

自閉症スペクトラムの青年に対する他者修復開始

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要旨

本研究では自閉症スペクトラム障がいと診断された2名の青年がそれぞれ他者によって開始された修復にいかにして対処するのかを会話分析の手法を用いて検証する。本研究で使用したデータは17歳の自閉症を持つ日本人の青年と療育者との会話と15歳の自閉症を持つオーストラリア人の青年と療育者の会話の2種類で合計約10時間である。

分析の結果、両青年の相互行為上の困難が結果的に療育者からの修復開始を生じさせており、彼等の語用論的能力の問題が顕著になった。その一方で、オーストラリア人の自閉症を持つ青年に関しては療育者のニーズを理解して、療育者からの修復を巧みに対処する場面も時折見られた。また本稿では、日本人の自閉症を持つ青年と療育者との会話において、療育者が青年の言語使用の誤りを正す行為が見られ、療育者が「教育」ということに志向して相互行為を行っている様子が垣間見られた。この研究は自閉症を持つ人の相互行為能力に関してさらなる理解に繋がることが期待される。

キーワード：会話分析、他者開始修復、相互行為能力、自閉症スペクトラム

Abstract

This conversation analytic paper explores how adolescents diagnosed with Autism Spectrum Disorder (ASD) deal with conversational repair initiated by others. The data used in this study were collected in two different contexts and are approximately 10 hours of naturally occurring conversation. The first dataset, collected in Japan, consists of interactions between a mother and her 17-year-old son with ASD. The second dataset, collected in Australia, is based on interactions between a mother and her 15-year-old son with ASD. The analysis revealed that

mothers responded to both adolescents' communicative infelicities by repair initiation and through the repair sequences they manifested difficulties designing their talk for their recipients. Moreover, unlike the Japanese adolescent, the Australian adolescent at times successfully completed repair. Furthermore, this paper observed the mother's behavior in correcting the language of the Japanese adolescent, which demonstrated her orientation toward teaching. This study contributes to our understanding of pragmatic competence of people with ASD.

Other-Initiated Repair in Interaction with Adolescents with Autism Spectrum Disorder

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Keywords: Conversation Analysis, Other-Initiated Repair,
Interactional Competence, Autism Spectrum Disorder

Introduction

This study examines, by using the framework of Conversation Analysis (CA), how adolescents diagnosed with Autism Spectrum Disorder (ASD) manage repair initiated by others in interaction.

ASD is a range of mental disorders of the neurodevelopmental type that begin in childhood and persist throughout adulthood. The Japanese Ministry of Health, Labor and Welfare reports that the prevalence of ASD is approximately one out of every 100 children in Japan, with about four times more males diagnosed than females. According to the DSM-V (Diagnostic and Statistical Manual of Mental Disorder, 5th Edition) (American Psychiatric Association, 2013), individuals with ASD have problems and difficulties in various social contexts, such as a lack of understanding and awareness of others' emotions and feelings. In addition, those diagnosed with ASD have been reported to have unusual thought

patterns and physical behaviors, which include making repetitive physical movements, for example hand tapping and body twisting. Moreover, they are known to set routines of behavior, which, when broken, lead to confusion. The most salient features of ASD are communicative disorders, the symptoms differing from one person to another. Some people with ASD have the ability to use language, whereas others remain completely nonverbal (Volden & Phillips, 2010). Even when syntax appears normal on the surface, individuals with ASD generally display a disorder in understanding pragmatic aspects of language in social interaction (Land, 2000; Tager-Flusberg, 2004).

Background

ASD and Pragmatic Competence

Recently, a significant amount of research has focused on the interaction of people diagnosed with ASD. Many researchers have stated that one of the most striking features of people with ASD is that they have marked difficulties with pragmatic language skills in social interaction.

Kanner (1946) was the first to point out the pragmatic language disorder. He noted in his clinical case reports that the language children with autism had been described as peculiar and inappropriate in mundane conversation. Even now, many researchers have conducted research that support Kanner's report. For example, Tager-Flusberg (1996) discussed language and communication disabilities observed in people with ASD within the framework of the 'theory of mind' hypothesis, which posits that they had severe difficulties with comprehending

other people's actions during interaction with others. Moreover, Botting and Conti-Ramsden (2003) examined three groups of children with communication disorder by using a series of psycholinguistic markers and mentioned that they appear to have poor understanding of functional communication, including irrelevant turn-taking, limited conversation topics, abrupt topic shifts, and a tendency to provide too much or too little information. In addition, Distinctive features of people with ASD have been reported that they have problems with initiating conversation, maintaining ongoing topics, and responding to others' repair initiation appropriately (Tager-Flusberg & Anderson, 1991; Baltaxe, 1997).

The ability to respond to repair initiation is an essential aspect of pragmatic behavior in a social context. Baltaxe (1977), in her research on the pragmatic competence of adolescents with ASD, reported that their communicative failures concerning repair were observed frequently. Paul and Cohen (1984) demonstrated that people with ASD less frequently carry out repair in their conversation than people with intellectual disabilities without having ASD. Moreover, Keen (2005) observed six mother-child interactions at home to investigate the types of repairs used by children with ASD. The results suggested that the children merely used the repetition when they responded to their mothers' repair initiation and some of their attempts at self-initiated repair often failed even when they identified problematic utterances.

This paper expands on the research outlined above by employing CA methods to analyze how adolescents with ASD manage repair initiated by others when they interact with their mothers.

