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博士学位論文

「自閉症と診断された青年の語用論的能力の分析
－家族の相互行為における療育者との話題管理と修復－」

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亀井恵里子氏の博士論文「Analysis of Pragmatic Competence of Adolescents Diagnosed With Autism Spectrum Disorder: Topic Management and Repair in Family Interaction With Caregivers」の公刊に際して

亀井恵里子氏の博士論文「Analysis of Pragmatic Competence of Adolescents Diagnosed With Autism Spectrum Disorder: Topic Management and Repair in Family Interaction With Caregivers」が公刊され、ついに多くの人の目に触れることとなった。亀井氏が博士前期課程の頃から共に学びを続けてきた指導教授としては感無量の極みである。亀井氏には博士論文が公刊されたことにより研究人生の終点に着いたのではなく、むしろこれからの研究の出発点にやっと立ったのであるということを心に留め置いていただき、今後より一層研究に従事し研究結果を世の中に普及していただくことを強く望む。

亀井氏の研究では社会的相互行為が困難とされる自閉症スペクトラム障害（ASD）と診断された人々の相互行為能力を探求した。そのため ASD と診断された日本人とオーストラリア人の青年とそれぞれの養育者（母親）の間で行われた自然発生的な会話を約 11 時間録音録画することにより収集し、会話分析の手法を用いて分析した。分析では 2 つの異なる文脈から得られたデータによって、ASD と診断された人が相互行為を行う際に特に困難であると示唆されている領域、話題の管理と修復に焦点を当てた。

話題管理の分析から、ASD と診断された日本人の青年は母親との会話において、定型化された質問を巧みに扱うことで新しい話題を開始していることが明らかになった。その青年は ASD と診断された人にとって課題とされる疑問詞を用いた質問への応答に対して困難を示したものの、そういった質問に対しても定型化された質問を展開することで、母親との会話を維持する能力も示していた。一方、ASD と診断されたオーストラリア人の青年は分離マーカーや継続マーカーを巧みに用いて話題の開始、移行をしていた。また、母親からの依頼を直接的に拒否することを避けるために話題を転換していた。これらの点を考慮すると、日本人とオーストラリア人の青年は、程度に差はあるにせよ、それぞれの相互行為能力を明らかにした。さらに、日本人とオーストラリア人の母親の行為を分析したところ、母親たちは息子との会話を維持するために、質問形式を繰り返して息子から返答を引き出したり、会話への積極的な関与の機会を増やすために命令文を用いたり、息子の発話を繰り返したりしていた。このように、母親たちは自閉症の息子との会話の管理・維持を巧みに行っていることがわかった。

また、この研究では、ASD と診断された日本とオーストラリアの青年が、母親との会話の中で生じた修復連鎖にどのように対処しているかを検討した。親の発話に対する青年たちの修復開始については、日本人の青年は通常母親の発話を確認するために日常会話でよく見られる修復開始を何ら問題なく行なっていたものの、青年が格助詞を誤用したり他者との文脈共有の困難を示したりするなど、語用論的障害が明らかに観られた事例もあった。それに対して、オーストラリア人の青年は、疑問詞を的確に使用する、前置詞に疑問詞を加える、母親の発話を繰り返すなど、さまざまなテクニックを用いることで修復の他者開始を成功させていた。また、日本人の青年と母親との相互行為における母親による他者開始他者修復の連鎖を分析し、母親は相互行為の進行性を維持することよりも、息子の不適切な言葉の使い方を修復することを優先していたことが示された。

これまで、特に日本国内では、自閉症スペクトラム障害（ASD）に関する研究は実験的な研究が中心であり、会話分析を用いた研究は最近ようやく見られ始めたところである。亀井氏の研究はその傾向の先端であると考えられる。今日までに、ASD と診断された日本語母語話者と英語母語話者の両方を比較検証した研究は未だみられず、非常に画期的な研究である。この研究結果は特別支援教育や ASD と診断された子供を持つ親に対して多くのことを示唆できるもので、社会的に非常に意味のあるものである。今後はより多くのデータを検証し、この研究をさらに発展させていただきたい。

2025 年 1 月 7 日

細田　由利

ANALYSIS OF PRAGMATIC COMPETENCE OF ADOLESCENTS DIAGNOSED WITH AUTISM SPECTRUM DISORDER: TOPIC MANAGEMENT AND REPAIR IN FAMILY INTERACTION WITH CAREGIVERS

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DOCTOR OF PHILOSOPHY

by

Eriko Kamei

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ABSTRACT

Analysis of Pragmatic Competence of Adolescents Diagnosed

With Autism Spectrum Disorder:

Topic Management and Repair in Family Interaction With Caregivers

Eriko Kamei

Doctor of Philosophy

Graduate School of Foreign Languages

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Major Advisor: Yuri Hosoda

The primary purpose of this study is to explore the interactional competence of people diagnosed with Autism Spectrum Disorder (ASD), who are considered to have difficulties with social interaction, by analyzing naturally occurring conversations between Japanese and Australian adolescents diagnosed with ASD and their respective caregivers. The analysis of the data from these two divergent contexts focuses on topic management and repair, areas of social interaction which previous research has suggested to be particularly challenging for individuals diagnosed with ASD in their interactions with others. Analysis of the recorded interaction revealed the characteristics and competencies of adolescents diagnosed with ASD during interaction with their caregivers.

The empirical data analyzed for this dissertation are based on approximately 11 hours of audio-video recordings of naturally occurring family conversations collected in Japan and Australia. The researcher transcribed and analyzed the data employing the method of conversation analysis so as to observe how the sequential aspects of the interaction were constructed and accomplished through the participants' perspectives, that is to say the emic perspective, as opposed to attempting to explore predefined research questions or project preconceived notions onto the data. In other words, the phenomena considered in this project

emerged from "unmotivated observation" of the data (Psathas, 1995).

The analysis of topic management revealed that the Japanese adolescent diagnosed with ASD initiated new topics in conversations with his mother by manipulating routinized questions. On the other hand, he exhibited difficulties responding to Wh-questions, which are considered to be challenging for individuals diagnosed with ASD. Yet despite the difficulties in answering Wh-questions, he utilized routinized questions to maintain the conversation.

In the case of the Australian adolescent diagnosed with ASD, he initiated and shifted topics by using disjunctive and continuation markers. Moreover, he endeavored to avoid directly rejecting his mother's requests by adeptly inserting disjunctive markers and shifting topics.

In consideration of these points, as emerged from the data analysis, both the Japanese adolescent and the Australian adolescent manifested their respective interactional competences, although to different degrees.

In addition, the analysis of the interactional practices of the Japanese mother and the Australian mother uncovered several strategies that they marshaled to maintain conversations with their sons diagnosed with ASD. For example, the mothers repeatedly deployed questioning formats to increase their sons' opportunities to participate in the talk. Additionally, the Australian mother utilized imperative sentences and repeated her son's utterances in order to boost his opportunities to respond and to facilitate his active involvement. Thus, these strategies employed by the respective mothers in interaction with their autistic sons were highly effective in managing and maintaining conversation.

Moreover, this study examined how Japanese and Australian adolescents diagnosed with ASD coped with the interactional repair that occurred in conversations with their mothers across the following four types of repair: (a) self-initiated self-repair by the adolescents, (b) repair other-initiated by the adolescents and self-repaired by the mothers, (c) repair other-initiated by the mothers and self-repaired by the adolescents, and (d) repair other-initiated and

other-repaired by the mothers. The analysis of the repair that was initiated and completed by the adolescents revealed that both adolescents carried out self-initiated self-repair without manifesting any appreciable difficulties.

Concerning repair that was other-initiated by the adolescents and self-repaired by the mothers, as for the Japanese adolescent, he initiated repair as a confirmation check of his mother's utterances without any significant problems. In another sequential instance, however, his pragmatic disorder does become apparent. His misuse of a case particle and inability to share context with others, as shown in the analysis, are consistent with the general characteristics of people diagnosed with ASD, who are considered to have difficulty with pragmatic language use and social communication. On the other hand, the Australian adolescent successfully accomplished other-initiation of repair by employing various techniques, including utilization of question words, addition of question forms to prepositions, and repetition of his mother's previous utterances. The results of the analysis uncovered his ability to appropriately address problems that arose during conversations with his mother.

Next, this dissertation analyzed repair that was other-initiated by the mothers and self-repaired by the adolescents. The Japanese and Australian adolescents displayed difficulties in designing talk for their recipients, which occasionally resulted in repair sequences. This study presents analysis of an instance in which the Australian adolescent deals with his mother's repair initiation. Contrary to previous research that discusses difficulties for people diagnosed with ASD to design their talk for others, he oriented toward what the mother needed to know and successfully completed the repair.

Another phenomenon of repair analyzed in this dissertation was repair that is other-initiated and other-repaired by the Japanese mother in interaction with her son. The analysis highlights her preference for repairing her son's inappropriate word usage in a way similar to a teacher's correction of a student's production in a classroom, thus creating an insertion repair sequence rather than opting for maintenance of the progressivity of the interaction.

The findings of this dissertation offer several implications for research on special education for students diagnosed with ASD and research on interventions for children diagnosed with ASD. Foremost among the application of the findings is the need for teachers in educational settings to recognize the seemingly inappropriate utterances and behaviors of students diagnosed with ASD as communicative techniques that contain various meanings rather than simply viewing them as problematic. Furthermore, the mothers' practices analyzed in this research, particularly their strategies for achieving and maintaining fruitful conversations with their sons diagnosed with ASD (e.g., how to elicit responses from their sons, how to increase their sons' opportunities to talk, how to facilitate their sons' active involvement in the interaction, and how to maintain conversations with their sons), provide valuable recommendations for intervention research.

要旨

Analysis of Pragmatic Competence of Adolescents Diagnosed With Autism Spectrum Disorder: Topic Management and Repair in Family Interaction With Caregivers

自閉症と診断された青年の語用論的能力の分析

－家族の相互行為における療育者との話題管理と修復－

本研究の第一の目的は、社会的相互行為が困難とされる自閉症スペクトラム障害（ASD）と診断された人々の相互行為能力を探求することである。そのため ASD と診断された日本人とオーストラリア人の青年とそれぞれの養育者の間で自然発生的な会話を分析する。分析では 2 つの異なる文脈から得られたデータによって、ASD と診断された人が相互行為を行う際に特に困難であると示唆されている領域、話題の管理と修復に焦点を当てる。記録された相互行為の分析により、ASD と診断された青年が養育者と相互行為を行う際の特徴や能力を明らかにする。

本論文のために分析された実証的データは、日本とオーストラリアの家族の自然発生的な会話を約 11 時間のオーディオ・ビデオ録画したものである。研究者はあらかじめ定義された研究課題を探求しようとするのではなく、参加者の相互行為の連鎖をどのように達成されたかを観察するために、会話分析の視点から事例を書き起こし分析した。すなわち、研究者はデータの検討と観察をすることで浮かび上がった上記 2 つの現象を分析するに至った。

話題管理の分析から、ASD と診断された日本人の青年は母親との会話において、定型化された質問を巧みに扱うことで新しい話題を開始していることが明らかになった。その一方で、その青年は ASD と診断された人にとって課題とされる疑問詞を用いた質問への応答に対して困難を示した。しかしながら、そういった質問に対しても定型化された質問を展開することで、母親との会話を維持する能力も示していた。

ASD と診断されたオーストラリア人の青年は分離マーカーや継続マーカーを巧みに用いて話題の開始、移行をしていた。また、母親からの依頼を直接的に拒否することを避けるために話題を転換していた。これらの点を考慮すると、日本人とオーストラリア人の青年は、程度に差はあるにせよ、それ

ぞれの相互行為能力を明らかにした。

さらに、日本人とオーストラリア人の母親の行為を分析したところ、ASD と診断された息子との会話を維持するために、いくつかの戦略を用いていることがわかった。例えば、質問形式を繰り返し用いることで、母親たちは息子から返答を引き出していた。また、オーストラリアの母親は、息子からの応答を引き出したり、会話への積極的な関与の機会を増やすために、命令文を用いたり、息子の発話を繰り返したりしていた。このように、自閉症の息子との相互行為において用いられたこれらの戦略は、会話を管理・維持する上で非常に効果的であった。

さらに、本研究では、ASD と診断された日本とオーストラリアの青年が、母親との会話の中で生じた修復にどのように対処しているかを、(a)青年の自己開始自己修復、(b)青年による他者開始修復、(c)母親による他者開始、青年による自己修復、(d)母親による他者開始他者修復の 4 つのタイプの修復を検討した。青年たちによる自己開始自己修復について分析した結果、特別な困難は観察されなかった。

母親の発話に対する青年たちの修復開始について、日本人の青年は、母親の発話を確認するために日常会話でよく見られる修復開始を何ら問題なく行なっていた。しかしながら、別の事例では青年の語用論的障害が明らかになった。格助詞の誤用や他者との文脈共有の困難は語用論的な言語使用や社会的コミュニケーションが難しいとされる ASD と診断された人の特徴と一致していた。一方、オーストラリア人の青年は、疑問詞を的確にしようする、前置詞に疑問詞を加える、母親の発話を繰り返すなど、さまざまなテクニックを用いることで修復の他者開始を成功させていた。この結果から、オーストラリア人の青年は他者との会話で生じた問題を適切に対処する能力を有していることが明らかになった。

次に本論文では、母親によって他者開始され青年たちによって修復が操作された例を分析した。日本人とオーストラリア人の青年は、受け手に合わせた発話をデザインすることが困難であり、その結果、修復連鎖が生じてしまっていた。次にオーストラリア人の青年が母親の修復開始にうまく対処できた事例を検討した。話し相手に合わせて発話をデザインすることが困難であると指摘する先行研究とは異なり、彼は母親のニーズに志向し修復を完了させていた。

本論文で分析した修復のもう一つの現象は、日本人の青年と母親との相互行為における母親の他者

開始他者修復である。分析の結果、母親は相互行為の進行性を維持することよりも、教室で教師が生徒の発話を訂正するように息子の不適切な言葉の使い方を修復することを優先していた。

本論文の結果は、ASD と診断された生徒に対する特別支援教育の研究や、ASD と診断された子どもへの介入に関する研究にいくつかの示唆を与えるものである。例えば、教育現場の教師は、ASD と診断された生徒の不適切とも取られがちな発言や行動を、単に問題視するのではなく、さまざまな意味を含むコミュニケーションの技法として認識する必要があることが示唆された。さらに、本研究で分析された母親たちの行為、特に ASD と診断された息子と会話をする際の彼らの戦略（例えば、息子からどのように応答を引き出すのか、どのように会話を維持するのか）は、介入研究にとって貴重な示唆を与えるかもしれない。

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To my family

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CHAPTER 1

INTRODUCTION

1.1. General Overview

The primary purpose of this study is to examine the interactional competence of people diagnosed with Autism Spectrum Disorder (ASD), who are considered to have problems with social interaction, by meticulously analyzing naturally occurring conversations between both Japanese and Australian adolescents with ASD with their respective caregivers.

There have been many studies that focus on difficulties with social interaction, which is one of the fundamental characteristics of people diagnosed with ASD (Baron-Cohen, 1989; Laugeson, Frankel, Mogil, & Dillon 2009; Klin, Volkmar, & Sparrow, 1992; Rutter, 1983; Tager-Flusberg, 1996). However, there have been only a few studies utilizing conversation analysis to observe the interactions occurring between adolescents diagnosed with ASD and their caregivers. Furthermore, there have been no studies to date comparing and contrasting the interactions between a Japanese adolescent with ASD and an Australian adolescent with ASD.

To better understand the difficulties people diagnosed with ASD face in social settings, it is essential to analyze family interactions, which form the foundation of society. Furthermore, comparing conversations between a Japanese-speaking adolescent diagnosed with ASD and an English-speaking adolescent diagnosed with ASD is essential to determine the competencies and challenges of individuals diagnosed with ASD regardless of language.

The present study documents the family interactions of adolescents diagnosed with ASD and their caregivers in two different nations, Japan and Australia. Using the methodological approach of conversation analysis, this study attempts to examine two characteristics that have been identified as difficulties for individuals diagnosed with ASD in their interactions with others: (a) topic management and (b) interactional repair.

First, I take up topic management, which is considered one of the features that people diagnosed with ASD have difficulty within their interactions with others. Under this phenomenon, three aspects of topic management are discussed: (a) topic initiation, (b) maintaining interaction, and (c) topic shift. The analysis focuses on how Japanese and Australian adolescents diagnosed with ASD manage conversational topics with their respective caregivers. Moreover, the analysis also highlights the strategies deployed by parents as caregivers for maintaining conversations with their sons diagnosed with ASD.

The second phenomenon to be examined through the detailed analysis of interaction in this study is how adolescents diagnosed with ASD, who are considered to have difficulties with pragmatic language use, cope with the interactional repair that occurs in conversations with their caregivers. The analysis discusses the repair practices that emerged in the data from the emic perspectives of the adolescents diagnosed with ASD and from that of their cargivers. In discussing the repair practices, I present them in four categories: (a) adolescents' self-initiated self-repair, (b) adolescents' other-initiated mothers' self-repair, (c) mothers' other-initiated adolescents' self-repair, and (d) mothers' other-initiated mothers' other repair.

The research approach taken in this dissertation is based on the conversation analysis principles of observing data from an a priori perspective. That is, this study endeavors to investigate the sequential aspects of interactions between adolescents diagnosed with ASD and their caregivers as they emerged from the data and were first and foremost understood by the participants themselves in and through their interaction.

1.2. Contributions of the Study

The present study contributes to better social understandings of individuals diagnosed with ASD, who often manifest difficulties in communicating. In particular, this study contributes to two areas of ASD research: (a) studies on special needs education for students diagnosed with ASD, and (b) studies on early intervention for children diagnosed with ASD.

First, previous studies on special education for students diagnosed with ASD have often focused on developing strategies to reduce disability-related challenges in daily living and learning. Addressing the underlying problem of difficulty communicating with others, which is a central challenge for people diagnosed with ASD, has not always been a priority. However, simple development of strategies is not sufficient for acquisition of appropriate social behaviors. This study highlights the importance of paying close attention to the characteristics of individuals diagnosed with ASD. By observing the interactions between Japanese and Australian adolescents diagnosed with ASD and their respective caregivers, this study expands the possibilities for studies on special needs education because it provides a deeper understanding of the difficulties faced by people diagnosed with ASD, such as social interactions and pragmatic language use.

Second, in recent years, early intervention studies, such as studies on behavioral interventions, studies on developmental interventions, and studies on parent-mediated interventions, have been the focus of attention in autism research. Among them, studies on developmental interventions and studies on parent-mediated interventions focus on improving communication skills and social interaction. Considering those points, insights gained from the current study, which involves a detailed analysis of naturally occurring interactions between Japanese and Australian adolescents diagnosed with ASD and their respective caregivers, contribute to research on developmental interventions and studies on parent-mediated interventions. In addition, through analyzing spontaneous conversations between adolescents diagnosed with ASD and their respective caregivers in two countries, Japan and Australia, this dissertation contributes to promoting social understanding regarding the competencies and challenges individuals diagnosed with ASD exhibit in social interactions.

1.3. Organization of the Study

The present study is organized in seven chapters. Chapter 1 introduces the study and specifies the main purpose. Additionally, this chapter discusses some of the contributions of this research and details the organization of the chapters.

Chapter 2 summarizes the current state of education for students diagnosed with ASD. Since this study focuses on analyzing interactions both between Japanese and Australian adolescents diagnosed with ASD and their respective caregivers, I respectively describe the educational contexts and problems found in Japan and Australia.

Chapter 3 outlines the relevant literature considered in the present study. The first section offers an introduction and overview of conversation analysis and its fundamental aspects, such as (a) turn-taking organization, (b) sequence organization, and (c) preference organization. Next, topic management, including topic initiation and topic shift, and repair organization, such as self-initiated repair and other-initiated repair, which constitute the main focuses of this study, are outlined in sections 2 and 3, respectively. In the fourth section of Chapter 3, I briefly describe the currently known characteristics of people diagnosed with ASD, followed by a review of the ASD research related to this study. In the final section, I classify and discuss the effectiveness of ASD research that utilizes CA into three categories: (a) examining conversations between individuals diagnosed with ASD and their conversation partners, and identifying specific communication difficulties found within, (b) providing insight into how people diagnosed with ASD use communication strategies to compensate for their social difficulties, and (c) ascertaining optimum interventions for children diagnosed with ASD.

Chapter 4 is concerned with the research methodology employed in this dissertation. The chapter first offers an overview of the data that are analyzed in this study, the method of data collection, and the participants in this research project. Then, the chapter also explains the ethical issues considered. Finally, the reliability, validity, and objectivity of the

methodology utilized in the present study are discussed.

This study focuses on two aspects of the interaction between adolescents diagnosed with ASD and their respective mothers: (a) topic management and (b) repair organization. These aspects are covered in Chapter 5 and Chapter 6.

Chapter 5 begins with the analysis of topic management, such as topic initiation and topic shift by adolescents diagnosed with ASD. It then examines in detail what strategies parental caregivers employ to maintain conversations with their sons diagnosed with ASD. Chapter 6 continues the analysis of the data. In particular, Chapter 6 discusses four phenomena of repair sequences: (a) adolescents' self-initiation of repair, (b) adolescents' other-initiation of repair, (c) mothers' other-initiated adolescents' self-repair, and (d) mother's other-initiated other-repair.

Finally, Chapter 7 concludes this study by summarizing its main findings, addressing implications and ramifications related to the findings, and discussing directions for future research.

CHAPTER 2

EDUCATION FOR STUDENTS DIAGNOSED WITH AUTISM SPECTRUM DISORDER

2.1. Introduction

Recently, the number of children diagnosed with ASD has been increasing in the world. According to World Health Organization, it is estimated that approximately 1 out of every 160 children worldwide has ASD. An extensive range of interventions has been found to optimize the development, health, well-being, and life quality of those diagnosed with ASD. Moreover, these interventions have been demonstrated to be effective throughout their lives.

Because of the increase of people diagnosed with ASD, the United Nations General Assembly adopted the Convention on the Rights of Persons with Disabilities in 2006. As of January 5, 2022, 184 countries and territories have signed on as parties to the convention (Cabinet Office of Japan, 2022).

Article 24 of this convention (a) ensures that persons with disabilities are allowed to develop to the maximum extent of their mental and physical potential, (b) promotes inclusive education, a system in which persons with and without disabilities learn together with the aim of participating effectively in society, and (c) protects persons with disabilities from being excluded from the general education system and guarantees that "reasonable accommodations" be provided to these individuals (Ministry of Foreign Affairs of Japan, 2019).

To bring attention to the plight of those with ASD, in 2007 the United Nations General Assembly adopted a resolution to designate April 2 as World Autism Awareness Day in relation to Convention on the Rights of Persons with Disabilities, and efforts to facilitate understanding of autism have been launched (United Nations Department of Economic and Social Affairs, 2014).

Accordingly, in the 2000s, as various initiatives deepened understanding of people diagnosed with ASD, many countries have shown an increasing interest in education for children with ASD. Among the various countries focusing on education for children diagnosed with ASD, the following sections present the current state of education in Japan and Australia.

2.2. Education for Students Diagnosed With Autism Spectrum Disorder in Japan

The cumulative cases of autism in Japan is higher than in other countries, with an occurrence rate of 2.75% in 5-year-olds (Sasayama, Kuge, Toibana, & Honda, 2021). In addition, the Autism Society Japan reports that the percentage of people diagnosed with ASD in Japan is estimated to be 360,00.

According to a survey by the Ministry of Education, Culture, Sports, Science and Technology of Japan in 2019, there are 9.89 million children receiving compulsory education, of which 6.5% may have developmental disabilities and may need special supports.

