pragmatic deficits in adolescents with autism. The following interview extracts are presented by Baltaxe as illustration of the way the adolescent subjects in her study tended to provide "vague" and "depersonalized" answers:

> *Q*: What are you planning for? *A*: Just looking ahead in the future for all I care.
> *Q*: Is that what you would do when you get married? *A*: Yes, that's exactly what people would do when they get married. (p. 178)

Sterponi and colleagues (2015) argue that while the answers here above cannot be considered *specific* or *personal*, they seem nevertheless rather appropriate, considering that the subjects had no prior acquaintance with the interviewer (greater intimacy might have generated more detailed and personalized answers), that the interview was scripted, and most crucially that the questions being asked were vague too or certainly not so specific to the interviewees as individual persons (presumably in most cases the adolescents with autism in the study were not projecting themselves as getting married in the near future).

The authors conclude citing the CA maxim "little questions get little answers" (Heritage & Raymond, 2012) and arguing that such maxim can be extended to a range of other attributes of the question-answer pair, notably vague questions get vague answers, impersonal questions get impersonal answers. Where traditional autism scholars looking at such abbreviated, vague, or impersonal answers would see evidence of deficit, we thus can appreciate an alignment of the answer to the nature of the question posed (Sterponi et al., 2015).

Close analysis of the question-answer pairs is also at the core of Maynard's (2005) investigation of how, in a psychological assessment context, subjects, in his case children with autism, "make sense of the questions being asked" (p. 500). Maynard analyzed the subtest "what do you do when" of the Brigance Diagnostic Inventory of Early Development (Brigance, 1978) and compared its question-answer sequences to similar sequences in ordinary conversation. The questions in this subtest require giving solutions to hypothetical problematic scenarios. In Extract 2 we show an extract (abridged from Maynard, 2005, pp. 515-516), which involves Tony (TO), a five-year-old autistic boy and a clinician (CL):

Extract 2: "What do you do when"

1	CL:	What do you do when you're hungry?
2		(1.4)
3	TO:	You eat.
4	CL:	Okay. What do you do when you're sleepy.
5		(1.0)
6	TO:	Reh- (0.8) you res:::t:s.
7	CL:	What do you do when you're col:d.
8		(1.5)
9	TO:	And den you .hh and den you (1.4) and den you gets::

10 fwo::zen.
11 (0.2)
12 CL: Y:e::::ah.

The child's first and second answers (Lines 3 and 6 respectively) are correct, but he gets the third (Line 9) wrong: instead of providing a solution Tony depicts a possible consequence of being cold. Rather than dismissing the answer as irrelevant, as the Brigance test booklet would suggest (thus likely symptomatic of autistic impairment in central coherence), Maynard examines the response as a conversational turn, identifying conversational practices in which such turns are ordinarily produced. He observes that, in ordinary talk-in-interaction, hypothetical problems of the kind the Brigance subtest proposes are most frequently posed through "what do you do if" formulations. In ordinary talk, *when* is more commonly used than *if* to request information about events already experienced by the recipient. Tony's *wrong* answer, differently from the correct ones, presents the "and then" preface — a common linguistic device for introducing new events in storytelling. In other words, Tony establishes a *narrative tie* between the question and his answer. As Maynard points out, we can thus recognize in the child's answer an understanding of the question in its most ordinary use. Tony is thus operating methodically, according to narrative mode. This analysis does not deny a peculiarity in the way the child responds. At the same time, it offers intelligibility to erroneous test answers, displaying orderliness and logic in them. The method of comparing instances of language use across atypical and typical interaction also emerges here as helpful in identifying subtle points of continuity and discordance in the practices of children with difficulties and their typical counterparts.

Close analysis of how interviews are conducted and tests administered has also revealed that the deployment of these evaluative technologies is never strictly uniform but it always inevitably brings about variation that may have an impact on the assessment results (Antaki, 1999; Maynard, Houtkoop-Steenstra, Schaeffer, & van der Zouwen, 2002; Rapley & Antaki, 1996). Maynard and Marlaire (1992) have documented the *interactional substrate* upon which assessments rest, showing the difficulties in maintaining standardized procedures and how interactional circumstances might cause erroneous answers. For example, in analyzing professionals delivering a subtest of the Woodcock-Johnson Psychoeducational Battery (Woodcock & Johnson, 1977), Maynard and Marlaire observed that cues about the correctness of the answers were common despite an explicit instruction to the contrary. In an assessment situation, the authors argued, such involuntary feedback, and the fact that children generally monitor practitioners' reaction after producing an answer, can create carry-over effects across different test trials, and also induce discouragement after failure, compromising the test's validity. Carry-over effects are discussed by the authors in terms of "learning in the midst of the test" (p.193): while tests are supposed to measure pre-existing abilities, a good deal of learning seem to happen at the time of the examination itself.