Conversation Analysis

Conversation Analysis (CA) was inspired by Erving Goffman's approach to interaction (Goffman, 1963, 1964, 1967) and Harold Garfinkel's ethnomethodology (Garfinkel, 1967). It was developed in the late 1960s through the collaboration of Harvey Sacks, Emanuel Schegloff, and Gail Jefferson (Sacks, Schegloff, & Jefferson, 1974). CA is an approach to the study of social interaction and talk-in-interaction, and the methodology focuses on revealing participant's orientation to making sense of interaction, an orientation that is embodied in the detail of their talk and other conduct. Previous CA studies have provided accounts of basic organizations underlying everyday interaction, including turn-taking, sequence organization, and repair organization. Among them, the following section briefly describes the organization of repair as it is the focus of this study.

Organization of Repair

The organization of repair in naturally occurring conversation was first defined by Schegloff, Jefferson, and Sacks (1977). The phenomenon deals with a wide range of problems in talk. It consists of a set of practices to address problems of speaking, hearing or understanding, (Schegloff, 2007). Repair is likely to be considered as correction of errors or mistakes but is not limited to errors or mistakes. Therefore, the term 'repair' in CA indicates the overall phenomenon of dealing with problematic items in talk, and a repairable or a trouble source indicates the item in talk that needs to be repaired (Schegloff, Sacks, & Jefferson, 1977; Liddicoat, 2011).

Repair may be initiated by the speaker of the problematic talk (self-

initiated repair) or it may be initiated by the other speaker (other-initiated repair). In addition, the repair may be accomplished by the speaker of the problematic talk (self-repair) or by another speaker (other-repair). In combination, these possibilities allow four types of possible repair trajectories: (a) self-initiated self-repair, (b) self-initiated other-repair, (c) other-initiated self-repair, and (d) other-initiated other-repair.

In the following, I will review other-initiated repair as it is relevant to the current study. The following examples, (1) and (2), illustrate the two types of other-initiated repair, those in which the repair is carried out by the speaker of the trouble source (other-initiated self-repair) and those carried out by a recipient (other-initiated other-repair). Extract (1) is an example of other-initiated self-repair.

(1) [GTS: II: 2: 54, Schegloff, Jefferson, & Sacks, 1977, p. 377]

01 Ken: 'E likes that waider over there,

02 Al : Wait-er?

03 Ken: Waitress, sorry,

04 Al : 'At's bedder,

In this extract, Al initiates repair by saying "Wait-er?" but only locates the trouble source. He leaves the opportunity to carry out the repair to Ken. Ken accomplishes the repair of his previous utterance by rephrasing "waiter" to "waitress". Presented below is an example of other-initiated other-repair.

(2) [DA: 2, Schegloff, Jefferson, & Sacks, 1977, p. 369]

01 B: How long y' gonna be here?

02 A: Uh-no too long. Uh just til uh Monday.

03 B: Til-oh yih mean like a week f'm tomorrow.

04 A: Yah.

Extract (2) shows an example in which B initiates repair for resolving a problem of understanding A's utterance "till uh Monday." Following A's utterance that includes a trouble source (line 2), B initiates and carries out repair by displaying a possible understanding of the problematic part of A's turn.

Many other-initiated repairs occur in the next turn of the trouble source. The next turn is the first structurally determined place for other-initiated repair, which is called Next Turn Repair Initiation (Schegloff et al., 1977). Speakers employ various devices to initiate repair in the next turn. One common way for recipients to initiate repair is to use open-class repair initiators (Drew, 1997) (e. g., "what?", "pardon?", and "huh?") which is the weakest way to specify a repairable. An open class-repair initiator indicates that the recipient has some trouble with the prior turn, but it does not specify the trouble (e. g., a particular word or one of hearing, understanding). Extract (3) below illustrates use of the open-class repair initiator "what?".

(3) [CF: 6963, Benjamin & Mazeland, 2013, p. 2]

01 JEN: [((laughing))]

02 SAL: [is your man a medical] student?

03 JEN : . hhh what?

04 SAL : is your man a medical student?

05 JEN : he's a dental student.

In Extract (3), line 3, JEN publicly displays some difficulty with hearing and initiates repair with the open-class repair initiator “what?”. SAL accomplishes a repair by repeating her own previous turn. Other examples of open-class repair initiators are “Huh?” or “Pardon?”

As is the case with English conversation, in Japanese conversation, the next turn is the first structurally determined place for other-initiated repair. The extract below illustrates how the recipient initiates repair in Japanese by employing an open-class repair initiator (Drew, 1997).

(4) [FM: 01: 25–42, Hayashi, 2009, p. 2104]

((S and T are discussing S's sister who grew up to be a naïve and dependent person))

01 T : *kibishii- ie- oya ga.*

Strict family parent SP

“Are they strict- your family- your parents?”

02 S : *YAA sonna n ja nai kedomo=*

no such N CP NEG but

“No it's not like that, but”

03 T : *=un.*

Mmhm.

04 S : *soda- chicchai toki kara moo sono: (1.5)*

gro- small when since EMP uh

“Since when she was small, uh:” (1.5)

05 *DOCCHI MO:* *hatsumago* *yatta n ya.*

either also first grandchild was N CP.

“She was the first grandchild for both.”

06 (1.0)

07 T: *eh?* =

08 S: =oyaji no hoo mo ohukuro no ho [o (0.3) k] ara mo.

father LK side also mother LK side from also

“From both my father’s side and my mother’s side”

09 T: []

[AAAAaan.]