Following the Japanese government's signing of the Convention on the Rights of Persons with Disabilities adopted by the United Nations General Assembly in 2006, and its ratification in 2014 (Ministry of Foreign Affairs of Japan, 2019), the education of children with disabilities shifted from special education separated from typically developing children to inclusive education. In order to facilitate inclusive education in actual educational settings, efforts have been underway to build diverse and flexible systems to provide instructions that meet individual needs while pursuing learning in the same setting for children with and without disabilities (Miyadera, Ishida, Hosokawa, Kitajima, & Manabe, 2018).

Currently, special needs education in Japan can be divided into four categories depending on the severity of the child's disability: (a) special needs schools that provide highly specialized education for children with relatively severe disabilities, (b) special needs classes that organize classes for each type of disability and provide education tailored to each

child, (c) classes that provide special instruction according to disability at some time while taking most of the classes in regular classes, (d) regular classes that provide instruction based on the regular curriculum while taking individual disabilities into consideration (Child Development Support Study Group, 2022).

In general, school attendance counseling is provided by the municipal board of education under the guidance of the Ministry of Education, Culture, Sports, Science and Technology of Japan. A physical and speech examination is conducted in May or June of the child's senior year of the kindergarten or nursery school, and if a detailed examination is deemed necessary, an individual examination (intelligence test and social skills test) and behavioral observation visit to the kindergarten or nursery schools are conducted in July or September. School placement is then decided based on the opinions of pedagogical experts and the request of the child and parents (Child Development Support Study Group, 2022). However, the reality is that placement does not always meet needs and desires of the child and parents.

In the following section, I discuss the current conditions and some significant issues surrounding inclusive education.

2.3. Issues in Inclusive Education in Japan

In Section 2, it was seen that after the adoption of the Convention of the Rights of Persons with Disabilities at the United Nations General Assembly, education for children with disabilities came under review and was given greater scrutiny worldwide. In Japan similar trends could be observed. This was manifested in changes that produced a more inclusive educational system. The purpose of an inclusive educational system is to enable children with disabilities to reach their maximum capability by learning along with children with and without disabilities. An important part of this system is known as "reasonable accommodation." It refers to adjustments or modifications to remove difficulties or barriers

that people with disabilities encounter in society. However, there are several functional problems with this system. This will be elucidated below.

As mentioned in Section 2.2 above, special needs education in Japan is divided into four categories depending on the severity of the child's disability. Yet, there are children with ASD, learning disabilities, and attention deficit hyperactive disorder, who are in the same class with typically developing children. This situation often leads to difficulties for classroom teachers to provide adequate guidance (Tamanaha & Tanaka, 2019). Furthermore, regional disparities in special needs education have risen, with financial and teacher quality problems arising in some regions, resulting in significant educational disparities. For example, in areas with strong financial resources, support workers are employed in addition to regular teachers to assist students with disabilities by providing personal assistance and learning guidance, while in areas with limited financial resources it is difficult to utilize support workers. Consequently, disparities occur in support for children. In addition, although it is assumed that decisions about schooling should reflect the requests of the children and their parents, in fact, their opinions are often not taken into consideration. This issue is also seen to be caused by regional disparities (Shibata, 2017). In addition, the mother of one boy with intellectual disability said that her son was enrolled in a special needs class at a local public school as she had requested. Yet, her son's class included not only students with ASD, but also students with other disabilities, such as attention deficit hyperactivity disorder and so forth. She noted that he did not receive attentive care and that the reason for this was the lack of qualified teachers to deal with students with disabilities and the lack of teachers with specialized knowledge (anonymous informant #1, personal communication, March 31, 2022). The other mother of a girl diagnosed with ASD who has speech difficulties, also reported that she had to arrange counseling from a speech therapist at her own expense since a special needs class was ineffective in improving her daughter's speech (anonymous informant #2, personal communication, October 2, 2020). Both informants stated that any additional

support outside of schooling, such as speech therapy, occupational therapy, and so on, would be income-based but, in most cases, would be an entirely out-of-pocket payment, placing an especially heavy financial burden on the parents. They also suggested that parents would be less burdened if they received more detailed assistance within the school, tailored to the students' specific disabilities.

The purpose of inclusive education is to enable students with and without disabilities to receive an equal education in the same learning environment. Yet, there are still numerous challenges that need to be met, such as the lack of qualified teachers with specialized knowledge, disparities between regions, and so on.

2.4. Education for Students Diagnosed With Autism Spectrum Disorder in Australia

The number of people diagnosed with ASD in Australia has seen a significant increase since the turn of the century (Leonard et al., 2010). The Australian Bureau of Statistics (ABS) conducts the Survey of Disability, Ageing and Carers (SDAC) for autism prevalence rates every three years. According to the survey, an estimated 164,000 people in Australia were diagnosed with autism in 2015. This shows an overall prevalence rate of 0.7% or about 1 in 150 people. Therefore, the number of people diagnosed with ASD has increased considerably in recent years (Australian Bureau of Statistics, 2015).

Australian Government Department of Social Services, Australia ratified the Convention of the Rights of Persons with Disabilities in 2008, being one of the first countries to ratify this progressive convention. Australia, like Japan and other countries, has made significant efforts to commit to inclusive education through the ratification of the convention (Cologon, 2014). In addition, since 2015, all public and private schools in Australia have been required to participate in the Nationally Consistent Collection of Data on School Students with Disability, a program that provides greater visibility into whether discrimination against students with disabilities is being appropriately remedied and adequate

supports are being implemented. Thus, considerable efforts are being made to provide better learning opportunities for students with disabilities (Sharma, Kelly, de Bruin, & Menage, 2017).

In Australia, children over the age of six are required to attend school, and children with ASD are not exempted. When choosing schools, parents need to consult preschool teachers in advance, professionals at early intervention services, or the state or territory education service. There are four types of primary school options: (a) mainstream public and private schools where children learn with typically developing children and get additional support from teachers with expertise if needed, (b) special units in mainstream public and private schools where children have some lessons in a mainstream class and receive more specialist teaching and support in a specialist class, (c) specialist public or private schools for children who need additional educational needs, like children with intellectual disabilities, which can include children with ASD, and (d) home-schooling. Concerning the final aspect, every child has the legal right to receive home-schooling if the child has adequate reasons for doing so, such as a significant distance from a suitable school, or religious and cultural values. If the home-schooling option is chosen, parents need to follow certain requirements set by the state or territory education department (Raising Children Network, n.d.).

As mentioned above, the inclusive education system in Australia is not significantly different from that of Japan and other developed countries. The following section introduces the Australian support system for children with ASD and other developmental disabilities.

2.5. Early Intervention

Early intervention has been proposed as an effective way for reducing future disabilities among children diagnosed with ASD in Australia (Paynter, Scott, Beamish, Duhig, & Heussler, 2012). In addition, Estes, Jeffrey, Rogers, Greenson, Winter, and Dawson (2015) reported that early intervention improves children's intellectual abilities, language

skills, and social behavior, and furthermore reduces ASD symptoms. They reached this conclusion by examining evidence, based on a follow-up study of 39 children, of the effects of early intervention. Australia has a system for providing financial support to Australians with disabilities, their families, and carers. The system called the National Disability Insurance Scheme (NDIS) provides Australians under the age of 65 who have a permanent and significant disability with the assistance they need to survive (Australian Government Department of Social Services, 2022). Children with ASD are eligible for NDIS support provided they have reduced functional capacity in one or more of the following areas: communication, mobility, social interaction, learning, self-care, and self-management. (Autism Awareness Australia, n.d.). Through NDIS, many children with ASD receive early childhood intervention supports such as speech therapy, occupational therapy, psychological counseling, and other such assistance.

In the following, I present two cases outlining young males diagnosed with ASD. The mother of one boy with intellectual disability said that he could not speak at the age of three. The mother felt the need early intervention and submitted an application to the NDIS to be able to receive speech therapy. The boy is now able to speak and attends a public primary school with his own educational plan (anonymous informant #3, personal communication, June 10, 2020). The other mother said that when her child was three years old, he could not say more than three words, and all other communication he used was gestures, mumbled speech, and echolalia. The mother consulted with the state Autism Association about the support he needed, through them, with the help of the NDIS, he was able to receive early intervention therapy to prepare him for school (anonymous informant #4, personal communication, January 18, 2021). As in the cases of the above two boys, children with disabilities in Australia often receive early intervention therapies tailored to their disabilities as part of their school preparation with funding from the NDIS. Receiving early intervention

programs appears to be effective in helping adjust to an inclusive educational environment in which children with ASD learn alongside typically developing children in primary school.

Although inclusive education, encouraged by ratification of the Convention on the Rights of Persons with Disabilities, seems to be progressing well, some problems have been pointed out. In the next section, I list issues related to inclusive education and discuss those along with future perspectives.

2.6. Issues in Inclusive Education in Australia

As previously stated, Australia seems to have made a clear commitment to inclusive education. However, Cologon (2014) noted that the first report on Australia's progress since ratifying the Convention on the Rights of Persons with Disabilities in 2008 found that Australia fails to meet its obligations to people with disabilities, including children's rights to inclusive education. Cologon (2014) further pointed out that research on teachers' attitudes toward inclusive education indicates that teachers often feel pressured to meet grade-based assessment goals, resulting in the exclusion of children. In 2009, Australia conducted a survey on the experience of people with disabilities that resulted in numerous critical comments, including mentions of a lack of resourcing, commitment to inclusive education, and basic understanding of people's needs (National People with Disabilities and Carer Council, 2009). Lassig, Ped, Mann, Saggers, Carrington, and Mavropoulou (2022) pointed out that despite the Convention on the Rights of Persons with Disability stating that children with disabilities have the rights to be educated to the same standards as their peers without disabilities, the increase in segregated education in Australia is alarming.

Section 3 covered issues of inclusive education in Japan, which appear to be unique to Japan. While in Australia, services such as early intervention are available with support from the government and inclusive education seems to be working well. Yet some problems have

become apparent. Education for children with disabilities is still developing, and further reforms are needed.

2.7. Chapter Summary

In this chapter, I summarized some of the principal aspects of the current state of education in both Japan and Australia for children diagnosed with ASD.

Since the adoption of the Convention on the Rights of Persons with Disabilities at the United Nations in 2006, Many countries have moved from viewing persons with disabilities as "subjects" of charity, medical care, and social protection to new heights of viewing them as persons endowed with the right to claim their rights and make decisions for their own lives. With regard to education, it is stated in Article 24. It specifies that it promotes inclusive education, a system in which people with and without disabilities learn together, and ensures that people with disabilities are protected and provided with reasonable accommodations so that they are not excluded from the general education system. In order to achieve the right to education of persons with disabilities on the basis of equal opportunity and without discrimination, government parties need to ensure inclusive education systems and lifelong learning at all levels. Following this trend, Australia ratified the Convention on the Rights of Persons with Disabilities in 2008 and Japan in 2014, changing education for children with disabilities in both countries from segregated to inclusive.

Additionally, this chapter described the inclusive education systems in Japan and Australia. In both countries, there were no significant differences in that the severity of a child's disability was taken into consideration in both countries when selecting a school. Basically, the requests of the parents and the child are taken into account in both of these contexts. Despite the seeming progress of inclusive education, some common problems have been revealed in both countries. For example, lack of resources, lack of understanding of inclusive education, and issues related to teachers. In the case of Australia, teachers' attitudes

toward inclusive education indicated that teachers might feel pressured to achieve grade-based assessment goals which result in the exclusion of students with disabilities. In Japan, on the other hand, it was found that there is a lack of knowledge among teachers concerning students with disabilities and there are disparities among regions in terms of available finances, making it difficult to hire teachers with high levels of expertise in many areas. Another difference between the two countries was the financial support provided by the government. Australia encourages early intervention as an effective way to reduce future disability. Financial support for receiving early intervention is well developed. Funding for support tailored to the child's needs, such as speech therapy, occupational therapy, or the advice of a psychologist, is available through the National Disability Insurance Scheme (NDIS), a financial assistance system for people with disabilities. In contrast, in Japan, schemes such as those found in Australia's have yet to be established, and in most cases, parents have to pay for additional support. This is a major financial burden for parents.

As described above, this chapter has exhibited the extent to which inclusive education, based on the premise that children with disabilities should be given the same educational opportunities as children without disabilities, is functioning in the social educational contexts of Japan and Australia.

CHAPTER 3

LITERATURE REVIEW

This chapter presents conversation analysis (CA), the research method used in this dissertation, as one of the major methods in the study of social interaction, embracing verbal and non-verbal conduct, in situations of everyday life. It is organized as follows. First, I briefly describe the origin of CA, followed by a description of its basic principles. I then introduce the foundational concepts of CA in the study of talk-in-interaction: turn-taking organization, sequence organization, and preference organization. Finally, in the last section of this chapter, I closely describe topic management and repair organization, which constitute the main foci of the present study.

3.1. Conversation Analysis

3.1.1. Background of Conversation Analysis

The inspiration for Conversation Analysis (CA) came from Erving Goffman's approach to the study of human interaction (Goffman, 1963, 1964, 1967, 1983) and Harold Garfinkel's ethnomethodology (Garfinkel, 1967). Goffman's main pillar of research was the "interaction order" (Goffman, 1983). Goffman argued that the order of interaction is maintained when people, consciously or unconsciously, perform acts appropriate to each situation in face-to-face contact with others, and that this order is the basis for the construction of social institutions. Thus, social interaction is not merely a means of conveying information in a social institution but is normative in and of itself in building such institutions. Additionally, Goffman demonstrated the significance of language in mutual exchanges, especially the norms of reciprocity that are observed in the ritual systems that organize and form social interaction (Goffman, 1981). He asserted that the ordinary activities of everyday life were essential subjects for study (Goffman, 1963, 1964, 1967, 1983). Goffman (1964), in

particular, drew attention to the relevance of the study of social interaction arguing that:

> Talk is socially organized, not merely in terms of who speaks to whom in what language, but as a little system of mutually ratified and ritually governed face-to-face action, a social encounter. (p. 65)

Goffman's approach to research employed qualitative descriptions and analysis of actual interactions to develop an understanding of the structure of social interaction. This contrasted with the prevalent work applied in quantitative research in sociology and social psychology in the 1960s.

Another researcher who had a major influence on the birth of CA is Garfinkel. He is the founder of the discipline known as ethnomethodology in the field of sociology. Similar to the work of Goffman, Garfinkel was also interested in and studied face-to-face interaction, but his research focus was different from Goffman's. What Garfinkel considered more consequential was to understand the "sense-making procedures" that people exercise in their daily life. In his magnum opus *Studies in Ethnomethodology* (1967), Garfinkel points out that it is crucial to understand these "sense-making procedures." In other words, it is essential to understand how people recognize each other's individual social life and how they act appropriately to the mundane situations they encounter in everyday life. Contrary to the positions taken by contemporary sociologists, who assumed that social phenomena are regulated by social institutions and people's power relationships, Garfinkel (1967) focused his research on the social structure found in quotidian experiences and worked to build an understanding of "how the structures of everyday activities are ordinarily and routinely produced and maintained" (p. 38).

The concepts and methods of Goffman and Garfinkel provided a catalyst for the development of CA by establishing a concern for exploring the orderliness of mundane life. These concepts and methods were carried forward into the field of CA by Harvey Sacks in his *Lectures on Conversation* from the early 1960s (Sacks, 1992). Sacks developed a method

for studying the social order produced through the practices of everyday talk. As a consequence of the seminal work of its founding members, Harvey Sacks, Emmanuel A. Schegloff, and Gail Jefferson, by the early 1970s, CA had begun to emerge from sociology as an independent area of study oriented towards understanding the organizational structure of talk.

The discipline of CA is characterized by the notion that conversation is not merely a means of communicating information, but rather is an activity that allows participants in a conversation to accomplish actions within and through the interaction. Therefore, through sequences of actions, talk can be strategically utilized to achieve social and communicative goals.

3.1.2. Basic principles of Conversation Analysis

In this sub-section, I present the basic principles of Conversation Analysis (CA). CA is a method for analyzing and understanding naturally occurring interaction, or talk in interaction. Drew and Heritage (1992b) note that talk-in-interaction has become the accepted superordinate term to refer to the object of CA research. As defined by Psathas (1995), CA is the study of the organization and order of social action in interaction. The organization and order that Psathas refers to is produced by participants in a conversation within an interaction and are oriented to by they themselves. Consequently, it can best be understood from the perspective of the participants. The difference between etic and emic, which is essential for understanding the perspective of CA, is briefly outlined below. The classic definitions of etic and emic perspectives were made explicit by Pike:

> The etic viewpoint studies behavior as from outside of a particular system, and as an essential initial approach to an alien system. The emic viewpoint results from studying behavior as from inside the system. (Pike, 1967, p 37)

Given Pike's definition, CA strictly applies an emic perspective because researchers in CA

understand and analyze the interaction being studied on the basis of what its participants themselves are orienting to on a moment-by-moment basis. Simply put, in CA, analysis is conducted from the participants' perspective in the interactional environment in which the talk takes place. The analyst is required to take an emic perspective to elucidate and describe what participants orient to and what participants try to achieve in each and every action. The analysis begins with unmotivated looking at the data (Psathas, 1995), which involves the analyst in analyzing the data with an open mind so as to discover what is going on in the data without making any prior assumptions or testing preconceived hypotheses. Unmotivated looking enables the analyst to notice the actions being performed in the talk and the procedures taken to accomplish those actions.

Another essential principle of CA is that contributions to interaction are context-shaped and context-renewing (Heritage, 1984). Any actions the participants deploy become meaningful through these two contexts. Actions are context-shaped in that they occur as a response to what has occurred in a previous turn. What participants produce is shaped by the context in which it occurs, and the next talk is adequately understood in the light of what has preceded it. Simultaneously, actions are context-renewing since they shape the context for the next turn and the next action is constrained by the current action. The context-renewing nature of actions also influences what follows and affects how further action will be heard and interpreted (Heritage, 1984). Therefore, context is dynamic and is repeatedly renewed during the course of an interaction.

3.1.3. Basic organizations of Conversation Analysis

This section describes the overall organization of conversation analysis. It begins with an introduction of the turn-taking system first explicated by Sacks, Schegloff, & Jefferson (1974; see Lerner, 2003, for an expansion of the turn-taking system to include multi-modality) and outlines the basic rules participants follow in turn-taking. In addition, it

introduces the machinery of sequence organization (Heritage, 1984; Atkinson and Drew, 1984; Schegloff and Sacks, 1973) and finally covers the significance of preference organization (Pomerantz, 1984).

3.1.3.1 Turn-Taking Organization

Turn-taking is one of the most conspicuous features occurring in social interaction. The most basic practice of ordinary conversation is that overwhelmingly one person talks at a time, though speakers change, and this "one at a time" principle is constructed by participants themselves (Sacks, Schegloff, & Jefferson, 1974). When participants find themselves talking "more than one person at a time," one of them is likely to abandon the floor before finishing the end of their turn. Moreover, in cases of silence in conversation, in which no one is taking the floor at a certain point in time, participants will attempt to minimize the silence by taking a turn. Sacks et al. (1974) delineated the turn-taking system in ordinary conversation that allows participants to follow this "one at a time" system in a local and systematic way. The turn-taking system is operated by participants, is managed locally, and is sensitive to each moment in the interaction.

Sacks et al. (1974) state that the turn-taking system for conversation has two components, which are referred to as the turn constructional component and the turn allocation component. These are delineated in the following paragraphs.

The turn constructional component consists of building blocks that allow the parties to the conversation to form a turn. Speakers use a variety of unit types in constructing a turn. These units are the minimum units that make up a turn, and they have a structure that allows recipients to project where the unit is likely to be completed and in what form. Such a unit type is called a Turn Constructional Unit (TCU). TCUs have various grammatical units, such as lexical, phrasal, clausal, or sentential, which can be used as clues to project how a turn is to be possibly completed. Furthermore, elements other than grammatical elements, including

gaze, physical behavior, and prosody are involved in the construction of TCUs, playing a major role in projecting a TCUs' completion point. Thus, participants in conversation construct their TCUs utilizing the various resources available at a certain time and place in the interaction, and make a completion point projectable for recipients. This projectability makes it possible for recipients to take a turn at a Transition Relevance Place (TRP), a place at which speaker change is appropriate. This means that a TRP is not a place where speaker change is compulsory, but rather it is a place speaker change can occur.

The turn allocation component refers to the techniques that can be deployed to select a next speaker among the participants in a conversation. Sacks et al. (1974) describe the basic techniques in which a turn is distributed: (a) current speaker selects a next speaker, (b) the next speaker self-selects, and (c) the current speaker continues. In the case of (a), the current speaker's talk needs to be designed to accomplish selection of the next speaker. For example, the current speaker can employ questions, address terms, or turn their gaze to select the next speaker (Lerner, 2003). If the current speaker does not select a next speaker, any other participants can self-select to take a turn. If no other participants self-select to take a turn, the current speaker may continue to talk. The order, from (a) to (c), is constantly maintained. Hence, turn-taking in ordinary conversation is achieved through the practice of determining who takes the next turn each time there is a possible turn relevance place, that is to say, the current speaker reaches a TRP. Participants continually monitor this rule, allowing the speakers to smoothly transition between turns in ordinary conversations.

3.1.3.2. Sequence Organization

One of the most foundational building blocks supporting ordinary conversation is sequence organization, which, along with turn-taking organization, is an integral part of CA research. The actions that build up conversations are performed through turns at talk. Turns at talk are purposefully organized, and this orderly gathering of turns is referred to as sequence

organization. According to Schegloff and Sacks (1973), a range of sequences in talk-in-interaction are regularly produced in pairs of actions. For example, a greeting is followed by another greeting, a question is followed by an answer, an offer is responded to with an acceptance or a refusal, and farewell is responded to with another farewell, and so on. These types of pairs have been termed adjacency pairs. They are the basic units on which sequences in conversation are built (Schegloff & Sacks, 1973). As Schegloff (2007) explains, an adjacency pair is characterized by the following five features. Adjacency pairs are: (a) composed of two turns, (b) produced by different speakers, (c) adjacently placed, that is one after the other, (d) relatively ordered as a first-pair part (FPP) followed by a second-pair part (SPP), and (e) the two turns are type-related, so that a FPP requires a particular SPP (p. 13). Basically, an adjacency pair is composed of two turns, which are an action initiating turn and an action completing turn. Presented below are two examples of adjacency pairs.

(1)[Schegloff, 2007, p. 22]
01 Bee: hHi:,
02 Ava: Hi:?

In Extract (1), Bee's greeting in line 1 is what initiates the greeting exchange, the first-pair part (FPP), and the return greeting from Ava in line 2 is its second-pair part (SPP). Similarly, the following is an example of a question-answer adjacency pair.

(2) [Stivers & Robinson, 2006, p. 370]
01 Boy: what kind of fish is (it)/(this).
02 Mom: . h Halibut,

In Extract (2), the boy's information-seeking question (FPP) makes relevant an answer (SPP), which is provided in line 2. Each of the extracts above illustrates that the relationship between two actions in two turns is a normative one where an FPP makes an SPP conditionally relevant next. If an SPP is not produced in a timely manner and silence occurs,

it is noticeable and accountable under what has been termed "conditional relevance" (Heritage, 1984). This means that if an FPP in not immediately followed by an appropriate SPP, it will be seen as demonstrably absent and problematic, as shown in Extract (3).

(3) [Nofsinger, 1991, cited in Liddicoat, 2011, p. 161]
01 C: Anne
02 ((silence))
03 C: Anne
04 A: What

In the extract above, as C calls A's name, "Anne", A is obliged to respond to the summons from C under the terms of conditional relevance (Heritage, 1984), but a silence occurs that disrupts the smooth transition of adjacency pairs. The lack of A's response may either be a hearing problem or a deliberate withholding of a response. C, however, treats it as a hearing problem as the summons is simply repeated.