Analysis of Consultations and Intervention Settings

Concern with children's mental health has not only motivated the study of the aetiology of developmental psychopathologies but also the design of treatments and the investigation of their effectiveness at alleviating symptoms and removing the illness. Since much of the interven-

tion on mental conditions, farmaceutical remedies aside, centers around talk, it is not surprising that CA research has applied itself to the investigation of therapeutic settings. Whereas the study of psychological interventions with adults is well established within CA (e.g., Bysouth, 2012; Peräkylä, 2008, 2012; but see Davis, 1986; Edwards, 1995; and Sacks, 1992 for earlier studies), the investigation of these settings with children as patients is a more recent pursuit (Danby, Butler, & Emmison, 2009; Hepburn & Potter, 2010; Hutchby, 2007, 2010; O'Reilly, 2008).[5]

Analyzing communication with children in a psychotherapeutic context implies dealing with the fact that children rarely go into counselling or therapy on their own initiative. Differently from studies on psychotherapy with adults, therefore, it cannot be assumed that children are engaging with the therapeutic process as such, when talking or not talking to professionals (and usually co-present parents). In a way, though, this makes the investigation of such situations all the more relevant, as researchers are exploring how children's status in therapy is accomplished and how professionals implicate the child in their domain of practice.

In family therapy settings research has shown that children's position is doubly weakened by being a child and being imputed a learning or mental health difficulty (Aronsson & Cederborg, 1996). O'Reilly (2008) found that in such setting, clinicians do not orient to the child's speaking rights in the same way as they do for adults, as exemplified in the lack of acknowledgements or apologies when they interrupt them. Aronsson and Cederborg (1994) suggested that "what could be called a disentangling of voices is an important part of therapeutic work, in that the therapist orchestrates talk in ways which lead to the separation or disentangling of voices, sorting out who speaks for whom or who talks through whom" (p. 368).

Psychological interventions are often based on ideas about communication which are not grounded in empirical observations. For instance, Fasulo and Fiore (2007) have analyzed therapists-children interaction in a center for the treatment of social deficits associated with ASD, finding that, in engaging affected children in conversation with the goal of strengthening their communicative skills, the therapists often disregarded fundamental characteristics of everyday conversational exchanges, notably tellability, granularity, and sequential orientation. In restricting the topic of conversation to already known matters, setting the level of detail in the dialogue to a simplified level and ignoring courses of actions launched by the young patients, the therapists did not recognize full communicative capabilities to their interlocutors. In the following extract (from Fasulo & Fiore, 2007, p. 243), Marco, a 13-year-old boy with high-functioning autism, is trying to tell the therapist a story about some sharks he has seen at an exhibition, while the goal of the therapist (Anna) is to make him produce numerous turns in quick succession:

Extract 3 "How many sharks?"

1	Anna:	→	>Quanti erano?<
			>How many were they?<
2	Marco:		ME- eh, squali sono due.
			U- uh, sharks are two.
3	Anna:	→	Due. ma quanto erano grandi?
			Two. but how big were they?
4			(1.2) ((Marco looks down, then to Anna))
5	Anna:	→	Eh::? così?
			Uh::? *this big*? ((extending arms))

6		(0.8) ((Anna stays in the position))
7	Marco:	.H non somiglia allo squalo martello ohh:::
		.H it did not look like hammer shark uh:::
8		squalo di: ah spada (non era)
		shark of: it (*was not*) *swordfish*
9	Anna:	No:: ascolta Marco.
		No:: *listen Marco*.
10		era grande coSI':? questo squalo
		was it THis: big? *this shark*
11		o era più grande?
		or was it bigger? ((shows size with hands))
12	Marco:	Lo squalo? e e non lo so
		The shark? *well I don't know*
13		(0.8)