Oh::: . .

10 (.)

11 T: [oon.]

Mhm.

[]

12 S: [*yappa*] *moo* (1.5) *NANKA tte yutta tokini honnin ga*

as. expected EMP something QT said when the person SP

“You know, like (1.5) when something happened, since before she started”

13 *NAKidasu maeni moo mawari kara WA! too koo te ga...*

begin, to cry before EMP around from MIN QT like nand SP

to cry, everyone around her rushed to offer help...”

In line 1, T asks if S’s parents are strict. S denies it and starts to describe S’s sister’s childhood environment. In line 7, T initiates repair by

uttering “*eh?*”. S clarifies a potentially problematic utterance “DOCCHI MO: (both)” in his prior turn in line 5. In other words, S shows his understanding that the repair-initiator “*eh*” registers T’s encounter with trouble understanding S’s prior turn. In line 8, S accomplishes repair by explaining what “DOCCHI MO: (both)” means. S displays acceptance by saying “*AAAAaaan. (Oh:::::::)*” in overlap with S’s utterance.

The extracts illustrated so far delineates cases of the use of the open-class repair initiator as a device to initiate repair. However, these cases only point out that there is a problem in the prior turn but do not indicate what the problem is. This means that they are very weak ways to initiate repair. A more specific way of repair initiation consists of a question word and a partial repeat of the speaker’s utterance. Here is one example.

(5) [BH: 1A: 14, Schegloff, Jefferson, & Sacks, 1977, p. 368]

01 Sue : Yeah we used to live, on the highway, too. And when we first

02 moved up there, it was terrible sleeping because all these

03 semis were going by at night.

04 ((short silence))

05 Bob: All the what?

06 Sue : Semis

07 Bob: Oh

Sue tells Bob that she used to have difficulty sleeping “it was terrible sleeping because all these semis were going by at night?” After a short silence, in line 5, Bob initiates repair with a question word “what” and

adds the word “all” that Sue uttered in her previous turn. In line 6, Sue carries out the repair by saying the word “Semis” following “all”.

Next, I will introduce an example in Japanese. In Japanese conversation, the subject and object are frequently omitted. It can oftentimes be a problem in conversation. In that case, the repair can be initiated by identifying whether the problem is the subject or the object by adding the case particles to question words “what” and “who” (Hayashi & Hayano, 2013). In Extract (6), the repair is initiated by adding the case particle “ga” to the question word “what.”

(6) [Jun-clip2]

01 M: *kyou taihen dattanda yo.*

Today hard PST IP

“Today was hard.”

02 J : *nani ga*

what SUB

“What?”

03 (2.0)

04 M: e, *Miri chan ga.*

Name TL SUB

“Miri chan.”

In this case, M begins to talk about what happened that day. Then J initiates the repair by adding the case particle “ga” to the question word “what”. By doing that, it indicates the trouble lies in the missing subject. M says “*Miri chan ga*” to supply a subject to her previous utterance

“*kyou taihen dattanda yo*. (Today was hard.)” and thus accomplishes the repair. As seen in this example, it is possible to clarify the trouble source by adding the case particle rather than using only question words when initiating repair.

In what follows, I will introduce how repair is initiated through repetition of problematic items. Repeating the speaker’s utterance from a prior turn is more specific to identify the problematic item rather than using question words. The following cases show that recipients repeat a part of the speaker’s prior turn to initiate repair.

(7) [GTS: 3: 24, Schegloff, Jefferson, & Sacks, 1977, p. 370]

01 A: Hey the first time they stopped me from selling cigarettes was

02 this morning.

03 (1.0)

04 B: From selling cigarettes?

05 A: buying cigarettes. They [said uh

In this extract, the trouble source is a problem of word selection. B finds something problematic in A’s utterance “from selling cigarettes”. After one second of silence, B initiates repair in line 4 by repeating A’s utterance “From selling cigarettes?” while also adding stress and rising intonation. At this point, A notices that A’s previous utterance has a problem and corrects it by replacing “selling” with “buying”. In the next extracts, I present an example in which participants in Japanese conversation initiate repair by repeating the trouble source of the prior turn.

(8) [Kota-Kumi: 07: 176–183, Takagi, Hosoda, & Morita, 2016, p. 210]

01 Kumi : *sonnani taishita koto janai desu yo.*

such that big thing NEG COP IP

02 sonnani anmari nagaku yatte miseru youna monja nai
hhihhih

such not really long do show such thing NEG

“That is no big deal.”

03 Kouta: *basho wa?*

place TOP

“Where is the place?”

04 Kumi : *ouji de. ouji tooi desho shikamo.*

ouji at ouji far TAG besides

“At Uji. Uji is far away, isn’t it? Besides.”

05 Kouta: *ouji?*

ouji

“Uji?”

06 Kumi : *ouji tooi desu yo.*

ouji far COP IP

“Uji is far away.”

In this extract, Kumi and Kouta are talking about a theatrical recital in which Kumi is participating. In line 3, Kouta asks Kumi for the location of the recital. Kumi says “*ouji de*. (At Uji)” and then Kumi again says the name of the place “Uji”, “*Ouji tooi desho shikamo* (Uji is far away, isn’t it? Besides)”. In line 5, Kouta initiates repair by repeating the name of the place “*Ouji?*”. And in line 6, Kumi confirms Kouta’s hearing and

thereby carries out the repair by saying “*ouji tooi desu yo*. (Ouji is far away)”.