So far in the discussion, I have described the basic features of sequence organization, and how it is constructed in the form of adjacency pairs. Although the adjacency pair structure is the basic material out of which sequences of talk are constructed, adjacency pairs can be expanded to more than a single adjacency pair in various places. Schegloff (2007) notes that there are three places at which an expansion is possible to occur. Expansion may occur before a base FPP (pre-expansion), between a base FPP and a base SPP (insert expansion), and after a base SPP (post-expansion).

Pre-expansion, before the base FPP, is formed in one of two ways: type-specific pre-sequences or generic pre-sequences. Type-specific pre-sequences are preliminary to producing particular types of sequences, such as invitations, requests, offers and the like. In other words, type-specific pre-sequences work to prepare recipients for specific subsequent actions. For example, invitations are frequently preceded by pre-expansions (pre-invitations), such as "Are you doing anything?" or "What are you doing?" (Schegloff, 2007, p. 29). As a

response to this question, speakers may receive any of three types of SPPs: (a) some form of "No", which means the speakers receive a go-ahead sign that promotes the progress of the invitation sequence, (b) some form of "I'm doing X", which means the speakers receive a blocking sign that the invitation will be refused, or (c) some form of "why?", maybe," and the like, which means the speakers receive a hedging sign that the recipients' willingness to be invited depends on the nature of the invitation. Thus, the subsequent sequence is contingent on how the recipient responds. The following extract illustrates an example of a pre-invitation.

```
(4)[JG 3:1, Schegloff, 2007, p. 30]
01 Cla: Hello
02 Nel: Hi.
03 Cla: Hi.
04 Nel: Whatcha doin'. pre-FPP (pre-invitation)
05 Cla: Not much.      pre-SPP (go-ahead)
06 Nel: Y'wanna drink? base-FPP
07 Cla: Yeah.          base-SPP
08 Nel: Okay.
```

In Extract (4), Nelson's (Nel) question, in line 4, is a form of pre-invitation that commonly requires a go-ahead response. In response to Nelson, Clara (Cla) answers, "not much.", which indicates the invitation will be welcomed. Then Nelson asks, "Y'wanna drink?", and Clara accepts it.

Another type of pre-sequence is a generic pre-sequence. This type of pre-sequence is not designed for the nature of the action to which it is prior, but rather generic pre-sequences can be utilized to initiate any type of next talk. This is most frequently seen in summons-answer sequences at the beginning of conversations.

Expansions that occur between an FPP and an SPP of the base adjacency pair, insert expansions, are either post-first insert expansions or pre-second insert expansions. Post-first

insert expansions are designed to cope with some troubles that arose from the FPP which preceded them. There is only one type of post-first insert expansion, and it is repair initiation on the FPP. Once problems arise in a conversation, participants need to immediately address and repair them. According to Schegloff, Jefferson, and Sacks (1977), overwhelmingly repair is initiated in the immediate next turn after a problem occurs. Pre-second insert expansions occur in the same environment as post-first insert expansions, between an FPP and an SPP of the base adjacency pair, yet they function in different ways. Pre-second insert expansions are designed by speakers to do some work to proffer an appropriate and relevant upcoming SPP. An example of a pre-second insert sequence is illustrated by the interaction occurring in the following service encounter.

```
(5) [Sandwich Shop, in Liddicoat, 2011, p. 183]
01 Customer: C'd I have a turkey sam'wich please (FPP base)
02 Server:   White or wholegrain,  (FPP insert)
03 Customer: Wholegrain.   (SPP insert)
04 Server:   Okay.     (SPP base)
```

In the example above, after the customer orders a sandwich (FPP), the server asks a question about the type of bread, which is an action that is necessary before they can provide the SPP.

Another type of expansion is post-expansion. The post-expansion is deployed after the completion of the base SPP. The most common post-expansions are sequence closing thirds, such as "okay" and "oh", which are designed to close and terminate a sequence. The reason why they are called sequence closing thirds is that they are placed in the third position to the base of the adjacency pair.

3.1.3.3. Preference Organization

The foundation of the concept of preference organization in the analysis of interaction was laid down by Sacks (1987). Heritage (1984) further described the concept of preference,

which has been developed to characterize differences in how alternative second actions occur. Participants exhibit systematically different characteristics when they produce a preferred SPP and a dispreferred SPP, not only in question-response sequences but also when they respond to other kinds of FPPs (Pomerantz, 1984). The term preference does not refer to the personal desires or an indication of a psychological state or condition, but rather to the recurrent features of talk in which actions are accomplished. The difference between preferred and dispreferred actions in the production of the second part of an adjacency pair exhibits differential characteristics. Preferred actions are routinely produced explicitly and immediately with little or no delay. Dispreferred actions, on the other hand, are accompanied by all or some of the following features: (a) the action is produced with delay, (b) the action is prefaced or qualified, (c) the action is accomplished in a mitigated way, and (d) the action is accounted for (Schegloff, 2007).

The following are specific examples of preferred and dispreferred responses in invitations.

```
(6)[Amy and Jane, Liddicoat, 2011, p. 150]
01 Amy: w'd yuh like tuh come over t'morrow night
02 Jane: yea:h.= that'd be nice.
```

Here, Jane accepts Amy's invitation immediately and adds a strong agreement. Extract (6), thus, illustrates a preferred response to an invitation. In contrast, Extract (7) is an example of a dispreferred response to an invitation.

```
(7) [Tools, Liddicoat, 2011, p. 151]
01 James:  How about going out for a drink tonight
02 Graham: (0.2) tuh- uh sorry b'd I can' make it =c'z Jill
           has invited some've her friends over. Perhaps
           some other time
```

Graham does not respond immediately to James' invitation, and after a 0.2 second pause, he

gives his account for declining the invitation. As seen in the two examples above, the preferred action is produced explicitly and immediately, while the dispreferred response is produced with a delay, thus avoiding a direct refusal; these examples exhibit the distinct characteristics of preferred and dispreferred actions in the second part of an adjacency pair.

3.2. Topic Management

Topic is a crucial element of conversation, shaping talk-in-interaction in profound ways. For participants, a conversation can rarely proceed without topics, and is oriented to by the participants themselves in real-time interaction. Seedhouse (2004) notes that "topic is a central concept in the analysis of talk and is co-constructed by participants during the course of the talk" (p. 38). This section discusses topic management, particularly, topic initiation and shift. However, the way topics are viewed in this study differs from the grammarians' static, segmental view of a topic, and is discussed from the perspective of conversation analysis. In particular, CA does not distinguish one topic from another or identify topic boundaries, but rather focuses on how topics are related to the sequence structures of turns in conversation through the analysis of turns at talk.

3.2.1. Topic Initiation

Atkinson and Heritage (1984) observed that "Topic" is one of the most complicated aspects of conversation. The organization of topic initiation is accomplished in sensitive sequential environments where participants produce a new topic during the beginning or closing of a conversation and the initiation of a topic is only carried out when all the parties in an interaction are mutually oriented to the initiation. Maynard (1980) observed that topic initiations do not occur at random, but they occur in specific environments and in characterized ways. Wang and Waring (2020) described three environments in which a new topic can be unrelated from the previous topic: (a) during the beginning or closing of a

conversation, (b) following a series of silences, or (c) after the closing of a prior topic (p. 154). A challenge in examining topic organization is that a distinct beginning of a topic may be difficult to be identified. Sacks (1992) described two different ways of initiating a topic. One is referred to as a stepwise topical movement, in which one topic gradually flows into another. The other one is called boundaried topical movement, in which the initiation of a new topic follows the closure of a topic. There are two types of boundaried topical movements. One is "topic nomination," where the speaker presents a new topic. The other is the use of a "disjunctive marker." A disjunctive topic marker allows the speaker to signal recipients when introducing new information that is inconsistent with the previous topic. In what follows, I will elaborate on two types of boundaried topical movements.

3.2.1.1. Topic Nomination for Topic Initiation

Button and Casey (1985) offered three sequence types that are utilized for boundaried topical movement: (a) topic initial elicitors, (b) itemized news inquiries, and (c) news announcements (p. 4). Topical elicitors are designed to elicit a candidate topic from the recipient and typically take a question form such as "What's new?", "What's doing?", "What's going on?", and so forth. While topic initial elicitors do not specify an item of news as a topic initial, itemized news inquiries and news announcements can be considered topic nominations in which speakers themselves present a topic. In the following, I discuss topic nominations, especially, itemized news inquiries. These will be discussed further in the analysis section as they can be observed in my data set.

As mentioned above, Button and Casey (1984) report two types of topic nominations, an itemized news inquiry and a news announcement. An itemized news inquiry is a way to initiate a new topic by making an inquiry into a newsworthy recipient-related event. An itemized news inquiry also deals with recipient-related events about which a current speaker has only partial knowledge and the recipient possesses epistemic primacy. It is usually

accomplished in a yes/no question format. Itemized news inquiries are similar to the "topic-proffering" discussed in Schegloff (2007). Schegloff (2007) noted that topic proffering has two features. One is characterized by recipient-related topics, that is, topics where the recipient is an authoritative speaker or is treated as such. A second feature is that they are commonly implemented in a yes/no question format. Topic proffering encompasses a wide range of topics related to recipients. An itemized news inquiry, conversely, makes inquiries into recipients-related events that are newsworthy. Extract (8) illustrates an example of an itemized news inquiry. Maggie casts an item that is related to Lawrence.

(8)[Button & Casey, 1985, p. 15]
01 Maggie: How's your sister an [her husband?
02 Lawrence: [oh t'che well as a matter
03 Lawrence: fact uh ih Dawn is alright. She had a very
04 very bad cold the lahst month. An Charlie is:
05 had a very serious operation. Surgery on the
06 gal, g'll bladder. But I guess he's alright.
07 But .hhh at his age maybe it's little roughhh
08 Maggie: No more wild game hunting'uh.

Maggie initiates a new topic by using a question format in line 1. Note that the item of the news inquiry is related to a recipient, Lawrence, who has more epistemic authority in the matter under discussion. As illustrated by Lawrence's response, the recipient of an itemized news inquiry produces an elaborated response, consequently resulting in topicalization and further development of talk. However, even if a possible material that topicalizes is introduced, it is frequently seen that an itemized news inquiry only fills in a knowledge gap and results in non-topicalization (Button & Casey, 1985). The following is an example of a conversation that only fills in a knowledge gap and does not develop further.

(9) [Button & Casey, 1985, p. 16]
01 A: Hello Hillcrest High School

```
02 B: Yes is Hillcrest going to open today?
03 A: We don't know yet uh Mrs Rodgers just came in an' she's
04    goin t tell us (if) we're gonna have (a) school or not.
05 B: well this[is
06 A:          [we are going to have a school, ma'am
07 B: you are
08 A: yes
09 B: okay fine cause I'm waiting for the bus service and apparently
10    she's a little late too
11 A: okay
12 B: thank you [bye bye.
13 A:           [(you're welcome).
14 A: bye bye
```

No further talk developments are seen after A provides the information B asks for. Even though B, in line 9, proffers some material that could be topicalized, "okay fine cause I'm waiting for the bus service and apparently she's a little late too", it is not eventually topicalized, which displays that both participants orient to this sequence as only filling in a knowledge gap inquiry.

As with English conversation, in Japanese conversation, a speaker initiates a new topic with an itemized news inquiry, which invites extended talk. However, a new topic is not always topicalized and may simply fill in knowledge gaps. Extracts (10) and (11) below present an example of how a Japanese speaker initiates a new sequence with an itemized news inquiry.

```
(10)[Japanese Students]
((Uta, a Japanese graduate student, and Ken, a Japanese
undergraduate student, are talking about a trip ))
01 Ken: kankoku no  hou    ga  yasui ssuyo ne.
         korea   GEN rather Nom cheap  COP  IP
        "Korea is cheaper, isn't it?"
02 Uta: a::  soudayo ne.
        yeah  right   IP
```

"Yeah, that is right."
03 (0.5)
04 Uta: *osaka na no?*
osaka COP Q
"Are you from Osaka?"
05 Ken: *osaka,su, mou kaeru no taihen desu yo mou=*
osaka COP really go home GEN hard COP:POL IP really
"It is hard to go back to Osaka."
06 Uta: *nande*?
why
"Why?"
07 Ken: *ano:: takaku tte ano: basu yara:* [*densha*] *yara takai*
well expensive and well bus and train and expensive
"Bus and train fare are expensive."
08 Uta: [*a::::*]
"Oh"
09 Ken: *shinkansen ichiman gosen en*
bullet train ten thousand five thousand yen
10 *suru jya nai desu ka::*
do COP NEG COP:POL Q
"The bullet train costs 15,000 yen."

In Extract (10), Ken and Uta are talking about a trip. After a 0.5-second pause, Uta initiates a new topic with an itemized news inquiry, "*osaka nano*? (Are you from Osaka?)". By providing a detailed answer to Uta's inquiry, Ken expands his talk, and the topic is consequently topicalized.

On the other hand, the following is an example of a turn that fails to be topicalized and only fills in knowledge gaps. Extracts without citations are from the data set of this dissertation.

(11)[Mum and Son]
01 Jun: *indigo chirudoren jya nai.*
indigo children COP Neg
"I am not indigo children."
02 Mum: *datte Miri chan itte ta yo.*

```
          because name  TL   say  PST IP
          "Because Miri said so."
03 Jun: iya chigau   chigau    chigau   u::n mou    daikirai
          no  not true not true not true      already hate
          "No, it is not true. I hate that sort of story."
04        (4.0)
05 Mum: jya: kore wa  dare?
          then this TOP who
          "Then who is this?
06 Jun: sore ore da  yo.
          it    me COP IP
          "It's me."
07         (1.0)
```

Before this segment, Mum tells her son, Jun, that he is an indigo child, which are often described in spiritual stories. Jun denies Mum's assertion. After a rather long silence, Mum, in line 5, initiates a new topic while displaying a photo on her mobile phone to Jun, "*jya kore wa dare?* (Then who is this?)". Responding, in line 6, Jun utters, "*sore ore da yo*. (It's me.)". Then silence ensues, and no further talk on this topic occurs. Consequently, the topic fails to be topicalized but only fills a knowledge gap.

As the examples of English and Japanese topicalization shown above illustrate, when a new topic is initiated using an itemized news inquiry, whether it develops as a new topic, or only fills a knowledge gap and ends the sequence, depends on what the speakers and hearers interactionally and mutually orient toward.

3.2.1.2. The Disjunctive Marker "oh" Deployed for Topic Initiation

In this sub-section, I will review the disjunctive marker "oh" as it is deployed for initiating a new topic. Employing a disjunctive marker for generating a new topic is more common than nominating a new topic. An interjection that is frequently seen functioning as a disjunctive marker in mundane conversation is "oh." Previous studies have found that "oh" is

generally understood as a change-of-state token, and it works to respond to some prior action (Heritage, 1984, 1988). Thus, "oh" is utilized to convey the sense that something has just been noticed or remembered (Heritage, 1984, 1988; Jefferson, 1978). Moreover, the use of "oh" at the turn-initial position also functions to alert recipients that new information is incoming and is disconnected from the previous topic. Bolden (2006) noted that the disjunctive marker "oh" is introduced to initiate various telling sequences. In such cases, "oh" suggests that the speakers have just remembered what they are about to tell. As illustrated in the following example, utilizing the disjunctive marker "oh" to alert the recipients that the speaker has just remembered a news item that they are about to tell, and then the storytelling begins.

(12) [J:FN, Jefferson, 1978, p. 222]
((three people walking together; someone passes them wearing a photograph teeshirt))
01 NETTIE: Oh that teeshirt reminded me [STORY]

Nettie produces "oh" as she has just recalled a story by virtue of observing something in the environment. She then launches a storytelling. As with Extract (12), Extract (13) employs the disjunctive marker "oh" and generates a new topic.

(13) [Talk Bank Eng 6092, Bolden, 2006, p. 675]
((about Alex's roommates))
01 ALEX: 's fucking a:ssho:les.
02 CHR: HH
03 (1.5)
04 ALEX: Oh. (.) You wanna hear something (d) interesting?
05 CHR: Sure.
06 ALEX: .hAh::::I don't know-Okay this does not go-e-hh I like
07 how=
08 CHR: =Hhe[he-heh-heh
09 ALEX: [(I'm playing as being).hh alright,=Uh::m.hh (0.2)
10 >okay< (1.2) Alright uh: I'll see if I can try to:::(0.5)

11 hh#eh:::#I like t'ema:nicipate myself from my parents,
12 (0.2)
13 ALEX: financially?,
14 CHR: LEGALLY?
15 ALEX: LEGALLY? en financially,
16 CHR: Why?
((continue about the emancipation))

Bolden (2006) pointed out that the announcement sequence emerges from a rather long silence that follows the closing of the previous sequence. In line 4, Alex initiates a new topic with the disjunctive marker "oh." After receiving a go-ahead response, Alex proceeds with his telling.

As is the case with English conversation, in Japanese conversation, a speaker deploys a disjunctive marker as a device to initiate a new topic. Here is one example of this phenomenon in a Japanese conversation.

(14)[Mum and Son]
01 Mum: *rappu ii ne::*
rap good IP
"Rap music is good."
02 (2.0)
03 Mum: *chotto matte*
little wait
"Just a second."
04 (0.5)
05 Jun: *oh:, kakko yoku ↑na::i*?
oh cool good NEG
"Oh, doesn't he look cool?
06 Mum: °sore° dare,
it who
"Who is he?"
07 Jun: *Gen kun*.
Gen TL
"Gen kun."

Mum and her son, Jun, are talking about rap music, which he has taken an interest in. Jun has just remembered his friend while looking at photos on his mobile phone and utters, "*oh:, kakko yoku ↑na::i ?* (oh, doesn't he look cool?"). He then starts talking about his friends while showing photos to his mother, thus initiating a new topic.

As mentioned above, the disjunctive marker "oh" not only indicates that the speaker has just remembered something, but also performs the function of notifying the recipient that a new topic is disconnected from the previous topic.

3.2.2. Topic Shift

Besides topic initiation, topic shift is an essential component of topic management. Topic shift refers to actions of shifting focus within a topic or moving towards a new topic. Although topic initiation and topic shift seem similar, topic initiation occurs in the three environments of conversational openings, closings of a prior topic, or after a silence. Topic shift, by contrast, occurs within a current topic. Sidnell (2010) ascertained that while it is obvious that topics change and transform over the course of a conversation, a topic shift may be accomplished in a more or less subtle way. Wong and Waring (2022) described two means of accomplishing topic shifts: a stepwise topic shift and a disjunctive topic shift. A stepwise topic shift is a way of gradually transitioning to a new topic or a new aspect of the same topic. A disjunctive topic shift, on the other hand, is a way of moving into a new topic or a new aspect of the same topic by deploying disjunctive markers such as "anyway", "alright", "oh", well", and so forth. In what follows, I will describe in depth these two types of topic shift.

3.2.2.1. Stepwise Topic Shift

Participants in ordinary conversation often shift from one topic to another in a seamless and unnoticeable manner. A stepwise topic shift refers to the way in which there is a gradual

transition from one topic or one aspect of a current topic to the next. This is done in a connected way without any disruption. Sacks elucidates how stepwise topic shift is achieved:

> It's a general feature for topical organization in conversation that the best way to move from topic to topic is not by a topic close followed by a topic beginning, but by what we call a stepwise move. Such a move involves connecting what we've just been talking about to what we're now talking about, though they are different. I link up whatever I'm now introducing as a new topic to what we've just been talking about. (Sacks, 1992, p. 566)

What follows is an example of a topic shift in which participants gradually and seamlessly move from one ongoing topic to another.

```
(15)[Rahman:B:1JMA(13)]
01 Jen: .hhh Ahn' the chairs uh beautiful ex well. .hh B't theh badly
02      (kipt).
03      (0.3)
04 Ann: Aoh[::::.
05 Jnn:    [Yihknow they scuffed uh-.hh e-They hahdn't sort'v ehm
06      .p .hhhh ti:ed th'm all (down) d'you know the le:gs
07      eh-[ih-i(round)
08 Ann:    [Yes.
09 Jen: they should be packed with corrugated cahr:d'n thaht.
10 Ann: Ye[:s?,
11 Jen:   [.hhh well obviously theh hahdn' been.ahn' they-the ahr(p)
12      I:must edmit they ahr .hh cuz I wz looking et mine ah:
13      thought well I've brought five boys up on mi:ne ahn'[mine=
14 Ann:                                                    [Mhm?,
15 Jen: =ahn't ez badly: .hh chi- yihknow [yihknow knocked.=
16 Ann:                                   [Yes.
17 Ann: =I know whatchu mea:n=
18 Jen: =M[m:::.
19 Ann:   [I mean they [should give]
20 Jen:   [She w'zve]ry upset actually coozih- she's-
21 Jen: waited sich a long [ti:me for it en I mean=
```

```
22 Ann:                    [(                )
23 Ann: =[Ye:s.
24 Jen:  [it's such enexpe:nsive[set isn't it.]
25 Ann:                         [Where did she bu]:yth'm throu:gh.
26      Barker en[Stone(house).
27 Jen:          [Bahrker'n Stonehouse. Mm, .hhFazil nevuh liked
28      the manager in theah through,[Faz'l[w'dnevuh[go in theah,]=
29 Ann:                              [No:, [well he [he ' s    a-]=
30 Jen: =M-[hm,
31 Ann:    [No you see I tau:ght the little bo:y.
32 Jen: Ye:s,=
33 Ann: =En:: e-his (.) this: (.) the managuh marrie:d, .hh this
34      mothuh who already had a little bo:y.=
35 Jen: =Oh::ah[hm?
36 Ann:        [En I: had this little boy en he usetih come tsu
37      open night. .hhEn I hed heard thet'e wzvery stroppy .Eez
38      only y'know'e looks a kid imse:lf
39 Jen: eYe:s.
40 Ann: Anyway um (.) e-he 'eesort'v settle ddo:wn. .hh An' I(w)
41      (.) metth'm about a fortnight ago they've gotta little
42      guhrl'v their own no[w.
43 Jen:                     [Aoh::::.h
44 Ann: Uh b't e-eh's very offputting. Rah:ther (0.4) .t .hhh a
45      cocky little devil.=
```

At the beginning of this extract, Jen is telling Ann about the new furniture that their mutual friend bought. In particular, they are talking about scuffs on the new furniture caused by packing. Ann, in line 25, asks Jen about the name of the furniture shop, "Where did she bu]:yth'm throu:gh." Responding, Jen says, "Bahrker'n Stonehouse. Mm, .hhFazil nevuh liked the manager in theah through, Faz'lw'dnevuh go in theah,". In line 31, Ann picks up on the topic of the manager and starts to explain his personal life, that he married the mother of a little boy and now they have a little girl. At this point, Jen and Ann move from the topic of new furniture, which their mutual friend bought to a different story though a related topic.

In this extract, neither closing of the previous topic nor disjunctive movement to the

next topic are seen. Instead, a gradual and seamless transition from an ongoing topic is observed. As with English conversation, in my Japanese data it is observed that participants shift from an ongoing topic to the next topic in a stepwise way. The following extract illustrates how participants gradually move into a new topic in Japanese conversation.

(16)[Japanese students and an exchange student]
((Japanese students Ken and Uta are talking with an Italian exchange student Ann about studying languages.))
01 Ken: *italia no hito tte futsuu: nani go o*
Italian GEN people QT usually what language Acc
02 *benkyou suru no? ma eigo wa tabun mochiron*
study do Q well English Top maybe of cource
"What language do Italians usually study? Italians naturally study English, don't they?"
03 Ann: *u:::n sou desu ne eigo to furansugo*
hmmm right COP:POL IP English and French
04 *supeingo doit*[*sugo*]
Spanish German
"Hmm right, Italians study English, French, and German."
04 Uta: [*a:::*]
ah
"Ah"
05 Ken: [e:::]
oh
"Oh"
06 Uta: *ch*[*ikai kara ne*]
near because IP
"Because it is close."
07 Ken: [*a:: chikai kara*]
ah near because
"Ah, because it is close."
08 Ann: [*sou desu ne*]
right COP:POL IP
"Right."
09 Uta: *demo yo:roppa no hito tte minna*
but Europe GEN people QT everyone

10 *egio shabereru yo ne*
English speak IP IP
"But, everyone in Europe speaks English, right?"
11 Ken: *a:: umai desu ne, jibun haru yasumi ni*
ah good COP:POL IP myself spring holiday in
12 *nyu:ji:rando ittan desu kedo*
New Zealand go PST COP:POL but
"People in Europe speak English well. I went to New Zealand during spring break though."
13 Uta: *doko itta no nyu:ji:rando no*
where go PST Q New Zealand GEN
"Where did you go in New Zealand?"
14 Ken: *nyu:ji:rando no werinton.*
New Zealand GEN Wellington
"Wellington in New Zealand."