Drawing on Marco's fascination toward sea life, the therapist attempts to engage him in a conversation on the topic. She does this by asking very basic questions about sharks (Lines 1, 3, and 5) rather than posing more open ended questions. This format is closer to the question-answer sequences of didactic exchanges than to a genuine conversation. Marco responds unenthusiastically (Line 2) and gives signs of low engagement by looking down and not answering (Line 4). When Marco tries to get into a description of the particular species of shark by excluding other types of big fishes (Lines 7 and 8), he is stopped and corrected ("no listen Marco," Line 9) and then again addressed a simple yes/no question about the size of the shark. Marco's reply (Line 12) displays his frustration: the conjunction "e" ("and") in Italian functions as oppositional marker and the epistemic claim, "I don't know," indicates that the line of inquiry pursued by the therapist is at a dead end.[6]

In the exchange above, as in others observed by Fasulo and Fiore (2007), the therapists were working toward the intervention goal of bringing the children with ASD to master the turn-taking system, goal also pursued through card and board games. In the context of story-telling, however, asking many questions can halt the development of the narrative and be perceived as disruptive by the narrator. Furthermore, in the extract above, it is noticeable that the therapist questions are set too low in terms of granularity (i.e., in CA, the level of expertise or detail participants speak at; Schegloff, 2000); her questions are too coarse and simple given Marco's competence on sea life. A natural comparison was offered to the authors when, at the end of the activity, Marco raised his hand and asked Anna if he could tell her his story again. Here's the conclusion of this second episode.

Extract 4: "Sharks beat them all"

1	Anna:	C'erano dei video.fi- dei fil[ma:ti.
		There were some videos.fi- some fi[*l:ms*.
2	Marco:	[SEnti,
		[*LISten*,
3		gli squali MAngiano le >tartarughe.<
		sharks EAt >turtles.<

4	Anna →	Sì.	
		Yes.	
5	→	(0.8)	
6	Marco	E perché i squali li rompe i:, gu:,	
		And because sharks break them the:, *she*:,	
7		<gu-s-ci> di::, ta.> tartaruga<.	
		<*sh-e-lls*> *of*:: *tu*.>*turtle*.<	
8	Anna:	Il ↓guscio.	
		The ↓*shell*.	
9	Marco:	Il gu-	
		The sh-	
10	Giulio:	Il ↑gu:scio.	
		The ↑*sh*:*ell*.	
11	Marco:	S::i. La mangiava lo squalo.alla tartaruga.	
		Y::*es*. *the shark ate the turtle*.	
12	Anna: →	Mh.	
13	Marco:	Oh::, Anche i delfini battono.	
		Oh::, *even dolphins they can beat*.	
14	Anna: →	Sì.	
		Yes ((nodding))	
15	→	(0.6)	
16	Marco:	Tutti.	
		Everyone.	
17	Anna:	Pure gli uomini.	
		Even men.	
18	Marco:	Pure uomini.	
		Even men.	

Having completed the training schedule, Anna lets Marco tell the story in his own terms and enacts the natural behavior of a story-telling recipient (Sacks, 1992): she remains silent when the story is ongoing (Lines 5 and 15), utters *continuers* after significant points (Lines 12 and 14), and collaborates to the story conclusion about the power of sharks against all their enemies. She only intervenes with a word suggestion (Line 8) when Marco shows difficulty in pronouncing it; the fact that the other young patient that sees this therapist with Marco utters the word "shell" at that point (Line 10) shows that this is an "organic," that is, spontaneous and supportive contribution that also display the audience's understanding of the narrator.

This second, more satisfactory exchange is evidence that the child valued his therapist as an interlocutor and is willing to engage in articulate discoursive contributions. The intervention agenda, however, following perhaps a too narrow conception of what a succesful conversation looks like, had initially jeopardized the opportunity for a mutually rewarding — and potentially skill enhancing — interaction.

Children with autism's opportunities for displays of sociality and experiences of intersubjectivity in therapeutic settings are also the focus of Solomon's (2015) comparative study of a psychological interview in a mental health clinic, and an animal-assisted activity in a child's

neighborhood. Solomon shows the distinctive affordances that *being with* therapy animals provides to children with autism, notably opportunities of *being social* through sensory modalities and opportunities to initiate actions of care. In Solomon's own words, "companion animals generate particularly configured interactional substrates within which they are reliably responsive to the child's behavior and may become an object of an action carried out by him or her (e.g., the child lifts up the animal or places the animal in his or her lap, or on the ground, etc.)" (p. 338). Such an interactional substrate, Solomon remarks, differs from the children's everyday contexts, in which they are usually acted upon by others. It differs also from the interactions that Solomon observed in the psychological testing session, "within which only a very limited range of social actions count as 'social'" (p. 332) and the child's attempts to engage with her mother and the therapist are "subtly 'glossed over' and dismissed" (p. 330).