The following extracts specify problematic utterances more precisely by indicating a possible understanding in the prior turn.

(9) [HS: FN, Schegloff, Jefferson, & Sacks, 1977, p. 369]

01 A: I have a: - cousin teaches there.

02 D: Where.

03 A: Uh: , Columbia.

04 D: Columbia?

05 A: Uh huh.

06 D: You mean Manhattan?

08 A: No. Uh big university. Isn't that in Columbia?

09 D: Oh in Colombia.

10 A: Yeah.

In this extract, the repair initiations in lines 4 and 6 indicate that the trouble source is A's utterance “Columbia”. D initiates a repair with a repeat of A's utterance “Columbia?” However, A does not take his utterance as a problem. D upgrades the repair initiation by offering a possible understanding “You mean Manhattan?”. In line 8, A rejects D's possible understanding and then accomplishes a repair by stating that the university is in Columbia instead of Columbia University in Manhattan. The next extract illustrates how a Japanese speaker initiates repair by offering a possible understanding.

(10) [Kushida, Hiramoto, & Hayashi, 2017]

01 Kanako : *e, donokurai sunde ta no:?*

eh, how long live PST IP

"How long have you lived?"

02 Miki : *Chiba ni?*

Chiba in

"In Chiba?"

03 Kanako : *u [: n.*

yeah

"Yeah."

04 Tomoyo: [*u: n.*

yeah

"Yeah"

05 Miki : *atashi ga chu.: gaku no ichinensei no*

I SUB junior high school student GEN first year GEN

06 *toki ni [kita kara: ,]*

time in come PST because

"Because I came when I was in the first year of
junior high school.

07 Tomoyo: [*a kekkou nagai*] *ja nai.*

ah quite long CP TAG

"Isn't it quite long?"

In the extract above, Kanako asks how long Miki lived. However, since Kana's utterance does not specify a location, Miki initiates repair with a possible understanding, "*Chiba ni?* (In Chiba?)". In line 3, Kanako accom-

plishes repair by saying "u: n. (Yeah.)".

Thus far, I have described other-initiated repair in both English and Japanese conversation accomplished with (a) open-class repair initiators, (b) repetition of a part of the speaker's prior turn, and (c) offering of a possible understanding. All these techniques for initiating repair are deployed in the turn next to the trouble source, and these techniques provide the speaker of the trouble source with an opportunity to carry out repair.

In what follows, as an example of a setting in which there is asymmetry in language competence, I will introduce how a teacher and a student deal with repair in a classroom. MacHoul (1990) found that other-initiated self-repair is the dominant repair trajectory in classroom interaction. From an educational perspective, the teacher withholds the "expected" answer and provides the student opportunities to produce the answer. The following extract exhibits teacher orientation to a pedagogical focus, which is to prompt the students to produce an accurate answer in a complete sentence.

(11) [Seedhouse, 2004, p. 144]

(T: teacher, L: learner)

01 T: right, the cup is on top of the box. ((T moves cup))

02 now, where is the cup?

03 L: in the box.

04 T: the cup is (.) ?

05 L: in the box.

06 T: the cup is in (.) ?

07 L : the cup is in the box.

08 T : right, very good, the cup is in the box.

In line 1 and 2, the teacher asks the learner "where is the cup?" The learner responds, "in the box." The learner's response is linguistically correct. However, the teacher initiates repair in line 4 "the cup is (.) ?" and the learner repeats "in the box." The teacher then initiates repair again by saying "the cup is in". Finally, the teacher stops his utterance without completing it. This teacher practice is referred to as a "designedly incomplete utterance" (DIU) (Koshik, 2002). It has been found that teachers in classroom settings often use this design to facilitate learner response and also to offer an opportunity for learner self-repair. In this sense, the teacher gives space for the learner to self-repair. In line 7, the learner produces the targeted sentence, as shown by the teacher's positive assessment in line 8.

The extract below illustrates classroom interaction between the teacher and students with specific speech and language difficulties.

(12) [Radford, 2010, p. 11]

1 Ch: .. and we took Penny for a walk.

2 T: where did you take her

3 Ch: (1.0) uh:: m

4 T: outside the house you mean

5 Ch: no we went a: all the way down (.) we did.

6 T: down whe: re.

((puzzled look))

- 7 Ch: uh: m (.) to (see/sea) the sea
 8 T: oh ri:ght? it's near the sea is it.
 9 Ch: yeah

In this extract, the student reports some personal news about taking her dog called Penny for a walk. In line 2, the teacher asks the student where she took her dog for a walk. The student pauses and produces "uh:: m", which shows that the student appears to be searching for a response. To assist the student's response, the teacher offers a candidate answer with a potential location in line 4. However, the student rejects it and supplies some information about her walk with a dog, "no we went a: all the way down (.) we did." In line 6, the teacher initiates repair by producing "down whe: re." In response to this, the student answers "to the sea" in line 7. The teacher once accepts the student's answer but initiates repair through the production of a confirmation check in line 8. The student then accomplishes the repair by uttering "yeah".

As mentioned above, other-initiated repair occurs frequently both in regular classrooms and in the special educational support lessons. In contrast, the occurrence of other-repair is infrequent even in the asymmetric interaction. The teachers provide opportunities for students to carry out repair. Therefore, other-initiated repair is a device to prompt student learning in educational settings. However, although the occurrence reported is rare, others may carry out repair (other-initiated other-repair). In the case of other-initiated other-repair, it is usually done in a mitigated form (Seedhouse, 2004; Liddicoat, 2011). The extract below illustrates this point.