Ken, Uta, and Ann talk about what language Italians study from lines 1 to 10. Then Ken, in lines 11 and 12, starts talking about his studying English in New Zealand for spring break. At this point the focus of their conversation shifts from what language Italians study to Ken's studying English abroad. What is conspicuous in this extract is the manner in which the transition from the previous topic to the next one is carried out in a linked fashion.

3.2.2.2. Disjunctive Topic Shift

Unlike stepwise topic shifts, a disjunctive topic shift is a way of moving to a new topic or a new aspect of the current topic by marking boundaries with disjunctive markers. Moreover, in the case of a topic shift, it is frequent to observe a turn initiated with a disjunctive marker. It signals that the following talk is not topically coherent with the adjacent prior talk (Jefferson, 1978, 1984), as can be seen in the following extracts.

(17) [GTS:II:2:64, Jefferson, 1978, p. 220]
01 Roger: The cops don't do dat, don't gimme that shit I live in
02 the Valley.

```
03        (0.5)
04 Ken:   The cops, over the hill. There's a place up in
05        Mulholland where they've-where they're building those
06        hous [ing projects?
07 Roger:      [Oh have you ever taken them Mullhollan'time trials?
08        .hh You go up there wid a girl. A buncha guys'r up there
09        an [STORY]
```

Roger's topic shift, in line 7, is prefaced with a disjunctive marker of topical discontinuity.

The following example is from a Japanese conversation between students. Similar to the English conversation presented above, one speaker exploits a disjunctive marker "*a* (oh)" to shift the topic.

```
(18)[Japanese Student]
01 Uta: kasa     ga  sase nai kurai sugoi desho?
        umbrella SUB use NEG  about very  COP:TAG
        "There are gusty winds so one can't use an umbrella,
        aren't there?"
02 Ken: kasa     daremo motte nai      ssu=
        umbrella nobody have  have NEG COP
        "Nobody has an umbrella."
03 Uta: =sasa nai yo ne=
          use  NEG IP IP
        "Nobody uses an umbrella."
04 Ken: dakara  kasa     motte soto    deyou   to
        because umbrella have  outside get  out if
05      suru to omae dame da  tte iware te
        do   if  you  bad  COP QT  said  QT
        "So when I tried to go outside with my umbrella, I was told
        that I should not."
06 Uta: a: ho:musutei shiteta no?
        oh  homestay    did   Q
        "Oh, did you do a homestay?"
07 Ken: ho:mustei shite ta=
        homestay   do   did
        "I did a homestay.
```

```
08 Uta: =he::: uchi  ne musuko  ga nyu:ji:rando  no=
         really home IP my son Nom New Zealand  in
09       koukou      itte ta   no
         high school  go  did  IP
        "My son used to go to a high school in New Zealand."
10 Ken: =a, sou   nan  desu    ka?=
         oh  right what COP:POL Q
        "Oh, is that so?"
11 Uta: =ma: kuraisuto cha:chi nan  dakedo
         well Christchurch     what but
        "But he went to a high school in Christchurch."
```

Uta and Ken are talking about the city of Wellington, which is well known for having gusty winds. Uta, in line 6, shifts a topic with the disjunctive marker, "*a* (oh)". With this "*a* (oh)", Uta and Ken's conversation shifts focus to the homestay story and away from the story about Wellington's gusty winds.

As the two examples above illustrate, when a speaker in either English or Japanese is about to move into a new topic, the recipient may be signaled or the topic marked by a turn-initial component that projects the shift to come.

3.3. Repair Organization

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 another 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.

Of the four types of repair trajectories listed above, three can be seen in the data set under consideration in this dissertation: self-initiated self-repair, other-initiated self-repair, and other-initiated other-repair.

3.3.1. Self-Initiated Repair

As described above, there are two types of self-initiated repair: (a) self-initiated self-repair, in which the speaker of the problematic talk initiates and carries out the repair, and (b) self-initiated other-repair, in which the speaker of the problematic talk only initiates the repair while another speaker carries out the repair. I will now discuss the phenomenon of self-initiated self-repair and self-initiated other-repair, but I dispense with a discussion of self-initiated other-repair as it is not relevant in that this phenomenon was not found in my data.

The practice of self-initiated self-repair is performed within the same turn. To put it another way, same-turn repair means that the repair is initiated by the speaker who produces a trouble source prior to completion of the turn in progress. Schegloff (2013) found that same-turn repairs are overwhelmingly implemented as same-TCU repairs.

Self-initiation of repair within the same turn is often observed to be achieved through cutoffs, sound stretches, and pauses, which display the possibility that the repair is about to begin (Schegloff, Jefferson, & Sacks, 1977). Extracts (19) and (20) below illustrate how a speaker initiates repair.

(19)[GTS:1:2:11, Schegloff, Jefferson, & Sacks, 1977, p. 363]
Ken: Sure enough ten minutes later the bell r-the doorbell rang...

Although the cut-off item "r", which is likely to be the beginning of "rang", is not an error, Ken deals with it as a trouble source and initiates a repair by adding "door" to "bell," thus indicating the type of bell, and then continuing with "rang".

The next example of a repair operation is done in such a way that a speaker replaces a trouble source with another item in the same turn.

(20)[GTS: 5:33, Schegloff, Jefferson, & Sacks, 1977, p. 370]
Roger: We're just working on a different thing, the same thing.

In Extract (20), the trouble source appears to be a problem in Roger's word selection. Repair is initiated by replacing the phrase "a different thing," with "the same thing."

Schegloff (1979) notes that various types of repair initiation are frequently seen in combination in a repair segment. Here is one example.

(21)[Car Conversation, Liddicoat, 2011, p. 216]
01 Sasha: o:h we saw some briyant ones recently, like uhm (1.0) oh
02 what was that one about- (0.4) like Double In-(.)
03 Indemnity= n like lots of movies from the thirties that
04 ha-had amazing plot lines?
05 (0.9)some of them were really full on: like um: (0.3)
06 A Place in the Sun?

Sasha starts searching for the name of a film with the utterance "uhm" and a 1.0-second silence. In line 2, she cuts off the talk at "Double In-" and it is followed by a brief pause. Finally, she produces the second part of the name of a famous film, "Indemnity". Therefore, in this example, the repair initiation is achieved through a cutoff and a pause.

Similarly, in Japanese conversation, in most cases, self-initiation of repair is accomplished within the same turn. Here are two examples in Japanese.

(22)[Japanese Student 1]
01 Ken: *zenki* *de* (.) *ichi-ichi* *tani*.
first semester in one one credit
"One credit in the first semester."

Ken says, "*zenki de* (in the first semester)" followed by a micropause, and he halts his talk at "*ichi* (first)" and then reformulates with, "*ichi tani* (one credit)", thus accomplishing the repair in the same turn.

(23)[Mum and Son]
01 Mum: *datte sa:: ofuro no tokoro midori ni natte ta mon.*
because bath Gen place green to become PST
"Because the bath became green."
02 (.)
03 Mum: *ao-aomidori* *ni natte ta mon.*
blue blue-green to become PST
"The bath became blue-green."

Mum complains, in line 1, that her son dyed his hair in the bath causing the bathtub to turn green. After a brief pause, she cuts off the talk, in line 3, at "*ao* (blue)", repeats the "*ao* (blue)" with the addition of "midori (green)", thus constructing the rephrase "*aomidori* (blue-green)" and accomplishing the repair proper.

In this section, I illustrate through standard examples the phenomenon of self-initiated other-repair, which is the second type of self-initiated repair.

(24)[BC: Green: 88, Schegloff, Jefferson, & Sacks, 1977, p. 364]
01 B: He had dis uh Mistuh W-whatever k-I can't
02 think of his name, Watts on, the one thet wrote// that piece,
03 A: Dan Watts.

B seems to be having difficulty recalling the name of a person, which turns out to be "Dan Watts" as shown by A's later production of this name. B cuts off production of his utterance at "W", what eventuates as the first sound of the person's name, and at the sound "k". He then

explicitly states his difficulty, "I can't think of his name,". B then makes another try with, "Watts on", and provides a clue as to the individual's appellation. With provision of the possible name and a reference clue to identification, A completes the repair with the full name, "Dan Watts."

The example below illustrates self-initiated other-repair occurring in a Japanese conversation (not from the data set used for analysis for this dissertation). Similar to the English conversation examples shown above, self-initiated repair in Japanese conversation is often initiated through deployment of a word search (Takagi, Hosoda, & Morita, 2016).

```
(25)[Japanese Student 2]
01 Uta: nan  da  kke (.) are  shi:emu de yatteru ja::n
        what COP         that   CM   in   doing   COP
        "What was that? You know, the commercial?"
02      kiku   dake  de=
        listen only  in
        "Just by listening."
04 Ken: =a, hai hai supi:do ra:ningu desu    ka
        ah  yes yes speed   learning COP:POL  Q
        "Ah, yes, yes,  Speed Learning?"
```

Prior to this segment, Uta, a graduate student, and Ken, a university undergraduate student, were talking about how to improve their English conversation. In her turn, Uta indicates that she cannot remember the name of the English listening material advertised at that time on TV, thus initiating repair. Uta's utterance, "*kiku dake de*= (Just by listening.)" in line 2 provides a hint, and Ken responds with change of state tokens and a candidate for the repair, "Speed Learning", that carries out the repair.

In both the examples of English conversation and Japanese conversation, the repair was initiated through deployment of a word search. Hereinafter, I outline the phenomenon of other-initiated repair as it is manifested in its two forms of other-initiated self-repair and other-initiated other repair.

3.3.2. Other-Initiated Repair

In the previous section, I took a close look at self-initiated repair, specifically self-initiated self-repair, in which the speaker of the problematic talk initiates the repair and accomplishes the repair. However, although I discussed self-initiated other-repair above, there were no examples found in the data set under consideration here for this dissertation.

I will now discuss in detail the two types of other-initiated repair. First, I will outline other-initiated self-repair, in which the recipient of the problematic talk indicates a problem and the original speaker of the repairable accomplishes the repair. Second, I discuss other-initiated other-repair, in which the recipient of the problematic talk both indicates a problem and completes the repair proper. The extracts below, taken from the seminal paper on repair by Schegloff, Sacks, and Jefferson (1977), exhibit these two types of other-initiated repair.

(26) [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 in doing so only serves to locate the trouble source. He leaves the opportunity to carry out the repair proper to Ken. Ken accomplishes the repair of his previous utterance by rephrasing "waiter" to "waitress". This example illustrates other-initiated self-repair.

Presented below is an example of other-initiated other-repair.

(27) [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 (27) shows an example in which B initiates repair, other-initiated, for resolving a problem of understanding A's utterance " till uh Monday." Following A's utterance, which is later found to include a trouble source, B initiates and carries out an other-repair by displaying a possible understanding of some problematic part of A's turn, the specific day reference.

Many other-initiated repairs occur in the turn immediately after the trouble source. The next turn is the first structurally determined place for other-initiated repair, which has been termed 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?"), being the simplest 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 exactly what the trouble is (e.g., a particular word, or a problem of hearing or understanding). Extract (28) below illustrates the deployment of the open-class repair initiator "what?"

```
(28) [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 (28), 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 exemplifies how the recipient initiates repair in Japanese by employing an open-class repair initiator.

(29) [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 their sister's

childhood environment. In line 7, T initiates repair by uttering "*eh?*". S clarifies the potentially problematic utterance "*DOCCHI MO:* (both)" in the prior turn in line 5. In other words, S shows 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 receipt and acceptance by saying "*AAAaaaan.* (Oh:::::::.)" in overlap with S's utterance.

The extracts illustrated so far delineate 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 clarify what the problem is. This means that they are not a very strong means with which 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.

```
(30) [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
```

In this conversation, Sue tells Bob that she used to have difficulty sleeping because of the loud traffic near here home, "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", prefacing it with the word "all", which Sue produced in her previous turn. In line 6, Sue carries out the repair proper by saying the word "Semis".

Next, I will delineate an example in Japanese. In the interactional grammar of Japanese conversation, the subject and object are frequently omitted. This can oftentimes lead to difficulties in understanding. In such cases, repair can be initiated through identification of

whether the problem is the subject or the object by adding case particles to the question words "*nani* (what) " and "*dare* (who)" (Hayashi & Kim, 2015). Hayashi and Kim (2015) argued that "*nani* (what) and Japanese case particles are powerful resources for repair initiation in Japanese. In Extract (31) repair is initiated by the speaker through addition of the Japanese case particle "*ga*" to the question word "*nani* (what)."

(31)[Jun-clip2]
01 Mum: *kyou taihen dattanda yo.*
Today hard PST IP
"Today was hard."
02 Jun: *nani ga*
what SUB
"What?"
03 (2.0)
04 Mum: e, *Miri chan ga.*
Name TL SUB
"Miri chan."

In this case, Mum begins to talk about what happened to them on a certain day. Then J initiates repair by adding the Japanese case particle "*ga*" to the question word "*nani* (what)". By doing that, it indicates that the trouble lies in the missing subject. M says, "*Miri chan ga*", thus supplying a subject to her previous utterance, "*kyou taihen dattanda yo.* (Today was hard.)", and accomplishing the repair. As illustrated in this example, it is possible to clarify a trouble source by adding a Japanese case particle rather than using only question words when initiating repair.

The following serves to illustrate how repair is initiated through repetition of problematic items. Repeating the speaker's utterance from a prior turn is more specific when it comes to identifying problematic items as opposed to the deployment of interrogatives. The following cases show how recipients repeat a part of the speaker's prior turn to initiate repair.

(32) [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 their own previous utterance is somehow problematic in that A corrects it by replacing "selling" with "buying". In the next extract, translated from the original Japanese text, I present an example in which participants in Japanese conversation initiate repair by repeating the trouble source of the prior turn.

(33) [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 Ouji. Ouji is far away, isn't it? Besides."
05 Kouta: *Ouji?*
Ouji
"Ouji?"
06 Kumi: *Ouji tooi desu yo.*
Ouji far COP IP
"Ouji 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 Ouji)" and then Kumi again says the name of the place "Ouji", "*Ouji tooi desho shikamo* (Ouji 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 display examples of conversation in which the participants specify problematic utterances more precisely by indicating a possible understanding in the prior turn.

```
(34) [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 the initial 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 the country of Columbia rather than referring to Columbia University in Manhattan.

The next extract, also translated here from the original text in Japanese, illustrates how a Japanese speaker initiates repair by offering a possible understanding. Here, the interactants are discussing their past residences.

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

01 Kanako: *e, donokurai sunde ta no:?*
eh, how long live PST IP
"How long have you lived there?"

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 in a certain place. However, since Kanako's utterance does not specify a location, Miki initiates repair with a possible understanding, "*Chiba ni?* (In Chiba?)" In line 3, Kanako accomplishes repair by saying, "*u:n.* (Yeah.)".

Thus far, I have described other-initiated repair in both English and Japanese conversation as 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 immediately following the trouble source, and these techniques provide the speaker of the trouble source with an opportunity to carry out repair. In the context of outlining repair organization, Schegloff, et al. (1977) identified a preference

for self-repair in ordinary conversation. This refers to the way the system is designed so that the speaker of a trouble source has the opportunity to complete a self-repair prior to the occurrence of other-repair. One characteristic of the system is that the positions where self-repair occurs precede the positions where other-repair occurs, and this offers a structurally positioned first opportunity for the speaker of the trouble source to carry out the repair. If a repair is initiated by others, they still tend to only initiate the repair, leaving it to the speaker of the trouble source to perform the repair proper. That is to say, it is rare for others to actually perform the repair itself. In the case of other-initiated other-repair, it is usually performed in a mitigated form (Seedhouse, 2004; Liddicoat, 2011). The extract below illustrates this point.

(36) [Schegloff, Jefferson, & Sacks, 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 replacing it with "quail". He appends "I think.", possibly in order to mitigate the force of the correction.

The next extract is a Japanese conversation between a native English speaker and a native Japanese speaker. This example serves to illustrate other-initiated other-repair in Japanese.