Concluding Remarks

In this paper we have considered the contribution of conversation analytic research to children's mental health. Our review has shown that detailed analysis of interactions can offer insights into how a condition might develop its manifestations in the course of a child's life, in and through interactional mechanisms. While not denying the existence of neurological bases to mental conditions, CA studies have challenged the deficit perspective, which predominates in medical discourse, and illuminated competencies and interactional processes and that are largely invisible in mainstream research employing traditional methods.

When considering the workings of healthcare institutions, notably psychological assessments and intervention programs, CA has shed light on the mechanisms that produce definitions of children and their mental health conditions in allegedly objective ways. CA studies have also offered critical examinations of clinical intervention, raising concern about certain methods and suggesting others that may be more productive.

While the contribution of CA to children's mental health is already significant, we believe that there is still much that CA can offer to this domain of research and practice: there are several conditions and settings that are yet to be examined and stronger relationships between CA researchers and children's mental health professionals to be built.[7] A better understanding of mental illnesses and conditions as they manifest and change in interactional environments could help promoting healthy psychological development and improving assessment and intervention.

Notes

1. Disorders affecting children include anxiety disorders, attention deficit hyperactivity disorder, post-traumatic stress disorder, autism spectrum disorders, depression, bipolar disorders, eating disorders, and schizophrenia (U.S. Department of Health and Human Services, National Institutes of Health, National Institute of Mental Health, 2009).
2. In CA, composition refers to the design of turns with their constructional units, from words to syntactically more elaborate clauses. Position refers to where turns are situated in sequences, with respect to preceding and following turns (Schegloff, 2007).
3. See however, Tarlin, Perkins, and Stojanovik (2006) for a study of interaction of children with Williams syndrome, and Peskett and Wootton (1985) for children with Down syndrome.
4. For additional CA studies of echolalia, see Dobbison, Perkins, and Boucher, 2003; Sterponi & Shankey, 2014; Stribling, Rae, and Dickerson, 2007.

5. The research conversation analysts were not the first to produce d</label>detailed analysis of psychotherapy sessions involving children. Important work had been carried out in the 1950s by the interdisciplinary group of the Palo Alto School, aiming to understand communication around psychopathological conditions and to train professionals (Bateson, 1972). The method led to a revolutionary theory about the genesis of psychoses as adaptation to dysfunctional communicative environment. Another important concept with regard to children's mental health which emerged from the Bateson group, was the idea of the child as symptom-bearer, namely a carrier of the problems of the family that the child pathology would hide from sight (Bateson, Jackson, Haley, & Weakland, 1956).
6. For children answering "I don't know" as resistance, see Hutchby, 2002.
7. McCabe and associates' work on mental health issues in adults shows the fruitfulness of such relationship (McCabe, Khanom, Bailey, & Priebe, 2013; McCabe, Leudar, & Antaki, 2004).

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APPENDIX

TRANSCRIPTION SYMBOLS

:	Colon(s): Extended or stretched sound.
_	Underlining: Vocalic emphasis.
(.)	Micropause: Brief pause of less than (0.2).
(1.2)	Timed pause: Intervals occurring within and between same or different speaker's utterances in tenths of seconds.
(( ))	Double parentheses: Contextual information.
(don't/won't)	Single parentheses: Transcriptionist doubt (best guess) or (guess/other guess).
.	Period: Falling vocal pitch.
?	Question marks: Rising vocal pitch.
!	Exclamation points: Animated speech tone.
WORD	Caps: Extreme loudness compared to surrounding talk.
[	Brackets: Marks the beginning point at which current talk is overlapped by other talk.
↓↑	Arrows: Pitch resets; marked rising and falling shifts in intonation.
=	Equal signs: Latching of contiguous utterances, with no interval or overlap.
° °	Degree signs: A passage of talk noticeably softer than surrounding talk.
> <	Less than/Greater than signs: Portions of an utterance delivered at a pace noticeably quicker (> <) or slower (< >) than surrounding talk.
-	Hyphens: Halting, abrupt cut off of sound or word.
.hhh	Audible inbreaths.
h h	Audible outbreaths from such events as laughter, or sigh.
wo(h)rd(h)	Outhbreaths within words.
→	Lines which are most relevant for the analysis.