(13) [Schegloff, et al., 1977, p. 378]

01 Ben : Lissena pigeons

(0.7)

02 Ellen: [Coo-coo::: coo:::]

03 Bill : [Quail, I think.

04 Ben : oh yeh?

(1.5)

05 Ben : No that's not quail, that's a pigeon.

In line 3, Bill repairs Ben's utterance "pigeons" by rephrasing "quail" and adds "I think.", in order to mitigate the force of the correction. The next extract is a conversation between a native English speaker and a native Japanese speaker in Japanese.

(14) [Toranomom News: 27: 54]

((Kent is an English native speaker, Kaori is a Japanese native speaker.

They are talking about the United States Constitution))

01 Kent : *jitsu wa sore ken (.) kenpou kaisei dairokujyou*
 actually TOP it ken Constitution amendment article 6

02 *de wa shukyou ryou ryou ni =*
 by TOP religion ryou ryou to

03 Kaori: °*riyu*° =
 reason
 "reason"

04 Kent : =*riyu riyu ni shite souiu ano:: koutekina souiu*
 reason reason to do such well public such

05 *position o han handan suru ma kinshi na n desu yo*
 position ACC han judge do uhm prohibit COP N COP IP
 “Article 6 of the Constitutional Amendment prohibits judging
 public position on the grounds of religion.”

As Kent displays a problem producing a word by repeating the word “*ryou*”. Karori carries out repair by producing “*riyu* (reason)” in a quiet voice. In line 4, he uses repetition of the word “*riyu* (reason)” to accept the other-repair. As illustrated in the two extracts above, even if the other-repair occurs, it is done in a mitigated way. It includes markers of uncertainty such as “I think” as in Extract (12) or it is produced in a quiet voice as in Extract (13).

This study explores how a Japanese adolescent and an Australian adolescent diagnosed with ASD deal with repair sequences initiated by others. The analysis furthers our understanding of the pragmatic competence of people with ASD.

Data

The data analyzed for this study were collected in two different contexts. The first set of data was collected in Japan and consists of interaction between a Japanese mother and her 17-year-old son, whose pseudonym here is Ten. Ten was diagnosed with ASD at the age of three by a psychiatrist. He attends a special-needs school, but which is not specialized in education students with ASD. In his class, not only students with ASD but also students with Down’s syndrome and other intellectual dis-

abilities participate. It should be noted, most of the teachers in the special-needs schools in Japan are not qualified and trained for students with these disabilities. They only have general qualifications as secondary school teachers. The content of the lesson depends on the degree of disability of each student. They are also given social training for the future, such as cooking training, agricultural training, and pottery training. The second set of data was collected in Australia and consists of interaction between an Australian mother and her 15-year-old son, whose pseudonym here is Duke. Duke was diagnosed with ASD at the age of three by the combination of a speech therapist, a pediatrician, and a psychologist. He attends a special-needs school, but unlike those in Japan, it has an educational curriculum specializing in teaching students with ASD. For example, each student has their own educational plan and has a qualified schoolteacher who is trained in the TEACHEE (Treatment and Education of Autistic and Communication Handicapped Children) method. Both sets of interactions shown here were video-recorded by the mothers, the Japanese mother and the Australian mother, during their normal daily routines. The video and audio-recorded data were transcribed using the transcription conventions commonly employed in CA research (Atkinson & Heritage, 1984) (see Appendix for transcription conventions). Prior to the recording, both mothers agreed to the families' participation by signing an informed consent form that explained the purpose of the study and ethical use of the data. The interactions were for the most part recorded in their living rooms and kitchens.

Analysis and Discussion

The analysis explored how the two adolescents, a Japanese adolescent with ASD and an Australian adolescent with ASD, who speak different languages, deal with repair initiated by their mothers. First, I will present instances in which other-initiated repair sequences reveal infelicities in the adolescents' pragmatic production. I will then discuss instances in which the Australian adolescent with ASD manages repair initiation in a way similar to how it is achieved in mundane conversation. At the end, an instance of other-initiated other-repair by the Japanese adolescent, which is rarely seen in mundane interaction, will be presented.

Manifested Infelicities in Production

As mentioned above, some of the salient features of conversation with people diagnosed with ASD is that they are unable to design their utterances for recipients as they change topics abruptly in their conversation. (Tager-Flusberg, 1996; Botting & Conti-Ramsden, 2003). In Extract (5) below, Ten (T) fails to design his response to fit the mother's (M) initiation of repair.

(15) [Cat Park 0: 43]

- 01 M: *doko no kouen ni itta?* =
 where GEN park at go: PST
 "Which park did you go?"
 02 T: =*Neko Kouen.*

cat park

“Cat Park”

03 M: *ha?*

huh

“Huh?”

04 T: *Neko Kouen.*

cat park

“Cat Park”

05 M: ↑ *ahh, Neko Kouen tte aru no*

oh, cat park QT exist Q

“oh, is there such a thing as Cat Park?”

06 T: *a aru.*

exist

“th there is.”

07 (1.0)

08 M: *neko? neko kouen?*

cat cat park

“Cat? Cat Park?”

09 T: *neko kouen.*

cat park

“Cat Park”

10 M: *hu::: n ↑ ehh ↑ doko ni aru no?*

well where at exist Q

“Hmmm, well, where is it?”