(37) [Toranomon News: 27:54]
((Kent is a native English speaker, Kaori is a native Japanese speaker.))
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:POL  IP
         "Actually, Article 6 of that constitutional amendment
          prohibits judging public positions on the grounds of
          religion."
```

They are talking about an amendment in the Constitution of the United States of America. As Kent displays a problem producing a word through repetition of *"ryou*" in line 1, Kaori initiates repair and carries out the repair by producing "*riyu* (reason)" in a quiet voice. In line 4, Kent utilizes repetition of the word "*riyu* (reason)" to accept the other-repair.

As illustrated in the two extracts above, (36) and (37), when other-repairs occur, they are accomplished in mitigated ways. They will include markers of uncertainty such as "I think" as seen in Extract (36) or be produced in a quiet voice as in Extract (37).

3.4. General Overview of Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that affects communication, social interaction, and behavior. It is defined as a "spectrum" disorder because its symptoms vary widely from person to person and ranges from mild to severe (American Psychiatric Association, 2013).

ASD is often diagnosed in early childhood, typically by the age of 2 or 3, and the symptoms may include delayed or absent speech, difficulty making eye contact, repetitive behaviors or interests, and difficulty with social interactions. There are many different factors that may contribute to the development of ASD, including genetic and environmental factors

(American Psychiatric Association, 2013). According to the American Psychiatric Association (APA) (2013), the prevalence of ASD worldwide is estimated to be approximately 1% of the general population. However, there is some variation in prevalence estimates across different countries and regions. Some studies have reported higher or lower prevalence rates, which may reflect differences in diagnostic criteria, screening methods, and other factors. On the other hand, the cumulative incidence of autism in Japan is reported to be 2.75% for 5-year-olds (Sasayama, Kuge, Toibana, & Honda, 2021).

Some common symptoms displayed by people diagnosed with ASD include difficulty with social interactions and communication, restricted interests, repetitive behaviors, and sensory sensitivities. For example, individuals with ASD may have difficulty making eye contact or engaging in social conversation. Additionally, they may engage in repetitive behaviors like rocking or hand flapping. These features of people diagnosed with ASD were first identified by Leo Kanner, an American psychiatrist who is considered to be one of the pioneers in the field of autism research. Kanner published a groundbreaking paper in 1943 called, "Autistic Disturbances of Affective Contact," in which he described a group of children who exhibited a striking inability to relate to other people in a typical way. This paper is often considered the first description of autism as a distinct disorder. This avenue of research has expanded to include many studies that build on and support the findings of Kanner's report. For example, Baron-Cohen (1989) noted that people diagnosed with ASD often struggle with social communication, which includes difficulties with the pragmatic aspects of language, such as understanding and using comprehensible language, taking turns in conversation, understanding and using social cues, and adjusting communication styles to suit different contexts and listeners. Moreover, Tager-Flusberg (1996) studied the language and communication disabilities observed in people with ASD within the framework of the "theory of mind" hypothesis, which posits that they have severe difficulties with comprehending other people's actions during interaction. In addition, other distinctive

features of people diagnosed with ASD that have been reported are that they have problems with initiating conversations, maintaining ongoing topics, following abrupt topic shifts, and that they also tend to provide too much or too little information (Klin, Volkmar, & Sparrow, 1992; Laugeson, Frankel, Mogil, & Dillon 2009; Rutter, 1983).

In recent years, autism research has been focused on early detection and early intervention. Researchers are looking at ways to identify autism in children as early as possible so that they can receive early intervention and treatment. Early detections and early interventions can have several benefits for those diagnosed with ASD, including improved communication, social skills, and behavior. Studies have shown that children who receive early intervention have better outcomes in terms of language development, social communication, and behavior. One study found that children who received intervention before the age of 2 demonstrated greater overall improvement than those who received some type of intervention after that age (Dawson et al., 2010). Furthermore, according to Vivanti et al. (2014), intensive intervention can have the expected effect of improving the social interaction skills of children with autism. Additionally, parents' participation in intervention programs can also reduce the severity of autism.

3.5. Conversation Analysis of Autism Spectrum Disorder

A significant amount of research has demonstrated the importance of examining Autism Spectrum Disorder (ASD) from an interactional perspective (Dickerson, Rae, Stribling, & Dautenhahn, 2005; Local & Wooton, 1995; Maynard, 2005; Ramey & Rae, 2015; Tarplee & Barrow, 1999). The use of conversation analytic techniques in research on people diagnosed with ASD can be important for several reasons. First, people diagnosed with ASD often have difficulties with social interaction, which affects their ability to participate in conversations. By using Conversation Analysis (CA), it is possible to examine the details of conversations between individuals with ASD and their conversation partners,

and identify specific communication difficulties (e.g., Antaki & Wilkinson, 2012; Dickerson, Rae, Stribling, & Dautenhahn, 2005; Solomon, 2004).

Second, CA can provide insight into how people diagnosed with ASD use communication strategies to compensate for their social difficulties. For example, some individuals diagnosed with ASD may utilize formulaic utterances or echolalia to initiate and maintain conversations. Analyzing these conversational strategies enables a better understanding of how those diagnosed with ASD manage their social communication challenges (e.g., Geils & Knoetz, 2008; Local & Wooton, 1995; Sterponi, de Kirby, & Shankey, 2015; Stribling, Rae, & Dickerson, 2007).

Third, CA can be a powerful tool to ascertain optimum interventions for children diagnosed with ASD. The difficulty of social interaction is a common characteristic among children thus diagnosed. Through the use of CA, specific behaviors that are problematic for such children can be identified. For example, CA can be employed to analyze communication patterns between these children and their caregivers or teachers. By examining the structure and content of these interactions, it is possible to determine areas of difficulty for the children, and interventions and strategies can then be developed to improve their communication skills (e.g., Geils & Knoetze, 2008; Rae & Ramey, 2020; Robins, Dickerson, Stribling, & Dautenhahn, 2004).

In summary, the application of the CA methodology in research on people diagnosed with ASD may provide valuable insights into the difficulties experienced in social interaction by these individuals.

3.6. Chapter Summary

In this chapter I provided a review of studies directly related to the topic explored in this dissertation. In the first section, I first introduced the field of conversation analysis and the basic principles of conversation analysis that researchers pay attention to when

proceeding with their analyses. Then, I described the main types of organizations observed in conversation analysis: (a) turn-taking organization, (b) sequence organization, and (c) preference organization. In the second section, I discussed topic management. Particularly from the perspective of conversation analysis, I described how participants in ordinary conversation initiate and shift a topic. In the third section, I outlined repair organization. In particular, I summarized the various aspects of self-initiated self-repair, self-initiated other-repair, other-initiated self-repair, and other-initiated other-repair observed within the data used in this study. In the fourth section, I gave an overview of the currently known characteristics of individuals diagnosed with ASD, followed by a review of the ASD research found to be of significance to this study. In the final section, I classified and discussed the effectiveness of ASD research that employs CA into three categories: (a) examining the details of conversations between individuals diagnosed with ASD and their conversational partners to determine specific communication challenges (b), providing insight into what communication strategies people diagnosed with ASD use to compensate for their social difficulties, and (c) identifying areas of difficulty for children diagnosed with ASD and developing interventions and strategies to improve communication skills.

CHAPTER 4

METHODOLOGY

This chapter provides an overview of the data analyzed, participants, the methods applied to analysis of the data, and the ethical issues of significance to this study. These topics are covered over the following seven sections: an outline of how the data were collected, transcribed, and analyzed and why this set of data were employed for this study; a description of the participants and their relation to each other; the ethical issues considered in the process of this research; how reliability is addressed in qualitative research and in this dissertation; how the validity is viewed in qualitative research and handled in this dissertation; the significance of objectivity in qualitative research and this study; and finally, this chapter concludes with a brief summary of its contents.

4.1. Data

The empirical data analyzed for this dissertation cover a total of 11 hours of two sets of video recordings of naturally occurring interaction. The first set of recorded interaction occurs between a Japanese mother and her 17-year-old son diagnosed with ASD. The second set of interaction is between an Australian mother and her 15-year-old son diagnosed with ASD. In consideration of the characteristic of people with ASD who feel uneasy about the unfamiliar environment, most of the video recording was conducted by each mother in the privacy of their own home. Since the Japanese adolescent with ASD was accustomed to being recorded with a video camera owned by the family, his mother used that video camera. A total of 10 hours and 30 minutes of interaction with this mother and son dyad was recorded in their home in the suburbs of a major city in Japan. On the other hand, as the Australian adolescent diagnosed with ASD was not accustomed to being recorded with a video camera, his mother used an iPad, which she often used during interactions with him. This data set,

recorded in their home in the suburbs of a major city in Australia, captured 30 minutes of interaction between the mother and her son. In both of the contexts, the Japanese and the Australian, considering the characteristics of people diagnosed with ASD who are uncomfortable with changes in their environments and strangers, the data were collected in their living rooms and their kitchens.

4.2. Participants

In the current study, the two pairs of participants involved are a Japanese mother and her 17-year-old son diagnosed with ASD, and an Australian mother and her 15-year-old son diagnosed with ASD, In order to maintain the confidentiality of the participants, both of the adolescents' names have been anonymized by using the pseudonyms Ten for the Japanese son and Duke for the Australian son. The mothers are both referred to in their respective transcripts as Mum. (See Table 1 for details concerning the participants). Ten was diagnosed with ASD with intellectual disability at the age of 3 by a psychiatrist and a community health nurse. The medical examination occurred because of a noticeable language delay and recurrent communication problems that his mother noticed when compared with children of the same age. At the time of data collection, he was attending a special-needs school for children with Down Syndrome, intellectual disabilities, and children diagnosed with ASD. Duke was diagnosed with ASD without intellectual disability between the age of 4 and 5 by a speech pathologist, pediatrician, and a clinical psychologist. The medical examination was brought about by his mother due to his noticeable speech delay compared to his siblings and some problematic behavior such as tantrums and screaming. When the data collection occurred, he was attending a special-needs school for children with ASD, Down Syndrome, mental health disability, and intellectual disabilities, which provides specialized learning outside the standard school curriculum.

A summary of the data employed for analysis in this dissertation, outlining the source

country, participants, and the approximate length of video-recording is presented in Table 1 below.

Table 1

An Overview of the Data and Participants.

Source Country	Participants	Length (approx.)
1. Japan	Ten, a 17-year-old diagnosed with ASD with intellectual disability His mother	10hr 30min
2. Australia	Duke, a 15-year-old diagnosed with ASD His mother	30 min

4.3. Methods

All the collected data were transcribed and analyzed using conversation analytic methodology. The researcher repeatedly viewed the original recordings and transcribed them in detail. The transcription conventions were adapted from Gail Jefferson (Atkinson & Heritage, 1984), which are the most commonly employed system in conversation analytic research (see Appendix A). The transcription of a Japanese utterance in this study consists of three lines. The first line is the original Japanese utterance (in *italics*), the second line is a word-by-word translation (see Appendix B), and the third line is the glossed English translation (plain type in double quotes). After transcribing and repeatedly observing the data, some phenomena were observed and analyzed using the CA methodology. Given the avoidance of observer's preconception in analyzing data, this study utilizes a data-driven approach. Contrary to many other research methods, conversation analytic research does not test and build up hypotheses. Analysis of the data begins without a preconceived goal or specific focus on any interactional phenomenon. One basic notion of CA is that researchers should discard their preconceptions of what is and what is not important in the data so as to

eschew any bias projected onto the data. In other words, researchers should do what is referred to as "unmotivated looking" (Hutchby & Wooffitt, 2008; Psathas, 1995; Sacks, 1984), in order to allow the orientations of the participants themselves to come to the fore as they work to understand each other through the construction of turn sequences. That is to say, conversation analytic study approaches the data only from the participants' perspectives in relation to their actions (Goodwin, 1984).

In what follows, I describe the procedures that were taken to analyze the present data. In analyzing the data, I used three steps that are commonly taken in conversation analytic studies. First, I transcribed all verbal production and some of the interactionally significant nonverbal features of a Japanese mother and her son diagnosed with ASD and an Australian mother and her son diagnosed with ASD by repeatedly viewing the collected video data. During the transcription process I made a number of observations on the developing transcripts and made notes on potentially relevant interactional phenomenon. After that, I paid special attention to the sequential context and the orientation of the participants. Second, I re-transcribed a single excerpt that included the phenomenon of interest and made detailed descriptions of verbal and nonverbal aspects. In making detailed descriptions, I scrutinized the utterance in question related to the prior turn, the action accomplished by the utterances, the sequential position, the design, the utterance related to the subsequent interaction, and some nonverbal features, such as gestures and gaze direction. After that, I made a collection of similar instances by scrutinizing of the entire data set, then I made a formal description of the focal phenomenon by gradually refining the previous description though repeated observations and a number of data sessions with experts in the field. Finally, I refined the analysis of each instance of this study.

4.4. Consideration of Ethical Issues

Ethics are an important part of any research study. Researchers constantly encounter

ethical issues that need to be considered in order to protect the participants' privacy and avoid any bias. In particular, as conversation analytic studies work with naturally occurring data collected from human participants, which can be highly sensitive, delicate, and private, the management and protection of these data are of the utmost important. The American Psychological Association (2002) published ethical guidelines for all kinds of studies. According to these guidelines, it is imperative that researchers respect the autonomy of all participants, obtain written consent, take particular care to handle data in a safe and secure manner, and protect the confidentiality and privacy rights of their participants. In what follows, I will discuss these ethical issues in detail and explain how they were applied to the current research project.

The first ethical issue to be considered is that researchers should respect the autonomy of participants. In other words, researchers should respect participants' willingness and give them the right to choose whether or not to participate in research projects. The most legitimate way to confirm this point is to acquire informed consent from participants. It is essential that researchers provide participants with sufficient information about what is required of their participation. Participants also need to know how the data will be used, stored, and disseminated. In addition, participants have to be provided with opportunities to withdraw freely from the research at any point in the process. However, informed consent with adults or children with ASD is quite complicated. ASD research using naturally occurring data requires that extra consideration be given to the essential ethical issues (Dickerson & Robins, 2017). According to the ethical guidelines of the Japanese Ministry of Health, Labor, and Welfare (2015), even with socially vulnerable people who may not have sufficient ability to understand the details of the project, researchers are obliged to do their best to provide explanations concerning the benefits and disadvantages resulting from the participation in the research. However, as people with ASD oftentimes lack the ability to agree to participate in a study, researchers need to obtain consent from those who are most

likely to understand their intentions. Similarly, Arscott, Dagnan, and Kroese (1998) suggest that particular care must be given when participants have limitations in terms of their comprehension of the risks and benefits involved in taking part in a project. In cases in which it is difficult in obtain written consent from participants because it may be deemed that they might not clearly and fully understand the purpose of the study, researchers are obliged to obtain consent from a person in a position of authority, such as a parent, caregiver, or legal guardian (O'Reilly, Ronzoni, & Dogra, 2013).

The second ethical issue concerns the public dissemination of the research findings. Researchers must be responsible for the confidential rights of their participants. When dealing with data that includes confidential information about the participants, researchers must protect the personal information and strive not to harm participants by inappropriately allowing their private information to be made available to the public. Therefore, deliberate management and protection of data are crucial for protecting participants. This is especially important in conversation analytic studies, as the researchers' project procedures are based on data recording the actual life of the participants. Researchers are required to take into consideration of any possible risk relating to participant identification and to protect against any possible revelation of the identification of participants. To prevent participants from being identified and to ensure anonymity, it is essential to change identifying details such as participants' names, place names, and other information that could be used to recognize participants.

During the process of this research, the ethical issues discussed above were carefully considered and properly applied. All participants were informed of the purpose of the research project and assured of their privacy. Specifically, I explained to the participants and their caregivers that the current study's purpose is to: (a) explore the pragmatic competence of people diagnosed with ASD, (b) disseminate the result to society by recording and analyzing their interaction, (c) enhance the public's understanding of people with ASD. In addition, they

were informed that the video-recorded data would be observed only by professionals, such as university professors, researchers, and scholars. Besides, they were given information that their name would be replaced with pseudonyms for protecting their identity. After a detailed explanation of the research purpose, the data use, and a guarantee of the participants' privacy, both the Japanese family and the Australian family voluntarily agreed to participate in the project and signed the informed consent forms. A sample of the written informed consent form is attached in Appendix C and Appendix D.

4.5. Reliability in Qualitative Research

Conversation analytic research is classified as qualitative research since practitioners perform a detailed analysis of a single case phenomenon (Clayman & Gill, 2012). Yet, from the perspective of collecting and systematically examining a large number of conversation data, including specific phenomena, which is the basis of conversation analysis, it can be considered that some parts of the study are similar to quantitative research (Takagi, Hosoda, & Morita, 2016). In both qualitative and quantitative research, the key concept of reliability is whether the results of the research are consistently stable. Reliability can be observed in two fundamental ways: internal reliability and external reliability. Internal reliability relates to the consistency of data collection, analysis, and interpretation. Alternatively, external reliability relates to whether comparable results can be obtained when other researchers replicate the study with different data sets.

Regarding internal reliability, many research methodologies do not present their raw data in publications. Thus, the reliability of the researchers' analyses cannot be easily scrutinized by other researchers (Seedhouse, 2004b). By contrast, CA research methodology provides a detailed transcript of data, along with analysis and interpretation of the author in publications. This allows readers to analyze the data themselves and verify the analytical steps taken by the author and the validity of the analysis and claims. In addition to this, in the

course of building up the analysis of data, CA practitioners present their data in a number of data sessions to discuss their interpretations with other practitioners. Most importantly, the data and analysis are available for other practitioners to confirm or revise.

As for external reliability, it is ensured through the presentation in publications of the transcripts analyzed by the researchers. Furthermore, recently, many CA researchers disclose audio and video data as well as transcripts through digital links. By doing so, other researchers can replicate the study, and consequently, external reliability is substantiated.

In the process of writing my analysis, I repeatedly presented my data in many data sessions and discussed the descriptions of the focal phenomena with other CA experts. By incorporating their comments and ideas and revising my analysis, the consistency of the interpretations was established. In addition to the discussion and analysis, transcripts of extracts used in my dissertation are made public in the thesis so that other researchers can reanalyze the data.

4.6. Validity in Qualitative Research

Validity is concerned with the extent to which a study and the results obtained from the study support what the study was designed to elicit (Brown, 1998). According to Bryman (2001), validity in qualitative research can be classified into four categories: internal validity, external validity, ecological validity, and construct validity. What follows is a summary of each of these in turn and a discussion of how they are related to research in the study of talk in interaction.

Internal validity is concerned with the soundness of the research, integrity of analysis, and credibility of the findings. In CA studies, unlike other research methodologies, internal validity is ensured by developing the emic perspective of the participants (Pike, 1967) in the data analysis, which means maintaining the focus on the participants' perspective rather than the analyst's interpretation. Ten Have (1999) defines some features of the CA practice that are

necessary in order to maintain validity from an emic perspective: (a) focusing on the minute interactional detail; (b) avoiding use of existing theories of language, society, psychology, and so forth to explain the interaction; and (c) resisting application of any external context such as participants' status, gender, race, and so on to interpret the interaction. In addition, Hosoda (2002) explains some aspects of CA studies that ensure validity. The first aspect Hosoda (2002) discusses is that researchers in CA studies implement unmotivated looking of the data without deciding a priori what to analyze. Hence, rather than deciding what to analyze in advance, the focus of analysis emerges out of repeated observations of the data. Second, researchers can obtain more valid and accurate findings by repeatedly listening to and observing the interaction in the original data and examining corresponding transcripts. Third, it is common for CA researchers to report only what is publicly displayed in the participants' interactional conduct. Thus, claims made in CA studies are based on participants' understandings in generating conversations over and above the analyst's interpretations. Moreover, CA studies attach the greatest importance to analyzing and interpreting data recorded in natural settings to guarantee the credibility of the findings. Finally, deviant case analysis, the analysis of cases that differ from the general collection, is a meaningful process in CA studies, and the analysis of deviant cases makes the research more reliable. The most serious problem in research is neglecting phenomena that contradict the researcher's claims or concepts (Maxwell, 1966). By focusing on deviant cases rather than discarding them, CA studies can create a more general understanding that embodies both the regular cases and the irregular cases (Schegloff, 1968).

External validity refers to the extent to which the findings of a study can be generalized beyond the specific research context. A typical criticism of qualitative studies is that it is context-bound and thus weak regarding external validity. Perakyla (1997), however, points out that generalizability is "closely dependent on the type of conversation analytic research" (p. 214). In the study of analyzing single cases on a case-by-case basis, the object of CA

studies is to gain an understanding of all related phenomena in general. Furthermore, the major object of CA studies is to uncover the order and mechanisms that produce order in interactions by accumulating the results of the analysis. Therefore, the results are broadly generalizable.

Ecological validity is concerned with the applicability of the findings to people's everyday life. In CA research, CA practitioners typically record naturally occurring talk and attempts to depict how participants in the data accomplish social actions through talk. Therefore, CA research is considered stronger than other research methodologies in terms of ecological validity.

Construct validity is not applicable to the research accomplished for this dissertation because in conversation analysis the phenomena under consideration are studied directly rather than through construction of constructs to represent abstract notions.

4.7. Objectivity in Qualitative Research

Objectivity in qualitative research signifies the extent to which investigations and results are objectively verified. According to Davis (1995), in most qualitative research, objectivity is referred to as confirmability. Confirmability signifies the extent to which descriptions are consistent with objective facts, but it also confirms the presence of data that conforms to the perspectives, standpoints, and values espoused by the researcher (Hosoda, 2002). In CA studies, excerpts of the data on which the analysis and interpretation is based are made available to readers. In other words, the objectivity of the analysis and interpretation is constantly and repeatedly verified by the readers themselves. Furthermore, the objectivity of CA studies is extremely high since the data is presented to other CA practitioners through a number of data sessions before the study results are widely published.

The methodology employed in this dissertation, as described above, can be judged to have reliability, validity, and objectivity.

4.8. Chapter Summary

In this chapter, I first presented the data analyzed in this study. Next, I considered the ethical issues. Then, I discussed the justification of the methodology adopted in the current study, with a particular focus on reliability, validity, and objectivity in qualitative research. In the remaining chapters of the present study, I will present my analysis of instances from naturally occurring interactions, following the methodology and ethics of CA studies.

CHAPTER 5

TOPIC MANAGEMENT OF ADOLESCENTS DIAGNOSED WITH AUTISM SPECTRUM DISORDER

5.1. Introduction

This chapter focuses on how adolescents diagnosed with ASD, who have been found to have difficulties maintaining, initiating, and shifting conversations with others, manage their interaction. The first section of this chapter reviews studies showing that people diagnosed with ASD have difficulties in managing topics as one of the most prominent features of their talk. The subsequent section presents examples in the data set used in this study, divided into five parts, which examine: (a) how a Japanese adolescent with ASD utilizes routinized questions to initiate conversation with the mother, (b) how a Japanese adolescent with ASD maintains interaction through routinized questions, (c) how an Australian adolescent with ASD initiates conversation with the mother, (d) how an Australian adolescent with ASD shifts a topic, and (e) what strategies Japanese and Australian mothers employ for maintaining conversations with their sons with ASD.

5.2. Overview of Topic Management of People Diagnosed With ASD

This section primarily provides a brief overview of the way people diagnosed with ASD manage conversational topics with others in a social context.

In social interaction, conversations with others are established by proffering a topic to initiate a conversation and by others responding appropriately to the topic proffered. Typically developing children master in their preschool years a variety of conversation skills that maintain interaction with others. Yet, research has extensively documented that people with ASD manifest difficulties initiating conversations, shifting topics, and maintaining provided topics. These are major obstacles for people with ASD when interacting with others

(Koegel, Park, & Koegel, 2014). Bauminger-Zviely, N., Karin, E., Kimhi, Y., & Agman-Ben-Artzi, G. (2014) reported that in a comparative evaluation of 10- minute spontaneous peer talk between a group of preschoolers with high-functioning autism and a group of typically developing preschoolers, children in the high-functioning autism group tended to shift topics more abruptly than those in the typically developing group. Hale and Tager-Flusberg (2005), investigating the developmental trajectory of discourse skills and theory of mind in 57 children with ASD, also pointed out the children's difficulties with initiating and maintaining conversations. Likewise, Battaglia and Mcdonald (2016) noted that children with ASD rarely initiate conversation. They therefore advocate for the benefits of employing scripts and semantic mapping in order to facilitate the children's conversations. Thus, these studies conclude that managing interaction with other people is a major hurdle for people with ASD.

A number of studies have been carried out on people diagnosed with ASD by employing conversation analysis as a way of highlighting interactional problems. Dobbinson, Perkins, and Bourcher (1998), in a case study of a woman diagnosed with ASD, focused on her impairments in conversation, especially her inability to initiate and maintain conversations with other people. Rendle-Short (2003) analyzed a single telephone conversation among an eight-year-old girl diagnosed with ASD, a peer, and an adult. Analysis showed that the girl did not seem to be able to continue the conversation or to initiate a new topic that was not connected with her purpose for calling although she was, for all fundamental purposes, successful in fulfilling the purpose of the phone call, which was to ask questions. In addition, Geils and Knoetze (2008) investigated the social interaction skills of a six-year-old boy diagnosed with ASD by means of an intervention program aimed at developing the child's communication skills. They pointed out that a child diagnosed with ASD has difficulties initiating and maintaining conversations, which in turn makes social interactions difficult. As described above, previous research has pointed out that people diagnosed with ASD exhibit multiple challenges when communicating with others. In Section

3, through analysis of the data set collected for this research, I make a detailed examination of natural conversations between Japanese and Australian adolescents diagnosed with ASD and their mothers. The part of the interaction that is of central interest to the analysis here is highlighted in grey.

5.3. Initiating a Topic With Routinized Questions by a Japanese Adolescent Diagnosed With ASD

As mentioned above in Section 2, people diagnosed with ASD have been found to manifest an impairment in initiating conversation (Dobbinson, Perkins, & Bourcher, 1998; Rendle-Short, 2002; Hale & Tager-Flusberg, 2005; Geils & Knoetze, 2008; Bauminger-Zviely, Karin, Kimhi, & Agam-Ben-Artzi, 2014; Battaglia & Mcdonald, 2016). However, the following examples elucidate how Ten (T), a Japanese adolescent on the spectrum, proficiently utilizes routinized questions to initiate new sequences. The part of the interaction that is of central interest to the analysis here is shown in bold.

In Extract (38) below, Ten initiates a conversation after a lapse. At the opening, his mother inquires as to his day at school.

(38)[Cat park 6:04]
01 M: °*u::n*° *a,* (.)*Ten-chan kyou jyouho no jikan*
Hmmm Name-TL today information GEN time
02 *ni*: (3.0)*kore¿ nani o shirabete kureta no::*
at this what Acc search receive PST Q
"Ten-chan, what did you search at information class today?"
03 T: *jyouho yatta::=*
information do PST
"I did information."
04 M: *u::n* (1.0) *kyushoku no:* (.) *reshipi o yomu::¿*
Hmmm lunch GEN recipe ACC read
05 *Kensaku* [*shita no*]
search for do:PST Q

"Did you read the lunch recipe introduction?"

06 T: [*ganbatta*]=
work hard: PST
"I worked hard."

07 M: =*fu::n* (.)<*a::oishiso::*>
Hmmm looks delicious
"It looks delicious."

08 (17.0) ((M is making dinner at the kitchen.))

09 T: ***otousan mousugu::***
dad coming home soon
"Is Dad coming home soon?"

10 (.)

11 M: *un, otousan wa::* (1.0) *shichi ji gurai ka na::*
yeah dad TOP seven time about Q IP
"Yeah, Dad is coming home at about 7:00."

The mother's turn opens with a question asking Ten what he searched in his information study class. In response, in line 3, Ten produces, "*Jyoho yatta::* (I did jyoho.)" The mother accepts his answer with "*u::n* (yeah.)" After accepting the answer, she redesigns the question in lines 4 to 5, but Ten just responds with his routinized response, "*ganbatta* (I worked hard.)". The mother then accepts the answer and completes the sequence with an evaluation "*oishiso::* (It looks delicious.)" After that, there is a long silence during which the mother continues preparing dinner in the kitchen. After a 17.0-second lapse, Ten initiates a sequence with a routinized question, "*otousan mousugu::* (Is Dad coming home soon?)" Then the mother responds to him with "*un. otousan wa::*(1.0) *shichi ji gurai ka na::* (yeah, Dad is coming home at about 7:00.)" The way in which Ten initiates a new topic is similar to an itemized news inquiry proposed by Button and Casey (1985). However, since the mother's action only answer's Ten's inquiry, it only results in filling the knowledge gap.

Similar to the above extract, in the following excerpt, Ten begins interaction with his mother by utilizing a routinized question after a lapse.

(39)[Cat park 9:44]

01 M: *gyoza suki de sho,*
dumpling like COP: TAG
"You like dumplings, don't you?"

02 T: *dai suki.*
very. much like
"I like them very much."

03 M: °*ne*°
IP
"Right?"

04 (62.0)
((T is playing with tablet while watching TV.))
((M is making dumplings in the kitchen.))

05 T: ***otousan mousugu¿***
dad soon
"Is Dad coming home soon?"

06 M: ↑nn
huh
"Huh?"

07 T: *otousan mousugu¿=*
dad soon
"Is dad coming soon?"

08 M: *=un*
yeah
"Yeah."

The mother begins a conversation by asking if Ten likes dumplings, and Ten answers, "*daisuki*. (I like them very much.)" in the next line. The mother then closes a sequence in line 4. After that, there is a 62.0-second lapse during which Ten plays with tablet while watching TV and the mother makes dumplings in the kitchen. In line 5, Ten starts a new sequence by employing a routinized question, "*otousan mousugu¿* (Is Dad coming home soon?)". Then the mother initiates repair by uttering, "*nn* (Huh?)", which appears to display a hearing problem. Ten addresses the problem by asking exactly the same question again in line 7. The mother, in line 8, responds to him, "*un* (yeah.)". In this example, as with Extract (38), Ten's

way of topic initiation approximates that of itemized news inquiries.

These two extracts above, (38) and (39), illustrate that Ten possesses the interactional competence to initiate a new topic through use of the routinized question. This finding runs contrary to the major features of ASD discussed in previous studies. As shown throughout this study, "*otousan mousugu* (Is Dad coming home soon?)" and its equivalents are routinized questions Ten deploys to initiate sequences.

5.4. Maintaining Interaction With Routinized Questions by a Japanese Adolescent Diagnosed With ASD

This section focuses on the way in which Ten (T), a Japanese adolescent with ASD, employs routinized questions to maintain the interaction with his mother (M).
The next instance, Extract (40), shows a case in which Ten sustains a conversation by utilizing a routinized question after a gap.

(40)[A bread roll]
((T is hungry and is eating a bread roll before dinner.))
01 T: *umai*.
yummy
"This bread roll is yummy."
02 M: *oishi*?
delicious
"Is that delicious?"
03 (1.5)
04 T: ***o[tousan shichi ji]*:?**
dad seven time
"Is Dad coming home at seven?"
05 M: [*yokatta ne*]
good IP
"That's good."
06: *un. shichi ji goro kaette kuru yo.*
yeah.seven time about come. home IP
"Yeah, Dad is coming home at about 7:00."

As Ten says, "*umai* (yummy.)" in line 1, the mother asks him "*oishi?* (Is that delicious?)". In line 3, Ten does not answer the question immediately and a silence occurs, which means that the action being undertaken by the question-answer adjacency pair is incomplete. As mentioned in Chapter 3, it is normative to immediately respond to a question under conditional relevance (Heritage, 1984). However, instead of answering the question from the mother, Ten initiates a new topic with the routinized question, *"otousan shichi ji:?* (Is Dad coming home at 7:00?)." This appears to show that Ten knows that he is responsible for taking a turn after the question addressed to him even though his turn is not a relevant response. In line 5, the mother says, "*yokatta ne* (That's good.)" in overlap with Ten's utterance. The mother's utterance seems to be a comment to Ten's utterance in line 1, "*umai.* (yummy.)" The mother then answers to Ten's question, "*otousan shichi ji::?* (Is Dad coming home at 7:00?)" by saying, "*un. shichi ji goro kaettekuru yo.* (yeah, Dad is coming home at about 7:00.)". The following example further shows how he manages to initiate a new topic to maintain the progress of the interaction instead of answering the mother's question.

(41)[Are you tired?]
01 M: *Ten-chan tsukareta*?
Name-TL tired
"Ten-chan, are you tired?"
02 T: *tsukarete nai.*
tired NEG
"I'm not tired."
03 M: *fu::n. daijyoubu*?
I see alright
"I see. Are you alright?"
04 (2.5)
05 T: ***otousan shichi ji?***
dad seven time
"Is Dad coming home at seven?"
06 M: *otousan wa shichi ji sanjyuppun kurai ni kaette kuru.*
dad Top seven time thirty about at come. home
"Dad is coming home at about 7:30."

Prior to this segment, Ten was dozing off while watching TV on the couch. The mother asks if Ten is tired, "*Ten-chan tsukareta?* (Ten-chan, are you tired?)". Ten answers, "*tsukarete nai.* (I'm not tired.)" In line 3, the mother registers receipt of Ten's response, "*fu::n.* (I see.)", and asks a follow-up question, "*daijyoubu?* (Are you alright?)". After remaining silent for 2.5 seconds without answering the mother's question, Ten initiate a new sequence with the routinized question, "*otousan shichi ji?* (Is Dad coming home at seven?)" Then the mother responds to Ten, "*otousan wa shichiji sanjyuppun kurai ni kaette kuru.* (Dad is coming home at about 7:30.)"

As shown in the two extracts above, Ten does not always answer the mother's questions immediately. It is possible that he does not know the answer or may not want to answer. Although these extracts with Ten's lack of responsiveness illustrate his interactional difficulties, they also display his interactional competence. Introducing a new topic using routinized questions is consistent with topic initiation employing itemized news inquiries by people without ASD. Ten possesses the competence to take turns by using routinized questions to maintain the progress of the interaction.

The next extract describes the way Ten avoids responding to Wh-questions but maintains interactions with his mother. Consider Extract (42) below.