11 (3.0)

12 M: *Nenrindou san no chikaku:?*

Name TL GEN near

“Is there near Nenrindou san?”

13 T : *chikaku*.

near

“Near.”

The mother begins a conversation by asking which park Ten went to, “*Doko no Kouen itta?* (Which park did you go?)”. She knows he went to a park for a school event on that day, but she does not know which park he visited. Ten answers “*Neko Kouen*. (Cat Park.)”. Then the mother immediately initiates repair by uttering “*ha?* (Huh?)” in line 3. In line 4, Ten repeats his previous utterance “*Neko Kouen*. (Cat Park.)”. Ten responds to this repair initiation by repeating his previous utterance, which is a form usually employed when the other interactant has a problem of hearing. However, as can be seen in the subsequent interaction, Mother displays surprise and receipts this new information with a change of state token “*ahh* (oh)” (Heritage, 1984) followed by requests for conformation, “*Neko kouen tte aru no?* (Is there such a thing as a Cat Park?)” in line 5. Responding, in line 6, Ten produces “*aru*. (There is.)”, a repeat of the final predicate component of his mother’s question, but he does not elaborate on *Neko Kouen* (Cat Park) and completes his turn; consequently, silence occurs in line 7. In line 8, the mother then manifests her surprise through repeated production of confirmation checks. She seems to try to elicit more information about *Neko Kouen* (Cat Park) from Ten. Yet Ten only repeats “*Neko Kouen*. (Cat Park)”. In line 10, the mother registers receipt of the information with a news-receipt token

“*hu::: n* (Hmmm)”. The mother then launches an “*eh*”-prefaced follow-up question that inquires about the park’s location. As Hayashi (2009) explicated, “*eh*” in Japanese is deployed in a context of surprise and it displays registering of unexpected information conveyed in a preceding turn. Thus, the mother again shows her surprise here. In launching the follow-up question, she employs a Wh-question format, “*doko ni aru no?*” (Where is it?)” As seen in the line 11, Ten displays difficulties answering Wh-questions posed to him. As previous studies have demonstrated, people with ASD tend to have difficulties answering Wh-questions (e. g., Daar, Negrelli, & Dixon, 2015; Goodwin, Fein, & Naigles, 2015; Secan, Egel, & Tilley, 1989). In line 12, the mother redesigns her Wh-question to the format of a polar question “*Nenrindou san no chikaku:?*” (Is there near Nenrindou san?)” Ten then responds with repetition of a final predicate component “*chikaku*. (Near)” Barcon-Cohen (1990) explained that people with ASD have a specific cognitive disorder of ‘mind-blindness,’ which refers to not being able to attribute mental states to other people. In addition, children with ASD have difficulties understanding the point of view or the recognition of others (Williams & Wright, 2004). In other words, Ten’s response to his mother’s repair-initiation shows his difficulty in designing his response for his recipient.

Ten’s infelicity in production is observed not only in the failure to design his utterances to recipients but also in his difficulties in designing his utterance for each interactional context.

(16) [Ojyarumaru 7: 05]

((Ten is watching a TV program called *Ojyarumaru*.)

01 T : *okkii*_ç

big

“big?”

02 M: ° *un?* °

un?

“Hum?”

03 (.)

04 M: <*Ojyarumaru ga::* > ↑ *e, nani ga ookii no?*

Ojyarumaru SUB oh what SUB big Q

“*Ojyarumaru* is, oh what is big?”

05 T : *a-a-ame futteru*

rain falling

“It’s ra, ra, raining.”

Prior to this segment, Ten started to watch a TV program called *Ojyarumaru* and told his mother that *Ojyarumaru* is fun. Ten abruptly says “*okki i*_ç (big?)”. As can be seen from the mother’s subsequent question in line 4, the mother guessed that Ten has asked about the size of *Ojyarumaru*. His mother reported that he tends to focus on particular aspects of objects rather than seeing an object as a whole. This behavior by Ten is supported by many studies. For example, Kanner (1943) described the inability of children with autism to experience things as a whole. Happe and Frith (2006) noted that children with ASD have problems with integrating and processing incoming information. This tendency is termed ‘weak central coherence’ by Frith (1989). In line 2, the mother soon initiates repair employing an open-class repair initiator, “*un?*”

(Hum?)". In line 3, Ten does not respond to her initiation and silence occurs. Then the mother initiates repair to clarify Ten's use of "*okkii* (big?)" by providing a candidate for understanding "*Ojyarumaru ga:: (Ojyarumaru is),*" but she abandons it to complete the question. She then resumes repair with the differently designed question "*nani ga ookii no?* (what is big?)." In line 5, instead of responding to his mother's repair, Ten changes the topic "*a-a-ame futteru.* (It's raining.),", which reveals Ten's difficulties answering a Wh-question. As mentioned above, people with ASD tend to have problems responding to Wh-questions (e. g., Daar, Negrelli, & Dixon, 2015; Goodwin, Fein, & Naigles, 2015; Secan, Egel, & Tilley, 1989).

As shown in this extract, Ten begins his conversation with no preamble. This behavior is responded to by the mother as inappropriate as indicated by her initiation of repair. However, Ten then does not respond to his mother's repair initiation appropriately. Williams and Wright (2004) demonstrated that children with ASD have tendencies to think about the world from their own point of view and focus only on their own needs. That is to say, Ten has trouble with taking into account the perspective of others. This may contribute to his social difficulties. He also shows difficulty in responding to Wh-questions. He shifts topics abruptly instead of answering his mother's question. These two extracts show that Ten's infelicities in production were reflected in his mother's repair initiation.