```
(42)[taijyuu sokutei]
01 M: Ten-chan kyou taijyuu hakatta      no::
       Name-TL  today weight  measure:PST  Q
      "Ten-chan, did you check your weight?"
02 T: taijyuu(.)hakatta:
       weight    measure:PST
      "I checked my weight."
03 M: nan  kiro       datta   ka oboeteru:?=
       what kilogram   COP:PST Q  remember
```

"Do you remember how much your weight was?"

04 T: =*oboeteru*.
remember
"I remember."

05 M: *nan kiro*?
what kilogram
"How much did you weigh?"

06 (2.0)

07 M: *nan kiro datta*?
what kilogram COP:PST
"How much did you weigh?"

08 T: (・・・・・・・)

09 M: *nan kiro datta*?
what kilogram COP:PST
"How much did you weigh?"

10 T: *a-a-a-u*=

11 M: ∘↑n∘ nan kiro dat[ta?]
huh what kilogram COP:PST
"How much did you weigh?"

12 T: [*taijyuu*]*hakatta*=
weight measure:PST
"I weighed myself."

13 M: =>*taijyuu hakatta*< *nan kiro datta ka oboeteru*?
weight measure:PST what kilogram COP:PST Q remember
"Do you remember how much you weighed?"

14 T: ***otousan kaette kuru*?**
dad come.home
"Is Dad coming home?"

15 M: *wasurechatta*?
forget:PST
"Have you forgotten?"

16 T: *wasurechatta*.
forget:PST
"I forget."

17 M: *so*[*kka*,]
that Q
"I see."

18 T: [*a-a-*]*a otousan kaette kuru*?=

```
                    dad  come.home
     "Is Dad coming home?"
19 M: =otousan kaette kuru yo.
        dad     come.home   IP
     "Dad is coming home."
20 T: (・・・・・・・)
21 M: wasurechatta ka:::
       forget:PST   Q
     "You forgot."
```

The Mother's turn opens with a question asking Ten if he weighed himself on that day, "*Ten-chan kyou taijyuu hakatta no::* (Ten-chan, did you check your weight today?)." Ten responds with repetition of the mother's utterance, "*taijyuu hakatta::* (I checked my weight.)" in line 2. Although his answer is a partial repetition, Ten does not use the question marker "*no*". Then, the mother asks Ten's exact weight, "*nankiro dattaka oboeteru:?* (Do you remember how much your weight was?)." In line 4, latching with his mother's production, Ten answers with repetition of the final predicate component "*oboeteru.* (I remember.)", while changing the upward intonation to final intonation. The Mother pursues Ten's response in line 5, "nankiro (How much did you weight?) As seen in the silence in line 6, Ten has difficulties answering Wh-questions. A considerable number of studies have reported that children with ASD struggle to respond to Wh-questions (e. g., Daar, Negrelli, & Dixon, 2015; Goodwin, Fein, & Naigles, 2012; Secan, Egel, & Tilley, 1989). The mother again asks his weight, "*nankiro datta?* (How much did you weigh?)" In line 8, Ten appears to attempt a response, but it is inaudible. She continues to ask Ten, "*nankiro datta?* (How much did you weigh?)", in line 9, and Ten again endeavors to respond to her question but fails to answer. The mother yet again asks him in line 11, "*nankiro datta?* (How much did you weight?). In line 12, in overlap with the final part of the mother's utterance, Ten repeats his own answer from line 2. Latching with Ten's production, the mother repeats his answer and inquires as to whether he remembers his weight. Therefore, in the next turn, Ten's answer regarding his weight is held to be

conditionally relevant. However, instead of answering his mother's question, Ten shift a topic with uttering, "*otousan kaette kuru?* (Is Dad coming home?)". Ten's topic shift is neither the one with boundary nor a stepwise topic shift elucidated by Sacks (1992): the topic shift is abruptly implemented without connecting to the previous topic. On the other hand, the official absence and replacement with this routinized question can be considered to be his avoidance strategy. Having failed repeatedly to induce an answer from Ten, the mother provides an account for the absence of response, "*wasurechatta?* (Did you forget?)" (line 15). In the next line, Ten repeats the mother, "*wasurechatta.* (I forget.)", and she then accepts Ten's response. In line 18, Ten again asks the mother, "*otousan kaette kuru?* (Is Dad coming home?)". This time, the mother responds to Ten, "*otousan kaette kuru yo.* (Dad is coming home.)" In line 21, after this routinized question, the mother goes back to original sequence "*wasurechatta ka::*(You have forgotten.)" In this extract, Ken's behavior is consistent with Bauminger-Zviely, Karin, Kimhi, and Agam-Ben-Artzi (2014) report that children with ASD tend to shift topics abruptly, while Ten exhibits a competence to maintain interaction with his mother.

The next instance also illustrates how Ten strategically avoids answering Wh-questions and maintains the conversation with his mother.

(43)[iPad]
01 M: *Ten-chan*, (0.5) *nani miten no*?(.)*iPad*.
Name-TL what watch Q iPad
"What are you watching on iPad?"
02 (2.0)
03 M: ∘*un*?∘
Hmm
"Hmm?"
04 T: **otousan mou chotto¿**
dad yet a little
"Is Dad coming home soon?"
05 M: *un*. *mouchotto de kaette kuru yo*.

```
 yeah a little  COP  come home  IP
"Yeah, Dad is coming home soon."
```

In the extract above, the mother is making dinner in the kitchen and Ten is playing with his iPad while watching TV. The mother initiates a new topic with a question regarding what he watches on his iPad. In line 2, instead of providing a response, Ten remains silent for 2.0 seconds. Although this silence belongs to Ten, the mother tries to elicit a response from Ten in line 3. Ten, in line 4, shifts a topic with a version of the routinized question, "*otousan mouchotto¿* (Is Dad coming home soon?)", and avoids answering the mother's question. Then the mother responds to him, "*un. mouchotto de kaette kuru yo.* (yeah, Dad is coming home soon.)"

As seen in the two examples above, Ten displays some difficulties in answering Wh-questions. This finding is consistent with the characteristics of people with ASD as pointed out by many researchers (e. g., Daar, Negrelli, & Dixon, 2015; Goodwin, Fein, & Naigles, 2012; Secan, Egel, & Tilley, 1989). However, the current study found that when Ten is confronted by difficulties of answering Wh-questions, he employs a strategy to solve the problem by shifting a topic with routinized questions.

5.5. Topic Initiated by an Australian Adolescent Diagnosed With ASD

In this section, I present an example of Duke (D), an Australian adolescent diagnosed with ASD, who is seemingly inspired by his own gesture to initiate a new topic during a conversation with his mother.

```
(44)[Duke 2019: 21:00]
01 M: alright. we:ll. (1.0) thank you for speaking with me:
02    thank you fo::r allowing me to:: reco:rd this.
03    this is-I think this is important.
04    (1.0)
```

05 D: umhum ((nod nod nod))
06 M: is that alright with you::?
07 D: ye::ah
08 M: okay, alright. oh, thanks Duke.
09 D: ((thumbs up))

Figure 1

10 (1.0)
11 **oh, and also did you know I have a double-jointed thumb?**

Figure 2

12 M: I, do know you have a double-jointed thumb.
13 D: most people (.) have like (.) this straight thumb.=
14 M: =yeah.
15 D: but me::
16 ((he is showing his mother how he bends his thumb.))
17 M: oh, it's going sideways. wrong way.
18 D: and then
19 M: ehehe[hehehehaha]
20 D: [if you hea]r (.)ve:ry closely to your ear
21 you'll hear <a click>
22 ((he is making his mother listen to the sound of
23 his thumb clicking.))
24 M: ew::
25 D: other way
26 ((the sound of his thumb clicking.))
27 M: oh:: ew: ew:: yuck, ehehehe no thank you::

```
28 D: you may (.) have double-jointed thumbs as we:ll >but<
29    you can'::t do the click
30 M: no:: I can't do the click. I can get them to go::
31    almost a::s far backward your::s. >although< I think
32    you beat me? ((Duke is showing his mother how he bends his
33    thumb.))
34 D: umhum
35 M: you've (.)done well. (1.0) alright, thanks Duke.
36 D: ((nod nod nod nod))
```

Here, the mother is closing down the video-recording session with Duke and expresses her gratitude for his participation by saying, "thank you for speaking with me: thank you for allowing me to:: recor:d this. this is–I think this is important." In line 5, in response to the mother, Duke utters, "umhum" while nodding thrice. The mother confirms that it is all right for them to finish recording, "is that alright with you::?" In line 7, Duke agrees to cessation of the video recording by saying straightforwardly, "ye::ah." With Duke's agreement, the mother closes the sequence of conversations with him, "okay, alright. well, thanks Duke." In line 9, instead of uttering any words, Duke gives a thumbs-up gesture toward the video camera, thus expressing his acceptance of his mother's turn. (Figure 1). After 1.0 seconds of silent, Duke launches a new topic by producing, "oh." As Heritage (1984) explicated, "oh" is a change of state token, which may be deployed to display receipt of new information. In addition, as described in Chapter 3, the use of "oh" at the turn-initial position also functions to signal recipients that new information is received and is disconnected from the previous topic. Here, Duke seems to deploy it as a change of state token as he seems to have just remembered something by virtue of observing some phenomena or objects (Jefferson, 1978). He next inserts an "and", indicating continuation of the conversation (Schiffrin, 1987), and asks the mother if she knows that he has a double-jointed thumb, "oh, and also (.) did you know I have a double-jointed thumb?" (Figure 2). Thus Duke's thumbs-up gesture resulted in performing dual actions: aligning with the mother's initiation of closing and initiating a new

sequence. In line 12, the mother says, "I, do know you have a double-jointed thumb." The mother emphasizes her utterance by adding the word "do" rather than simply stating, "I know you have a double-jointed thumb." The mother's practice also implies offering Duke a sign "go-ahead" to approve the resumption of the interaction with a new topic. After the mother has called for a closing of the video session, Duke begins to brag, in line 12, to his mother about how far back his thumb can actually bend, "most people (.) have like (.) this straight thumb.= ". The mother, in line 13, immediately produces, "yeah." as if to facilitate Duke's behavior. In response to that, Duke shows off to his mother how he can actually bend his thumb. In line 16, the mother utters, "oh" in surprise and explains her surprise with, "it's going sideways. the wrong way.", thus aligning with Duke's action. Duke manifests his intention to expand his story about his thumb by employing the continuation marker "and" in line 17. In response to Duke's gesture, the mother laughs at the unnaturally bent thumb. Subsequently, in lines 19 and 20, overlapping with the mother's laughter, Duke makes a clicking sound with his right thumb. Hearing the sound of Duke's right thumb, the mother ejaculates, "ew::", which resonate with what Goffman (1981) referred to as "a *response cry*", an exclamation for expressing emotion. What is more, Duke calls his mother's auditory attention to the clicking sound of his left thumb by saying, "other way". In consequence, in line 26, the mother expresses more surprise and seeming discomfort when she hears the sound of his right thumb, "oh:: ew: ew: yuck, ehehehe no thank you::". However, since the sound of Duke's left thumb is louder than the sound of his right thumb, the mother's additional surprise tokens may have been marshaled for greater effect in this second occurrence. Then, in lines 27 and 28, Duke proudly remarks that his thumb can make clicks while the mother's thumb can bend but cannot make clicks, "you may (.) have double-jointed thumbs as we:ll >but< you can'::t do the click" In lines 29, 30, and 31, after the mother agrees with Duke, she displays that her thumb bends as far back as Duke's. However, Duke, in apparent competition with his mother, shows how far back his thumb can bend. Agreeing that

her thumb cannot make the clicking sound, she tells Duke that his thumb clearly has a greater range of motion, " no:: I can't do the click. I can get them to go:: almost a::s far backward your::s. >although< I think you beat me?" In response to that, Duke utters "umhum" in agreement as he examines his bent thumb, comparing it with the mother's bent thumb through his gaze. The mother, in line 34, closes the sequence with an assessment by saying, "you've (.) done well. (1.0) alright, thanks Duke." with stress on the word "done". Duke confirms the mother's closing initiation by nodding four times.

This extract reveals Duke's effective communication skill to initiate a new topic by employing a disjunctive marker "oh". His skill is contrary to a major characteristic of ASD mentioned in previous studies (Dobbinson, Perkins, & Bourcher, 1998; Rendle-Short, 2002; Hale & Tager-Flusberg, 2005; Geils & Knoetze, 2008; Bauminger-Zviely, Karin, Kimhi, & Agam-Ben-Artzi, 2014; Battaglia & Mcdonald, 2016), in which people with ASD have difficulties initiating a new topic.

5.6. Stepwise Topic Shift by an Australian Adolescent Diagnosed With ASD

This section describes how Duke (D), the same Australian adolescent as above, shift the topic even though his mother is apparently trying to close the sequence.

```
(45)[Duke 2019 19:54]
01 D: I know about Ford GT
02    (.........) it's m::y favorite <ca::r>
03 M: yes. I know this. (.) you've designed many, haven't you?
04    (.)
05 D: designed¿ (0.5)I haven't designed any and I've got (.)
06    this was just from LEGO set. (.) °hun°
07 M: >but< in you:r in the competition you entered didn't you
08    make (.) a few design? or is that just other one just
09    for fun?
10 D: that contest is the <For::d Mustang> the nineteen[sixty]
11 M:                                                 [ah:::]
```

12 D: seven Mustang.
13 M: okay. I've got the wrong ca:r, have I?
14 D: ((nod nod))
15 M: I'm not good with these ca:rs. I can't remember them all.
16 D: hum
17 M: there is: many of them.
18 D: **and your ca:r they:: (1.0) <Ho:::leden> (.) Astra.**
19 M: correct.
20 D: <°°you see°°> °I know a lot about cars.°
21 M: you do know a lot about cars. That (.) might be::(.)
22 most definitely

Before this segment, Duke and the mother were talking about the Ford GT winning the famous Le Mans race, and in the talk Duke was informing the mother that the Ford GT was the first American car to win the Le Mans race. In line 1, Duke tells the mother that he knows the Ford GT and that it is his favorite car. The mother responds to Duke, "I know this. (.)", and then she asks him about his design experience with a tag question, which is utilized when asking for an agreement from the recipient, "you have designed many, haven't you?" During the micro pause in line 4 and his subsequent utterance, "designed", Duke exhibits a thinking face (Goodwin & Goodwin, 1986), which possibly shows that he is trying to remember if he has ever designed a model of a Ford GT. At this point he utters, "designed¿", apparently questioning the lexical choice. After 0.5 seconds, while showing the Ford GT he made with LEGO blocks, Duke tells the mother, lines 5 and 6, that he has never designed a Ford GT with plain blocks but that he has experience making one with a LEGO set, "I haven't designed any and I've got (.) this was just from LEGO set. (.)°hun°". Nonetheless, the mother still seems to think that Duke has actually designed a Ford GT as she pursues this topic further,">but< in you:r in the competition you entered didn't you make (.) a few design? or is that just other one just for fun?" In response, Duke recognizes the mother's misunderstanding that she thinks it was the Ford GT that was entered in the competition, and

he explains that it was rather the 1967 Ford Mustang that was actually entered. Overlapping with Duke's turn, the mother produces a realization token, "ah:::". In line 13, she accepts Duke's explanation by saying, "okay.", but she again asks Duke for confirmation, "I've got the wrong ca:r, have I?" In line 14, Duke responds to the mother with a double head nod. In lines 13 and 15, the mother explained that the reason she mistook the Ford Mustang for the Ford GT is that she does not know much about the cars and does not remember all of them, "I'm not good with these ca:rs. I can't remember them all. there is: many of them." By line 17, the topic about the car designed by Duke appears to have ended with the mother's turn, yet Duke shift the topic with the continuation marker "and.", "and your ca:r they:: (1.0) <HO:::LDEN> (.) ASTRA." At this point, Duke and the mother move from the topic of the car designed by Duke to a different topic, while staying on a topic of a car. The mother receipts this with "correct." In line 20, Duke tells the mother in a quiet voice but hearable as being proud, "<°°you see°°> °I know a lot about cars.°" In lines 21 and 22, the mother expresses her strong agreement with Duke, "you do know a lot about cars. That (.) might be::(.)most definitely", thus effectively closing the sequence.

In this extract, a topic shift without clear termination of the previous topic or a disjunctive marker for moving to a next topic is observed. Rather, a gradual and seamless transition from an ongoing topic is observed. In that sense, Duke is capable of shifting the topic by utilizing the continuation marker "and." without interrupting the progressive of the conversation.

5.7. Disjunctive Topic Shift by an Australian Adolescent Diagnosed With ASD

In the following, the analysis is focused on an example in which Duke (D) shifts the topic proffered by the mother instead of directly refusing the mother's request.

(46)[Duke 2019: 3:34]

01 M: .hhh (.) so:: are you looking forward to: Tuesday¿
02 D: ((nod nod nod nod nod))
03 M: tell me what you're doing on Tuesday.
04 D: woodworks.
05 M: woodworks.
06 D: [I build]stuff out of wood and right now
07 M: [ah:::]
08 D: I'm making a <photo> frame.
09 M: wonderful. (.) is that gonna be my mother's day present;
10 D: ↑hm::m (.)↑maybe.
11 M: maybe?
12 D: °I've no idea.°=
13 M: =#no::::# that would be lovely. that would be a great present.
14 D: **oh w'l I would like(.)to <paint it> to make it more better.**
15 M: would you::¿
16 D: ((nod nod)) hmm.=
17 M: =what color would you paint it.
18 D: I'll just say black.
19 M: oh:↑::
20 D: black o:r (.) blue:.
21 M: >ok< what if you were making it for me::
22 what color would you paint it.
23 D: green.
24 M: green why green.
25 D: be:z it's your favorite ↑color=
26 M: =↑oh you remember ha[hahahahahaha]
27 D: [heeheeheehee]
28 M: oh:: good on you darling hee.hhh
29 (3.0)
30 M: >but< if it's for you::¿ you'll paint it=
31 D: =blue because it's my favorite color =
32 M:=okay.
33 D: because blue is the coolest color in the world=
34 M: =Is it?=
35 D: =yes.
36 M: oh:: .hhh I might have to disagree
37 I think green's a pretty cool color.
38 D: no:: it's blue=