The extract below illustrates a case in which Duke, an Australian adolescent with ASD, displays some difficulty in designing talk for a recipient as manifested by the recipient's response. As with Extract (16),

Duke's (D) abrupt topic change is followed by his mother's (M) repair initiation.

(17) [Duke 2019 in OZ]

01 M: yes:: I would like you to: prepare for your dinner.

02 Thank you Duke.

03 (1.3)

04 D : I think the tongs are there.

05 M: What sorry ?

06 D : The tongs

07 M: The tongs are in

08 D : dishwasher

The mother's turn opens with a request to Duke to prepare his dinner. "I would like you to: prepare for your dinner. Thank you Duke." There is no response from Duke. Considering that normal turn taking timing is a 0.1 second of silence (Jefferson, 1988), 1.3 seconds may be considered long. After the silence, in line 4, Duke suddenly changes the topic and starts talking about the tongs. "I think the tongs are there". The mother initiates repair by uttering "What sorry?" in line 5. Duke only utters "The tongs". In line 7, the mother produces "the tongs are in," and then stops her utterances without completing it. This mother's practice is similar to a "designedly incomplete utterance (DIU)," which is frequently observed in classroom interaction (Koshik, 2002). In this sense, the mother provides space for Duke to self-repair. In line 8, Duke produces "dishwasher".

As shown in Extract (17), Duke treats the mother's repair initiation

as a problem of not hearing the subject of his utterance, “tongs”. However, the trouble source of the mother’s repair is not the tongs, but where the tongs are. Eventually the mother leads Duke to self-repair the part she had a problem with. This is consistent with findings from mundane conversation in that self-repair predominates over other-initiated and other-repair (Schegloff, Jefferson, & Sacks, 1977). The mother’s repair that occurred in this extract is due to Duke’s abrupt topic shift. Duke then did not reply to the mother’s repair initiation but only repeated the word “the tongs”. In order to provide an opportunity for Duke to self-repair, the mother used a “designedly incomplete utterance (DIU)” in her second repair initiation. Finally, Duke accomplished the repair in a way that his mother found to be appropriate, and indicated by the closing of the repair sequence and the progressivity of the interaction.

Deployment of typical repair practices

Thus far, repair sequences related to the aspects of adolescents with ASD displaying some infelicities in production have been discussed. In contrast, as illustrated below, Duke (D), an adolescent with ASD, may sometimes deal with repair initiation appropriately, as is seen in mundane conversation.

(18) [Duke 2019 in Perth 6: 30]

01 D : mmhm. (.) hm:: m <minecraft educa::tion> on from Fridays

02 M : <hmm. minecra::ft? > =

03 D : =mmhm. I say education (1.0) thing.

04 M : It’s an education thing¿

05 D : yes.

Prior to this segment, the mother asked Duke what he was going to do at school that week. Duke answers “<minecraft educa:: tion> on from Fridays”, with the “minecraft” part in slower than usual speech and also the “education” part with a sound stretch and with emphasis. In line 2, the mother once accepts his response, but she initiates repair with rising intonation “<hmm. minecra:: ft? >”. Although Minecraft is generally an adventure game using blocks, the Minecraft he is talking about is the game designed for educational purposes. The way he carries out repair shows his understanding that his mother took Minecraft to be only a video game. In line 3, he immediately orients to the mother’s possible misunderstanding and produces with emphasis “I say education (1.0) thing.” The mother initiates repair through the production of a confirmation check in line 4, “It’s an education thing;”. Duke then accomplishes the repair by confirming “yes.” As can be seen in this interaction, an adolescent with ASD may sensibly deal with his mother’s repair initiation.

In this extract, the mother’s repair initiation is attributed to her misunderstanding about the word “Minecraft” that referred to the video game Duke played at school. Duke then deals with his mother’s misunderstanding by repeating the word “education.” The repair sequence is advanced through the mother’s confirmation check and completed by Duke’s confirmation. As shown, this repair segment exhibits Duke’s interactional competence of managing other-initiation of repair

Other-initiated other-repair

Recipients may occasionally carry out other-repair on problematic talk. As noted previously, it is rare to find cases of other-initiated repair that lead to other-repair. Typically, if the recipients in the talk have problems such as hearing or understanding, they initiate repair, but they leave the speaker of the trouble source to complete the repair. (Schegloff, 2007). However, Schegloff et. al. (1977) mentioned the possibility that other-repair may occur more frequently in interactions among not-yet-competent speakers.

The following is an example of other-initiated other-repair from interaction between the Japanese adolescent with ASD (Ten) and his mother (M), an interactional sequence which occurs rarely in ordinary conversation. Consider the following extract.

(19) [Chichibu 1: 23]

01 T : *otousan wa ikanai?*

dad TOP go NEG

"Isn't Dad going?"

02 M: ↑ *otousan no kuruma de ikku no,*

dad GEN car by go IP

"We are going by Dad's car."

03 T : *a-a Honda?*

Honda

"Honda?"

04 M: *un. Hon [da no:: Insi] ght.*

yeah. Honda GEN Insight

“yeah. *Honda Insight*.”

05 T : [(.....)] *mukae ni kite kure nai*
 pick up to come receive NEG

“Isn’t Dad picking us up?”