```
39 M: =oh okay
40 D: it's blue.∘
41 M: fair enough. (.) it's blue.
42 D: it's blue.
43 M: heeheeheeheehee.hhh alright.
```

Prior to this segment, the mother and Duke were talking about his school, but the conversation was suspended when Duke manifested concern about the video camera that was recording their conversation. Although he was saying something about it to the mother, his talk was not comprehensible on the recording. In response, the mother told him to just ignore the camera. Subsequently, she informed him that she was recording him with the video camera for research purposes. Subsequently, he agreed to the research and the recording.

The mother then opened a sequence with so-prefacing, "so:: are you looking forward to: Tuesday¿" As Bolden (2009) explicated, so-prefacing is often employed for proffering a pending topic. Instead of answering the mother's question, Duke simply nods four times. In line 3, the mother tries to obtain further information on what Duke is going to do on Tuesday, "tell me what you're doing on Tuesday." In response, Duke utters, "woodworks." The mother, in line 5, calls for an elaborated explanation of woodworks by repeating Duke's utterance, "woodworks." In lines 6 and 8, Duke starts to explain about woodworks, "I build stuff out of wood and right now I'm making a <photo> frame." The mother then evaluates Duke's idea of making a photo frame by saying, "wonderful." The mother's evaluation marks the end of the sequence that started in line 1. After a short pause, the mother launches a connected topic with a question, "is that gonna be my Mother's Day present;" Yet, this utterance is not only asking for information but is also hearable as a request for the photo frame as a Mother's Day present. In line 10, by uttering, "↑hm::m", Duke delays his response. After a micro pause, he says, "↑maybe." Thus Duke does not answer the mother's request in a straight-forward manner as his turn is hearable as being a tease. Then the mother laughingly repeats Duke's

utterance with rising intonation, which serves as a pursuit of answer to her request. Her laughter indicates that she has interpreted his previous turn as a humorous tease.

Up to this point, Duke has been talking face-to-face with the mother, but he now moves over to the oven on his left to hang the kitchen towel which he has been holding as he produces an ambiguous answer in a quiet voice, "°I've no idea.°" Duke's facial expression, body movement, and tone of voice exhibit an attempt to avoid the topic of a Mother's Day present. In line 13, the mother immediately responds with, "#no:::#" in a creeky voice, and again suggests the frame as a possible Mother's Day present, "that would be lovely. that would be a great present." Duke produces two hesitation tokens, "oh w'l". Research has shown that "Oh" is often employed to express reluctance (Heritage, 1998) and "well" may be followed by a negative response (Heritage, 2015). As mentioned in Section 2, children with ASD tend to shift topics more abruptly than typically developing children. Duke, however, alerts the mother with disjunctive markers "oh" and "well" that the following talk is not topically coherent with the adjacent prior talk. Duke then utters, "I would like (.) to <paint it> to make it more better." He does not directly refuse the mother's request but shifts the topic from a Mother's Day present to painting the photo frame. In mundane interaction, there are two contradictory responses: preferred responses (positive) and dispreferred responses (negative). In social norms, preferred responses are the default (Schegloff, 2007). Preferred responses are produced directly and concisely. On the other hand, dispreferred responses are produced indirectly and are accompanied by hesitation tokens, explanations, excuses, and so on. When producing a dispreferred response, the speaker may need to do some extra work to save the face of others, such as delay in replaying, pause, and producing an ambiguous answer. In the segment above, Duke avoids a dispreferred answer by deploying various strategies. Duke delays the response by a pause and "hm::m", produces an ambiguous answer "maybe" and a non-answer response "I've no idea.", and when these techniques did not resort in the mother's abandonment, he shifts a topic. In this sense , the way Duke responds to the

mother shows his highly complex interactional competence. In line 15, the mother says, "would you::¿" to align with Duke's topic shift. In response, Duke nods twice and utters, "hmm." Expanding the topic of painting the photo frame, the mother promptly asks Duke, "=what color would you paint it." Duke, in line 18, succinctly responds to the mother, "I'll just say black." The mother says, "oh:↑::" as if to show her surprise at Duke's answer of "black". In line 20, Duke revises his answer and says, "black o:r (.) blue:." Lerner and Kitzinger (2015) detected that the repair preface "or" casts the trouble source and the repair solution as alternative formulations, where the latter is uttered as favored but the former is not discarded entirely as wrong. In lines 21 and 22, the mother quickly says, ">ok< and then asks Duke what color he would paint the photo frame if it were for her present, "what if you were making it for me:: what color would you paint it." Duke answers, "green." The mother repeats what Duke said, "green", and asks Duke, "why green." In response, Duke thrusts his face forward and utters, "be:z it's your favorite ↑color" as if the reason for painting the frame green were self-explanatory. In line 26, the mother immediately utters, "=↑oh", expressing surprise, and she laughingly adds, "you remember". Overlapping the mother's laughter, Duke laughs as well. Realizing that Duke has remembered her favorite color, the mother praises him for it, "oh:: good on you darling hee.hh". A three-second pause ensues without any verbal response from Duke. The mother then utilizes a "designedly incomplete utterance" (DIU), a format frequently observed in classroom interaction (Koshik, 2002), to prompt a response from Duke, ">but< if it's for you::¿ you'll paint it=". In line 31, Duke instantly says, "blue" and provides the reasoning behind his choice, "because it's my favorite color=". The mother immediately, as indicated by the latching, accepts Duke's explanation, "=okay." Duke further explains why he likes blue, "because blue is the coolest color in the world=". In line 34, the mother promptly inquires, is it ?=". Duke responds to the mother in a straightforward manner, "=yes." The mother, in lines 36 and 37, displays some hesitation about agreeing with Duke's opinion that blue is the coolest color in the world and articulates her own opinion, "I think

green's a pretty cool color." But Duke takes a counter-opposition stance, "no:: it's blue=". The mother, in line 39, promptly ratifies Duke's opinion, "=oh okay", and Duke reacts recycling his opinion, "it's blue." In response, the mother concedes and agrees with Duke's point of view, "fair enough. (.) it's blue." Duke, however, seems to reinforce his position by again stating, "it's blue." In line 43, the mother laughs and utters, "alright.", which closes the sequence with Duke.

As seen in this extract, Duke employs various elaborated techniques including delays, non-answer response, and topic shift with disjunctive markers for refusing mother's request. According to basic social norms, preferred responses are the default (Schegloff, 2007). On the one hand, when producing dispreferred responses, it is necessary to give consideration to the interlocutor rather than to directly respond. In this regard, Duke displays a high level of interactional competence that allows him to take into consideration his interlocutor, the mother.

5.8. The Mothers' Strategies for Maintaining Conversation With Their Sons Diagnosed With ASD

In recent years, a number of support programs have been introduced to attempt to improve communication skills in children diagnosed with ASD. For example, Laushey and Heflin (2000) sought to find out if social skills improved in children with ASD using a method of active peer tutor training termed the "buddy system," in which children with ASD are paired with typically developing children. They found that the percentage of age-appropriate social interaction increased. Simpson, Langon, and Ayres (2004) documented the path by which four students with ASD in first and second grades improved their social skills by introduction of a combination of video and computer-based instructions in classroom settings. The results of the study suggested that all of the participants' social skills improved, yet the authors noted that their data collection did not extend over a longer period of time, so

the maintenance and generalization of the social skills was not explored. They, therefore, called for more longitudinal research in the future. In addition, Hezroni and Tannous (2004) investigated the effects of a computer-based intervention program which enhances the communication functions of children with ASD. They specifically examined delayed and immediate echolalia and irrelevant and relevant speech. The results indicated that all children who participated in this program not only reduced speech that included delayed and immediate echolalia but also increased the amount of relevant speech they produced.

As mentioned above, research on support for children with ASD has been rapidly accumulating. Still, there is insufficient research documenting interactions between children with ASD and their families in domestic settings, which is the most familiar setting for them. Family interactions are very important in examining the social skills of children with ASD, but little is known about the challenges that children and their families encounter (Rae & Ramey, 2020, p. 67). This section considers the strategies that mothers of adolescents with ASD employ to maintain conversation and interaction with their children.

In Extract (47) below, a Japanese mother (M) employs an itemized news inquiry in a way that begins a conversation with her son, Ten (T).

(47)[Cat Park 00:00]
01 M: ***kyou wa: >Ten-chan< Nenkindou san de nani yatta no*?**
today TOP Name TL Name TL at what did Q
"What did you do at Nenrindou san today?"
02 T: *ganbatta.=*
worked hard
"I worked hard."
03 M: *=ganbatta.* ***nani::ganbatta*?**
worked hard what worked hard
"You worked hard. What did you work hard on?"
04 T: *wasurechatta.=*
forgot
"I forget."

05 M: =*wasurechatta:::uhhuhhuhh fu:::n*
forgot hmmm
"You forget."

Since Ten's high school is a school for students diagnosed with ASD, Down syndrome, and other developmental disabilities that provides special assistance, and prepares them for life after graduation, students regularly go to workplaces as potential sites of employment. On this day, Ten went to a workplace called "*Nenkindou*" for work training. The mother begins a conversation with Ten by utilizing an itemized news inquiry. She produces, "*kyou wa*: (Today is)" with a sound-stretch on the final syllable of the utterance, halts her utterance, and then calls Ten's name, "*Ten-chan*". Since Ten is playing with his iPad, she seems to be attempting to draw his attention. The mother then resumes the sequence with a question, "*Nenrindou san de nani yatta no*? (What did you do at Nenrindou?)" Asking this question appears to function as a strategy for extending this sequence of interaction. Ten, in line 2, simply answers with his routinized response, "*ganbatta*. (I worked hard.)" In line 3, the mother immediately repeats Ten's production, "*ganbatta*." and pursues a response, "*nani ganbatta*? (What did you work hard on?)", which indicates that the mother interprets his answer as not being an appropriate reply to her turn. As described in Section 4, Ten manifests difficulties in answering Wh-questions. Then Ten, in line 4, utters, "*wasurechatta*.= (I forgot.)" In line 4, latching with Ten's production, since Ten does not reply to the aspect of "what" in the mother's question, " *nani::ganbatta*? (What did you work hard on?), and only produces, "*wasurechatta*.= (I forget.)", the mother appears to try to close the sequence by repeating Ten's utterance, "*wasurechatta*::: (You forget.)", which also functions to receive his answer. She concludes her turn with laughter and completes the sequence with emission of, "*fu*:::*n* (Hmmm)".

In this extract, the sequence is constructed with the mother's itemized news inquiry and the son's answers. When the son cannot answer a question, the mother pursues a response by posing a follow-up question. By doing so, the mother maintains the conversation with her son

even though, like children diagnosed with ASD, who are known to have difficulties with maintaining interaction, her son sometimes displays problems with continuity of discourse .

In the following example, a sequence is constructed in a similar way in which the mother employs an itemized news inquiry as in the example above, but this time with an Australian mother and a son. Here, an Australian mother (M) begins conversation with an itemized news inquiry.

(48)[swimming 2:18]
01 M: **so:: have you got u::m swimming(.)tomorrow?**
02 D: ye::ah.
03 M: **and what period is swimming.**
04 D: session <two::>
05 M: session two::(.) >∘alright∘< (.)**so have you got everything**
06 **ready for tomorrow?**
07 D: mmhm.
08 M: **pardon?**
09 D: ye::ah.
10 M: yea::ah(.) **where is it¿**
11 D: in my room¿
12 M: ok:.

The mother initiates a conversation with the discourse marker "so" and an itemized news inquiry, "so:: have you got u::m swimming(.)tomorrow?" Bolden (2009) examined the usage of "so" for prefacing sequence-initiating actions, highlighted the function of the preface "so," as being used for the purpose of acquiring an interlocutor's attention, especially in proffering questions. In responding, Duke simply utters, " ye::ah." The mother, in line 3, inserts "and", indicating a continuation of the conversation (Schiffrin, 1987) and asks Duke, "what period is swimming.", a question that induces more detail in terms of the information provided. Duke explicitly answers the mother's question by saying, "session <two::>" with the "two" said more slowly than usual. In line 5, the mother repeats Duke's utterance and then receipts it with, "session two::(.) >∘alright∘<". After a brief silence, the mother continues to deploy

more questions, "so have you got everything ready for tomorrow?" Duke only produces, "mmhm." The mother, in line 8, initiates repair with a common term for requesting clarification, "pardon?" Duke completes a repair by amending "mmhm." to "ye::ah." The mother seems to confirm Duke's repair and then maintains the sequence with him by marshaling more questions, "yea::ah(.) where is it¿" Duke responds to the mother, "in my room¿" In line 12, the mother then accepts Duke by saying, "ok:." With the mother's acceptance, " ok:.", this sequence is completed. As with Extract (47), the Australian mother also employs questions as a resource for maintaining a conversation with her son with ASD.

Thus far in this section, I have presented cases in which a Japanese mother and an Australian mother utilized repeated questioning as a strategy to maintain a conversation with their son diagnosed with ASD. In the following, I will introduce further strategies that an Australian mother employs to sustain interaction with her son.

(49)[wood works 3:35]
01 M: .hhh (.) so:: are you looking forward to: Tuesday¿
02 D: ((nod nod nod nod nod))
03 M: **tell me what you do on Tuesday.**
04 D: wood works.
05 M: **wood works.**
06 D: [I build]stuff out of wood and right now
07 M: [wo:::w]
08 D: I'm making a <photo> frame.
09 M: wonderful.

The mother's turn opens with an itemized news inquiry asking Duke if he is looking forward to Tuesday, ".hhh (.) so:: are you looking forward to: Tuesday¿" Duke only nods three times. The mother, in line 3, utilizes an imperative sentence, "tell me what you do on Tuesday." Responding, line 3, Duke utters, "wood works." The mother repeats exactly what Duke uttered, "wood works." In lines 6 and 8, Duke consequently elaborates his plans for what he will do on Tuesday, "I build stuff out of wood and right now I'm making a <photo> frame."

The mother evaluates Duke's arrangements for his school project with a positive assessment, "wonderful." The mother's actions of using an imperative sentence and repeating Duke's utterance appear to lead to his elaboration of his responses and to facilitate his active involvement in the interaction with her. The mother's actions described above seem to reflect strategies that achieve maintenance of conversation with her son with ASD and, similar to a classroom teacher's techniques that facilitate learner active involvement in a classroom (Walsh, 2011), she is able to involve her son in the turn sequences of the exchange.

5.9. Chapter Summary

This chapter observed the topic management of adolescents diagnosed with ASD. After the introduction in Section 1 and the literature review in Section 2, in Section 3, I presented two examples of Ten, a Japanese adolescent, diagnosed with ASD initiating a conversation after a lapse through the use of routinized questions. Ten was able to initiate a conversation with his mother by making good use of routinized questions. This finding revealed that contrary to the hallmarks of people diagnosed with ASD, who are considered to have difficulty initiating a conversation, he possesses the interactional competence to bring to fruition commencement of an action sequence. Section 4 illustrated the way in which Ten, a Japanese adolescent with ASD, maintains interaction by providing routinized questions instead of simply answering the mother's questions. In Extracts (40) and (41), although Ten did not answer the mother immediately, he revealed his understanding that it was his turn to speak by utilizing routinized questions to maintain the progress of the interaction. In Extracts (42) and (43), Ten displayed some difficulties in answering Wh-questions. This finding is consistent with the characteristics of people who have been diagnosed with ASD that has been noted by many researchers. However, the current study revealed that when Ten faced difficulties answering Wh-questions, he maintained interaction with his mother by employing a strategy of deploying routinized questions. Section 5 presented an example of Duke, an

Australian adolescent, diagnosed with ASD, displaying effective communication skills to initiate a new topic. Duke's gesture leads to initiation of a new topic. It is noteworthy that he did not initiate a new topic abruptly but inserted the disjunctive marker "oh" to signal recipients that the new information is received and is disconnected from the previous topic. This use of "oh" displays consideration of his recipient and his competence of taking into account the perspective of others. Section 6 described how Duke, an Australian adolescent with ASD, shifted a topic. Duke shifted the ongoing topic by virtue of deploying a continuation marker "and" when the mother attempted to close the sequence. This chapter next also discussed a topic shift by Duke. Duke responded to the mother by shifting topics rather than directly rejecting her request. In social norms, when producing dispreferred responses, it is often deemed necessary to give consideration to the interlocutor rather than directly producing dispreferred responses. In this sense, Duke manifests a sophisticated level of interactional competence. Lastly, I exemplified the mothers' strategies for maintaining a conversation with their sons with ASD. Both a Japanese mother and an Australian mother expanded the sequences of actions with their sons by deploying repeated questioning forms. The mothers' practices consequently increased their sons' opportunities to elaborate their responses and were effective in managing, maintaining, and preserving conversations with their sons. The last instance examined was that of an Australian mother who used an imperative sentence and repeated her son's utterance to increase his opportunities to respond and to facilitate his active involvement. This mother's behavior was comparable to a teacher's pedagogical technique that helps to facilitate learner active involvement in classroom interaction.

CHAPTER 6

REPAIR ORGANIZATION OF ADOLESCENTS DIAGNOZED WITH AUTISM SPECTRUM DISORDER

6.1. Introduction

In this chapter, I discuss how adolescents diagnosed with ASD, who are considered to have difficulties with pragmatic language use, deal with interactional repairs that occur in conversations with their caregivers. In the following, I first review studies examining repair practices by people diagnosed with ASD and then present instances of repair found in the data set under consideration in this research project.

6.2. Overview of Repair With Individuals Diagnosed With ASD

In this section, I present an overview of how people diagnosed with ASD handle problems that arise in daily conversation with others.

The ability to initiate repair and respond to repair initiation is an essential aspect of pragmatic behavior in a social context, yet very little is known regarding this practice as it is achieved by people diagnosed with ASD. Volden (2004) stated that children diagnosed with ASD respond inappropriately more often than their language age-matched peers. Similarly, Baltaxe (1997), in her research on the pragmatic competence of adolescents with ASD, reported that their communicative failures concerning repair were frequently observed. Paul and Cohen (1984) demonstrated that people with ASD less frequently carry out repair in their conversation than people with intellectual disabilities other than ASD. Moreover, Keen (2005) observed six mother-child interactions at home to investigate the types of repairs deployed by children with ASD. The results suggested that those children merely used repetition when they responded to their mothers' repair initiations and some of their attempts to self-initiate repair failed even though they demonstrated the ability to identify their own

problematic utterances through the initiation of repair.

Recently, a number of studies have shown the importance of examining how people diagnosed with ASD handle repair from the perspective of conversation analysis. Dobbinson, Perkins, and Boucher (1998), who focused on the frequency of overlap in a conversation between a woman with ASD and a researcher, found that self-initiation of repair at inappropriate positions by a woman with ASD resulted in overlaps. Wiklud (2016) indicated that the tendency of people diagnosed with ASD to avoid direct eye contact is a factor that affects the fluidity of the interaction and is also a related to the occurrence of understanding problems and consequently, co-participants initiate repair.

On the other hand, there have been abundant reports on instances of managing repair using echolalic phenomena (forms of repetition), which is a characteristic of utterances among people diagnosed with ASD. Many studies have offered evidence that the echolalic phenomena may function as a resource for interaction (e.g., Geils & Knoetze, 2008; Prizant & Duchan, 1981; Stribling, Rae, & Dickerson, 2007; Tarplee & Barrow, 1999; Wootton, 1999). For example, through close examination of interaction between a six-year-old boy with ASD and his family, Geils and Knoetze (2008) found that the boy, at first glance, appeared to simply repeat his preceding utterances, but was actually initiating repair through utilization of repetition. Similarly, Korkiakangas, Rae, and Dickerson (2012), analyzing interaction between a ten-year-old girl with a diagnosis of ASD and her teacher, reported on the girl's interactional competence in addressing trouble sources and managing repair for mutual understanding through the use of repetition of her previous utterances.

6.3. Repair Organization of Adolescents Diagnosed With ASD

The following table presents the frequency of initiated repair within the data from Japanese and Australian adolescents diagnosed with ASD and their caregivers that were considered for this study. The two data sets, however, are not used for frequency comparisons

as they are not of equal lengths in terms of minutes video recorded (approximately 220 minutes for the Japanese adolescents and 22 minutes for the Australian).

Table 2

Distribution of each type of repair.

Type of Repair	Ten	Duke
Repair initiated and completed by adolescents	1	3
Repair self-initiated by adolescents and other-repaired by mothers	0	0
Repair other-initiated by adolescents and self-repaired by mothers	3	5
Repair other-initiated by mothers and self-repaired by adolescents	0	4
Repair other-initiated by mothers without self-repair by adolescents	11	0
Repair other-initiated by mothers and other-repaired by mothers	2	0

6.4. Repair Initiated and Completed by Adolescents Diagnosed With ASD

As mentioned above in Section 2, the ability to initiate repair is crucial when interacting with others, but it has been well documented that people diagnosed with ASD are less likely to initiate repair in conversation (Delves & Stirling, 2010; Keen, 2005; Tager-Flusberg & Anderson, 1991). There are few examples of self-initiated self-repair in the data analyzed here, and not a single example of self-initiated other-repair was to be found, such as the "word search" co-interactants accomplish when they work together to come up with a word the initial speaker could not think of. The following examples illustrate how two

adolescents diagnosed with ASD, Ten (T), a Japanese, and Duke (D), an Australian, exercise self-initiated self-repair in conversation with their mothers (M). The part of the interaction that is of focal interest to the analysis here is shown in bold.

The next example illustrates the way that Ten (T) performs self-initiated self-repair.

(50)[Tired 0:45]
01 T: *Jun wa* ***doko¿*** *=do- Jun wa* ***juku¿***
Jun TOP where whe-Jun Top tutoring school
"Where is Jun? Whe-, Is Jun at the tutoring school?"

Ten asks his mother where his young brother Jun is "*Jun wa doko¿* (Where is Jun?)." Immediately after that, Ten utters "*do-* (possibly the beginning of '*doko*' (where)" but cuts it off after the first syllable. He then again asks his mother a question about his brother "*Jun wa juku¿* (Is Jun at the tutoring school?)" but this time replaces the word "*doko* (where)" with the word "*juku* (tutoring school)."

As shown in this extract, instead of employing a Wh-question, Ten reformulated his question by including a candidate answer "*juku*" for that very question. In contrast to previous research, in which people diagnosed with ASD rarely initiated repair, Ten sometimes performed self-initiated self-repair appropriately.

The extracts below exemplify cases in which Duke (D), an Australian adolescent diagnosed with ASD, displays his ability to perform self-initiated self-repair. In the following extract, Duke seems to change the direction of his speech at the point at which he says "ori:"

(51)[Duke in OZ 13:15]
01 D: I've no: idea. (.) but now they're **ori:** (.)
02 uh::m **show** <°that°> everyone new Lego Avengers sets (.)

It seems likely that he is possibly saying the beginning syllables of "original," but not quite completing it, nor is he producing it as a cut off. Then he restarts his utterance with the repair

proper by introducing the verb "show."

Additionally, the following is another example of self-initiated self-repair by the Australian adolescent diagnosed with ASD..

(52)[Duke in OZ 13:57]
01 D: and there is a thing. (.) **the** (.) **the** more angry Hu:lk i:s

Here, Duke employs the definite article "the", stops the sound with a micropause, and then continues his talk by uttering "the" again, but this time he repairs the empty slot by filling the name of a character that he goes on to discuss.

In Extract (53), Duke exhibits his competence in exercising two types of self-repair.

(53)[Duke in OZ 10:53]
01 D: I'll publish it. (.) <and> I'll **probably** publish it. (.)
02 <**possibl:y** to↑nights (.) or maybe tomorrow>

Before this segment, Duke and his mother were talking about something he had designed and built with LEGOs. In line 1, Duke says, "I'll publish it.", completing his utterance at this point. However, he indicates with an "and" that his utterance is not finished, and then he downgrades his previous utterance by inserting "probably" into the structural format he had just produced, "I'll probably publish it." In line 2, Duke tells his mother when he plans to publish his designed LEGO, "possibl:y to↑nights." After a short silence, Duke utters "or " then repairs his first forecast with "maybe tomorrow". Lerner and Kitzinger (2015) note that the repair preface "or" casts the trouble source and the repair solution as alternative formulations where the latter is uttered as a favored one, but the former is not discarded entirely as wrong. Here, Duke proposes "tomorrow" without discarding the possibility of "tonight." His use of "possibly" and "maybe" also make salient the uncertainty of his

decision. This extract exhibits Duke's competence in exercising two types of self-repair: insertion repair and utilization of the repair preface "or."

In this section, I demonstrated how two adolescents diagnosed with ASD, Ten (T), a Japanese, and Duke (D), an Australian, exercise self-initiated self-repair in conversation with their mothers (M). The four cases presented so far were not the "mistakes" in the production of utterances. Of particular note is the way of Ten's self-initiated self-repair by replacing a question word with using a more specific word and Duke's ability in performing two types of self-repair. Contrary to previous studies, two adolescents performed self-initiated self-repair properly.

6.5. Repair Other-initiated by Adolescents Diagnosed With ASD and Self-Repaired by With ASD

In this section, I focus on the other-initiated repair that adolescents diagnosed with ASD perform on their mothers. The extract below demonstrates a Japanese adolescent with ASD, Ten (T)'s other-initiated repair by employing repetition of the mother (M)'s part of the utterance.

(54)[Cat Park 9:28]
01 M: ↑*Ten chan,*
Ten TL
"Ten chan"
02 T: *na::ni.*
what
"What?"
03 M: *kyou wa gyouza ni suru ne?*
today TOP dumpling to do IP
"Today is dumplings."
04 T: ***gyoza?=***
dumpling
"dumpling?"

```
05 M: =un.
       yes
       Yes.
```

The mother calls Ten "↑Ten chan,". Ten responds to his mother "*na::ni.* (What?)" In line 3, the mother tells Ten that today's dinner will be dumplings "*kyou wa gyouza ni suru ne?* (Today is dumplings.)" Ten initiates repair for a confirmation check of what the dinner is "*gyouza?* (dumpling)" Then the mother immediately completes the repair by confirming "*un.* (yes)."

In this extract, as in normal mundane conversation, Ten requested for confirmation from his mother, and then she confirmed it. Therefore, it can be seen that Ten performs other-initiated repair properly to his mother.

The following is also an example of Ten's other-initiated repair. This examples exposes his pragmatic impairment.