06 M: *mukae ni:: ja naku te, okuttette kureru no.*

pick up to COP NEG and give a ride receive IP

“Dad is not picking us up, but he is giving us a ride.”

07 T : (....) >*kyo*< [(...)]

today

“today”

08 M: [*wakaru*]
 okuttette kureru no

understand give a ride receive IP

“Do you understand? He gives us a ride.”

09 T : *nan nin de*

How person by

“How many people?”

Prior to this segment, Ten and the mother were talking about going to his grandfather’s house on holiday. Ten asks the mother as to whether Dad is going with them “*otousan wa ikanai* (Isn’t Dad going?)”. In line 2, the mother responds to his query “*otousan no kuruma de iku no*, (We are going by Dad’s car.)”. Ten utters “*Honda*” in line 3, then the mother responds to him by adding the name of the car model, *Insight*. Despite the mother’s previous utterance of going by the father’s car, Ten asks his mother “*mukae ni kitekure nai* (Isn’t Dad picking us up?)”. In line 6, the mother utters “*mukaeni::* (pick up) with a sound stretch that noti-

fies the recipient of the possibility of a subsequent repair. The mother then produces “*ja nakute* (Not to pick up)”. Thereby the mother negates Ten’s preceding utterance “*mukae ni kitekure naiç* (Isn’t Dad picking us up?)” and projects that a correction is forthcoming. In the following, the projected correction “*okutte tte kureru no.* (Dad is taking us to the grandfather’s house.)” is produced. Therefore, the trouble source “*mukaeni* (pick up)” is discarded by deploying “*ja nakute,*” which prefaces the prior as incorrect and replaced by the repair solution “*okutte tte kureru no.* (Dad is taking us to the grandfather’s house)”. Hayashi, Hosoda, and Morimoto (2019) found that negating the preceding utterance with *ja nakute* serves to discard it as incorrect and frames the forthcoming utterance as a repair proper. In line 7, Ten appears to be saying something, but it is inaudible. In overlap with the final part of Ten’s utterance, the mother asks more questions to confirm his understanding in line 8. Instead of responding to the mother’s question produced to confirm his understanding, he starts to ask his mother about something else “*nan nin deç* (How many people?)”. Generally, even in interaction among not-yet-competent speakers, a repair recipient regularly displays their agreement or acceptance of the other-repair. Hosoda (2000) demonstrated in her research on other-repair sequences between nonnative and native speakers that a repair recipient’s lack of an agreement or an acceptance seems to be consistent with a lack of recognition or comprehension of the repair. Taking these into consideration, the absence of Ten’s agreement or acceptance appears to show his nonrecognition or incomprehension of the mother’s repair.

As seen in this section, the mother’s preference was for repairing

her son's linguistic infelicities in a way similar to a teacher's correction of student production in a classroom rather than a preference for maintaining the progressivity of the interaction. This mother's preference for accuracy over progressivity of interaction was observed in other instances as well, and will be reported in future research reports.

Conclusion

This paper first illustrated infelicities in production by adolescents diagnosed with ASD as displayed in repair sequences. Similar to the research outlined earlier in this paper, both Ten, a Japanese adolescent with ASD, and Duke, the Australian adolescent with ASD, had difficulties in communicating with their mothers. Specifically, difficulties in designing talk for recipients so that sequential contexts resulted in repair initiation. This paper then examined an instance in which Duke, an Australian adolescent, successfully dealt with repair initiation. Contrary to previous studies, Duke oriented toward what the mother needed to know and completed the repair. Finally, this paper discussed the Japanese mother's practice for correcting her son's misuse of language and her orientation toward teaching.

As previous studies have demonstrated, people with ASD display difficulties with production of pragmatic aspects of language, such as having difficulties understanding the recognition of others and having problems with integrating and processing information appropriately and so forth. In this dataset, infelicities in the production by Ten and Duke became visible through the analysis of repair sequences, which is consistent

with the results of previous research. Conversely, the two participants occasionally displayed some differences in competence regarding a response to repair initiation. While Duke sometimes exhibited his competence by identifying the trouble source when his mother's repair initiation occurred, Ten never succeeded in responding to his mother's repair initiation appropriately. This finding may be attributed to the differences in education in Australia and Japan or the participants' intellectual levels or place on the autism spectrum. In this regards, further studies are called for.

This study focused only on two adolescents diagnosed with ASD and so may not fully grasp the range of characteristics of people with ASD. In future studies, it may be productive to investigate interaction of a greater number of people with ASD, possibly from various age groups and from various cultural backgrounds. By doing so, it will be possible to better comprehend the communicative behaviors of people with ASD.

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Appendix

Transcription conventions

[]	overlapping talk
=	latched utterances
(0.0)	timed pause (in seconds)
(.)	a short pause
::	an extension of a sound or syllable
> <	talk that is faster than surrounding talk
< >	talk that is slower than surrounding talk
°°	a passage of talk that is quieter than surrounding talk
.	fall in intonation
,	continuing intonation
?	rising intonation
¿	rising intonation weaker than a question marker

<u>underline</u>	emphasis
↑	sharp rise
(())	comment by the transcriber

Abbreviations Used in Interlinear Gloss

IP	Interactional particle
P	Other particles
Gen	Genitive
Top	Topic marker
SUB	Subject marker
N	Nominalizer
Tag	Tag-like expressions
Neg	Marks negation
PST	Past
TL	Name