```
(55)[Tired: 0:45]
01 T: Jun wa doko¿ =do- Jun wa juku¿
      Jun TOP where whe-Jun Top tutoring school
     "Where is Jun? Whe, Is Jun at the tutoring school?"
02 M: Jun wa  ne:: .hhh are:: <Jun  wa::::>
      Jun Top IP         um     Jun Top
     "Jun is um Jun is."
03 T: dare[to iru]
      who with be
     "Who is he with?"
04 M:     [.hhhh]  kyou   wa:: (1.0) bukatsu          mo   (.)
                   today  TOP        club activities also
05    naishi:: (.)tashika   jyuku           mo    naishi. (.)
      don' have   probably  tutoring school also don't have
     "Jun doesn't have either club activity or tutoring school today."
06 M: osoi ne.
      late IP
     "Jun is late."
```

07 T: *jitensha?*
bicycle
"Bicycle?"
08 M: *jitensha. ame futteru ne:* [*daijyoubu ka na::*]
bicycle rain falling IP all right Q COP
"Bicycle. It's raining. I wonder if Jun is all right."
09 T: [*doko itteru no*]*yoru::*
where going IP night
"Where has Jun gone in the evening?"
10 M: *mou makkura da yo. kasa motte ta ka na::*
already pitch-dark IP umbrella have PST Q COP
"It has already been pitch-dark. I wonder if Jun has an umbrella."

11 T: ***dareno¿***
whose
"whose?"
12 M: *Junsuke. oritatamikasa motteru ka na, (.)tabun.*
Junsuke folding umbrella have Q COP maybe
"Junsuke. I wonder if Junsuke has a folding umbrella."

In line 1, Ten asks his mother where his young brother Jun is "*Jun wa doko¿* (Where is Jun?)" Immediately after that, Ten utters "*do* (possibly the beginning of "doko (where)" and cuts the sound, and then asks the mother again by replacing the word "*doko* (where)" with the word "*juku* (tutoring school) "*Jun wa juku¿* (Is Jun at the tutoring school?)"

Although the mother tries to respond to Ten, she does not know exactly where Jun is on that day "*Jun wa ne:: .hhh are:: <Jun wa:::>* (Jun is umm Jun is.)" In line 3, Ten reformulates the question and asks his mother who Jun is with "*dare to iru* (Who is Jun with?)" The mother, however, cannot answer this question clearly "*kyou wa bukatsu mo (.) naishi:: (.) tashika jyuku mo naishi*. (Jun does not have either club activity or tutoring school today.)" In line 6, the mother tells Ten that Jun is late "*osoi ne*. (Jun is late.)" In line, 8, Ten asks his mother if Jun went out by bicycle "*jitensha?* (Bicycle?)" and the mother replies

"*jitensha.* (Bicycle.)" Next, she says "*ame futteru ne:* (It's raining.)", and then expressed her concern "*daijyoubu ka na:*: (I wonder if Jun is all right.)" In line 9, in overlap with his mother's utterance, Ten inquires where Jun has gone in the evening "*doko itteru no yoru::* (Where has Jun gone in the evening?)" Instead of answering Ten's question, the mother says that it has already been pitch-dark, "*mou makkura dayo*. (It has already been pitch-dark.)" In addition, the mother worries about whether Jun has an umbrella and says "*kasa motte ta ka na::* (I wonder if Jun has an umbrella.)" In line 11, Ten initiates repair " *dareno¿* (whose)." This utterance is an act of other-initiated repair, but there are two points that may deviate from practices of ordinary conversation. In Japanese conversation, subjects are oftentimes omitted, and the mother's utterance in line10 also lacks a subject. Thus, it appears to be natural for recipients to ask who has an umbrella using the case particle "ga (topic marker)." But instead, Ten uses the case particle "no (possessive)" and asks whose umbrella it is. Therefore, his use of the case particle does not fit in this sequential context. Moreover, as this question by Ten occurs in the context where Ten and his mother have been talking about Jun for a while, Ten's question of "whose" reveals that he has not been sharing the context with his mother. In line 12, the mother accepts Ten's repair and replies "Junsuke."

In the extract above, Ten other-initiates repair but he misused the case particle and his way of composing a question showed that he had difficulties sharing context with the other participant.

Next, I exemplify some cases of an Australian adolescent with ASD, Duke (D)'s other-initiated repair. Unlike the findings of previous research that people with ASD rarely initiate repair on other's utterances, the way of Duke's other-initiation of repair is very sophisticated.

```
(56)[Duke 2019 in OZ]
01 M: What else will you need¿
02    (1.0)
03 D: fork.
```

04 (4.5)
05 M: ah::ah:: the big one.
06 D: yes. the big one. (.) to cut the delicious hash browns.
07 M: and there might be a knife in the dish rack¿
08 (0.5)
09 D: **Which:¿**
10 M: "u::m no:: underneath the::: uhm plastic ∘ok∘ in there"
11 D: ye::p.

Duke is preparing his tea. In line 7, the mother suggests that Duke might need a knife "and might be a knife in the dish rack¿" After 0.5 seconds of silence, during which Duke searches for something in the dish rack (Although Duke is not visible in the video, the sound of him searching for something in the rack is hearable) Duke initiates repair by utilizing a question word "which." This form of repair initiation is more specific than open-class repair initiator because his bodily behavior and use of "which" indicate that he is asking among knives he sees, which knife the mother is referring to. In line 10, the mother carries out repair by saying "underneath the::: uhm plastic ∘ok∘ in there".

As shown in this extract, Duke initiates repair to make the mother's problematic utterance more precisely by utilizing the question word "which" instead of using open-class repair initiator.

In the following two examples below, the repair is initiated by the form adding a question word to the preposition.

(57)[Duke 2019 in OZ 1:47]
01 M: It's a bit more difficult with those isn't it?
02 (.)
03 D: **>with wha[t<]**
04 M: [wit]h the spatula.
07 D: hmm

The mother asks Duke for an agreement using a tag question "It's a bit more difficult with

those isn't it?" Duke, however, displays a problem understanding what the word "those" refers to. In line3, Duke initiates repair using the partial repeat of his mother's utterance "with" and adding a question word "what". Compared to initiating repair only with a question word, adding a preposition to the question word more clearly locates the trouble source. By adding a preposition "with" as a frame, Duke pinpoints the trouble source item in the prior turn. In line 4, in overlap with the final part of the Duke's utterance, the mother carries out repair by replacing "those" with "spatula."

(58)[Duke 2019 in OZ 6:18]
01 M: so: what else is on the car::ds for this week my love
02 What else are you doing?
03 D: **like what?**
04 M: schoo::l.
05 D: spor::ts

The mother starts a conversation by asking what Duke is going to do at school this week "What else is on the car::ds for this week my love". She again asks him "what else are doing?" In line 4, Duke initiates repair to clarify the question asked by his mother "like what?" Compared to open-class initiator without like (i.e., "what"), the way Duke initiates repair specifies the trouble source by asking for an example or requesting for a more specific question. The mother consequently accomplishes repair. In line 6, Duke produces "spor::ts" as an answer to the question from his mother in line 3.

The two examples above show that the way Duke initiates repair is refined to clarify the problem that occurs in the conversation with his mother.

The next extract illustrates a case in which Duke displays his interactional ability.

(59)[Duke 2019 in OZ 4:40]
01 M: just remember your rules.
02 D: **mmm hm but my rules about what¿**
03 M: The oven.

04 D: yeah:: I know.
05 M: okay.

The mother says "just remember your rules." Although Duke once accepts what his mother said, he initiates repair "but my rules about what¿" The way he initiates repair clearly shows what the trouble source is by changing the possessive case from "your" to "my", repeating the word "rules" and adding a preposition "about" and an interrogative word "what". This utterance by Duke explicitly asks what about the "rules" his mother is referring to. In line 3, the mother completes repair by uttering "The oven."

In this extract, Duke employs complex techniques to identify the trouble source, such as changing the possessive (i.e. "your" to "my"), repeating a part of the mother's utterance (i.e. "rules"), adding a preposition (i.e. "about"), and using a question word (i.e. "what"). This evinces that Duke has the communicative competence equal to typically developing children.

Thus far, other-initiated repair performed by adolescents diagnosed with ASD has been discussed in this section. First of all, I presented instances of a Japanese adolescent, Ten. In Extract (54), Ten initiated repair as confirmation check to his mother, which is commonly seen within everyday interaction. Nonetheless, in the following extract, Extract (55), Ten's pragmatic impairment was made evident. His misuse of the case particle and inability to share context with others were consistent with the hallmark of people diagnosed with ASD, who are found to have difficulty with pragmatic language use and social communication. This section then examined instances in which Duke, an Australian adolescent, successfully performed other-initiated repair on his mother. He employed various techniques to specify a repairable, such as using a question word, adding a question word to the preposition, and repeating his mother's previous utterance. This findings unveiled Duke's competence to deal adequately with problems that arose during conversation with others and revealed that he has a certain level of interactional competence to initiate repair on others.

6.6. Repair Other-Initiated by Mothers and Self-Repaired by Adolescents Diagnosed With ASD

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. (Botting & Conti-Ramsden, 2003; Tager-Flusberg, 1996). Such abrupt topic shift causes initiation of repair from others. The following are a few examples of how the inability to design their utterances for recipients can cause the initiation of repair. In Extract (60) below, Ten (T) fails to design his response to fit the mother's (M) initiation of repair.

(60)[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) form 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, 2012; 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.

(61)[Ojyarumaru 7:05]
((Ten is watching a TV program called *Ojyarumaru*.))
01 T: *okkii¿*
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¿ (big?)" As can been 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 shifts 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, 2012; Secan, Egel, & Tilley, 1989).

As shown in this extract, Ten begins his conversation with no preamble while he seems to endeavor to communicate with his mother. However, consequently, this behavior is responded to by the mother as inappropriate as indicated by her initiation of repair. Yet, 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 diagnosed with ASD, displays some difficulty in designing talk for a recipient as manifested by the recipient's response. As with Extract (61), Duke's (D) abrupt topic shift is followed by his mother's (M) repair initiation.

(62)[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 abruptly shifts the topic and starts talking about the tongs." I think the tongs are there". The mother initiates repair by using open-class repair initiator (Drew, 1997) "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 (62), 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. On the other hand, his behavior appears to try to continue a conversation with the mother. 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 carried out the repair in a way that his mother found to be appropriate, and this was indicated by the closing of the repair sequence and the progressivity of the interaction.

Thus far, repair sequences related to the aspects of adolescents with ASD showing 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.

(63)[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 accomplishes repair displays 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 carries out 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 achieved by Duke's confirmation. As shown, this repair segment exhibits Duke's interactional competence of managing other-initiation of repair.

This section first illustrated infelicities in production by adolescents diagnosed with ASD as displayed in repair sequences. Similar to the research outlined earlier in this chapter, both Ten, a Japanese adolescent diagnosed with ASD, and Duke, the Australian adolescent with diagnosed 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 section then examined an instance in which Duke, an Australian adolescent, successfully dealt with repair initiation. Contrary to the previous research, Duke oriented toward what the mother needed to know and completed the repair.

6.7. Repair Other-Initiated and Other-Repaired by Mother

Recipients may occasionally carry out other-repair on problematic talk. As noted in

Chapter 3, it is rare to find cases of other-initiated repair that lead to other-repair in ordinary interaction. Typically, if the recipients in a talk manifest problems in hearing or understanding, they may initiate repair, but they for the most part leave the speaker of the trouble source to complete the repair proper (Schegloff, Jefferson, & Sacks, 1977; Schegloff, 2007). However, Schegloff et. al. (1977) also mentioned the possibility that other-repair may occur more frequently in interactions in which not-yet-competent speakers participate.

In the current data set under analysis, as can be seen in Table 1 above, I found two cases in which the Japanese mother initiated and carried out repair on her son's utterances during their interaction. In the following extracts, Extract (64) and Extract (65), Mother (M) corrects a proper noun, referring to a location, which her son (Ten) produced. These instances exemplify other-initiated other-repair in interaction, an interactional sequence which occurs rarely in ordinary conversation. However, we can see it occurring here in the mundane talk between the Japanese adolescent with ASD (Ten) and his mother (M). Consider the following two extracts.

(64)[Cat Park 3:50]
01 M: ↑*Ten cha::n*
Ten TL
"Ten chan"
02 T: *nani::*
what
"what"
03 M: *getsuyo::bi (.) getsuyoubi kara doko ikundakke,*
Monday Monday from where going
"Where are you going from Monday?"
04 T: *kashinoke*
kashinoke
"Kashinoke"
05 M: ***<kashinote>*** **(0.5)** ***<ho::mu>***
kashinote home
"Kashinote Home"

06 T: densha?
train
"Train?"

The mother acquires Ten's attention by calling his name just before she initiates a new sequence " ↑*Ten cha::n* (Ten chan)." According to Uchida and Nishimura (2013), who described the characteristics of people diagnosed with ASD, people with ASD are more likely to misunderstand the intention of a question posed by others, confuse the relationship between a speaker and a recipient, and manifest difficulty understanding whether a question is addressed to them or not. The mother's action of calling Ten's name before beginning the question-answer sequence seen in here may have been produced by taking into consideration the typical characteristics of people with ASD. In response to the mother's summons "*nani::* (What?)" in line 3, the mother proffers a known-answer question, a question she knows the answer to beforehand. "*getsuyo::bi* (.) *getsuyoubi kara doko ikunndakke*, (Where are you going from Monday?)" In everyday conversation, asking a question usually means that someone who does not know the answer asks something to someone who might know the answer. Consequently, the mother's act as seen here is not a common event found in daily conversation. On the other hand, in classroom settings, and institutional context, teachers take the lead in constructing question-answer sequences in order to facilitate student learning. For this purpose, teachers frequently employ known-answer questions in the classroom to elicit responses from students. In this sense, this mother's questioning behavior is similar to teacher questioning. As Ten answers "*kashinote*" (line 4), the mother performs as a response an other-initiated other-repair to correct the workplace's name "<*Kashinote*> (0.5) <*ho::mu*> (Kashinote Home)" (line 5). Instead of responding to the mother's repair, Ten seems to abruptly change the topic "*densha?* (train?)" 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 is likely to exhibit a lack of recognition or comprehension of the repair. Taking this finding into consideration, the absence of Ten's agreement of acceptance appears to show his nonrecognition or non-comprehension of the mother's repair. In this extract, the mother attempts to provide Ten with the correct name of the workplace, but Ten does not seem to be able to locate the repairable and, therefore, no repair proper is achieved.

As with Extract (64), the following example is the mother's other-initiated repair on Ten. This example illustrates the mother's preference for correcting Ten's inappropriate word usage.

(65)[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 recieve 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 whether Dad is going there with them "*otousan wa ikanai¿* (Isn't Dad going?)". In line 2, the mother gives an answer which implies that the father is going because he is the only one who can drive "*otousan no kuruma de iku no*, (We are going by Dad's car.)". As Ten asks with a slightly rising intonation "*Honda¿*" in line 3, the mother responds to him by adding the name of the car model, *Insight*. Despite the mother's previous utterance of traveling to the grandfather's house by the father's car, Ten asks his mother "*mukae ni kitekure nai¿* (Isn't Dad picking us up?)". In line 6, the mother confirms his question with "*mukaeni::* (pick up) with a sound stretch that notifies the recipient of the possibility of a subsequent repair. The mother then produces " *ja nakute* (not)", thereby negating Ten's preceding utterance "*mukae ni kitekure nai¿* (Isn't Dad picking us up?)" and projects that a correction is forthcoming. Following this, the projected correction "*okutte tte kureru no.* (Dad is taking us to the grandfather's house.)" is arrived. Therefore, the trouble source "*mukaeni* (pick up)" is discarded through deployment of "*ja nakute*", which prefaces the prior as incorrect and replaces it with 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 unfortunately it is inaudible. In overlap with the final part of Ten's utterance, the mother produces questions to check his understanding (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 de¿* (How many people?)". As is the case with Extract (64), Ten's lack of agreement or acceptance of the other repair from the mother is likely to coincide with a lack of recognition or comprehension of the repair.

As seen in this extract, the mother's preference was for repairing her son's inappropriate word usage 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 section exemplified two cases of other-initiated other-repair. The mother's orientations toward Ten was to teach him the workplace's name and to correct his misuse of language. As Schegloff et al. (1977) mentioned, "other-initiated other-repair occurs more frequently in interactions among not-yet-competent speakers," and it can be said that Ten is a "not-yet-competent speaker," which led to other-initiated other-repair from the mother. The conversation between the mother and Ten was in some way similar to a conversation between a teacher and a student in an educational setting. In other words, the mother may on occasion uses pedagogical resources to further communication with her son.

6.8. Chapter Summary

In this chapter, we have seen how Japanese and Australian adolescents diagnosed with ASD deal with interactional repairs that arise in conversation with their caregivers. Firstly, I examined two adolescents' self-initiation of repair. Both adolescents exercised self-initiation of repair without any major difficulties. Specifically, Duke, an Australian adolescent, performed two types of self-repair: insertion repair and utilization of the repair preface "or", thus exhibiting his interactional competence. The focus then changed to instances in which adolescents with ASD's initiated repair on their mothers' utterances. A Japanese adolescent, Ten, performed repair initiation as a confirmation check on his mother, which is commonly seen in mundane conversation. Nonetheless, in another instance, Ten's misuse of a case

particle and incapability to share context with others were made evident. These finding are consistent with features of people diagnosed with ASD discussed in previous studies: People diagnosed with ASD tend to have problems with pragmatic language use and social communication. On the other hand, an Australian adolescent, Duke smoothly performed other-initiation of repair on his mother's utterances. It is noteworthy that he was able to utilize various techniques to locate a repairable. Next, this chapter explored how Japanese and Australian adolescents diagnosed with ASD behaved when confronted with repair initiation from their mothers. They exhibited characteristics consistent with those of people with ASD, who have problems with social interaction, such as changing the topic without any preamble and displaying difficulty designing talk to fit the recipients' turns. These problematic actions consequently caused the mothers' repair initiation. However, there was also an instance in the current data set in which an Australian adolescent dealt with the mother's repair-initiation smoothly. He tried to meet the needs of the mother and coped with her repair initiation without any clear difficulties. Contrary to what previous studies suggest, this finding demonstrates that the Australian adolescent is capable of conducting a conversation that shows appreciation of the perspective of others. This chapter lastly discussed other-initiated other-repair in the interaction between a Japanese adolescent and the mother. In sum, the practices deployed by this mother may be comparable to or resonate with those deployed by teachers in educational settings.

CHAPTER 7
CONCLUSION

The concluding chapter of the present study is divided into four sections. Section 1 summarizes the main findings of Chapter 5 and Chapter 6. Section 2 then suggests some implications of the findings of this study. Section 3 discusses the limitations of the study, and in the final section, I provide future research directions based on the analysis conducted in this study.

7.1. Main Findings

Employing Conversation Analysis (CA), this study has investigated the interactional competence of individuals diagnosed with Autism Spectrum Disorder (ASD) by analyzing two different aspects: (a) topic management and (b) repair organization.

In Chapter 5, I discussed topic management practices deployed by Japanese and Australian adolescents diagnosed with ASD and their respective mothers.

First, in the case of the Japanese adolescent diagnosed with ASD, six conversational examples were observed. The results showed his competence to initiate new topics in conversation with his mother by manipulating routinized questions. In addition, he also manifested the competence to strategically utilize routinized questions to maintain interactions with his mother while demonstrating difficulty responding to Wh-questions, which is one of the challenges for individuals diagnosed with ASD.

Next, through detailed observation of three conversation extracts of the Australian adolescent diagnosed with ASD, I examined two phenomena: topic initiation and topic shift. When initiating a new topic, he inserted a disjunctive marker "oh" to alert his interlocutor that he had just come up with something that was disconnected from the previous topic. He then placed a continuation marker "and" as a sign to continue the interaction. Regarding topic

shift, two different actions were observed. The first action is that he shifted a topic without interrupting the progressivity of the conversation by inserting the continuation marker "and." The second action is that he avoided direct rejection of his mother's request by deploying a disjunctive marker "oh" after some delays and non-answer responses. In this regard, he has a high level of interactional competence that shows that he is able to take his interlocutor into consideration.

As described in the literature review of this dissertation, contrary to the characteristics of individuals diagnosed with ASD who are considered to have problems interacting with others, the Australian adolescent diagnosed with ASD manifested sophisticated interactional competence.

The last part of Chapter 5 addressed mothers' strategies for maintaining conversations with their sons diagnosed with ASD. Both the Japanese mother and the Australian mother maintained interactions with their respective sons by repeatedly deploying questioning formats. Consequently, the mothers' practices increased their sons' opportunities to respond and were influential in managing, maintaining, and preserving conversations with their sons. Furthermore, the Australian mother utilized an imperative sentence to boost his opportunities for response and repeated her son's utterance to facilitate his active involvement. This mother's behavior was similar to a teacher's pedagogical techniques that help to prompt a learner's active participation in classroom interaction.

Chapter 6 investigated how Japanese and Australian adolescents diagnosed with ASD coped with interactional repairs that occurred in conversations with their mothers.

First, I discussed the two adolescents' self-initiated self-repair. Both adolescents performed self-initiation of repair smoothly. Significantly, the Australian adolescent exercised two different types of self-initiated self-repair: insertion repair and the use of the repair preface "or", thus manifesting his interactional competence. I then analyzed instances in which two autistic adolescents initiated repair on their respective mothers' utterances. The

Japanese adolescent with ASD performed repair initiation for a confirmation check on his mother, which is frequently seen in mundane conversation. Nonetheless, we have seen an instance in which he misuses a case particle, and his incapability to share context with others were consistent with the hallmarks of findings on individuals diagnosed with ASD, in which those with ASD are reported to have problems with pragmatic language use and social communication. On the other hand, the Australian adolescent diagnosed with ASD smoothly carried out other-initiation of repair on his mother's utterances by utilizing various techniques such as using a question word, adding a question word to the preposition, and repeating his mother's previous utterance. These findings revealed his interactional competence to cope adequately with problems that arose during conversation with others.

Next, this chapter examined how Japanese and Australian adolescents diagnosed with ASD dealt with repair initiation from their mothers. They occasionally manifested characteristics consistent with individuals with ASD, who are considered to have problems with social interaction, including abruptly changing topics and showing difficulties designing talk to fit the recipients' turns. These problematic behaviors consequently led to the mothers' repair initiation. The Japanese adolescent diagnosed with ASD exhibited difficulties in managing to cope with the mother's repair initiation. In the case of the Australian adolescent, he exhibited difficulties with interpreting what the mother repaired to. On the other hand, he coped with the mother's repair initiation without any clear difficulties and tried to meet the mother's needs. Contrary to what previous studies suggest, his behavior revealed a capability to conduct a conversation fluently and consider the perspective of others.

Lastly, Chapter 6 discussed other-initiated other-repair by the Japanese mother in the interaction with her son diagnosed with ASD. The mother's orientation here was to teach and correct his misuse of language. Their conversation was shown to be similar to a conversation between a teacher and a student in an educational setting.

7.2. Implications

The findings of this study have several implications for research on special needs education for students diagnosed with ASD. Moreover, the findings are significant for studies on interventions for children diagnosed with ASD.

The main focus of this study has been on examining the interactional competence of adolescents diagnosed with ASD through the analysis of two different phenomena: topic management and repair organization, which are crucial in interactions with others.

Recently, a number of studies have been conducted in relation to communication and pragmatic language use in individuals diagnosed with ASD. Most of these studies, however, currently focus on the difficulties faced by people diagnosed with ASD and their behavior that is sometimes considered to be inappropriate by others during social interaction (e.g., Baron-Cohen, 1989; Kanner, 1943; Tager-Flusberg, 1996). Therefore, the findings in this dissertation fill a gap in our knowledge by focusing on the communicative competence of those adolescents diagnosed with ASD.

First, this study offers some implications for studies on special needs education for students diagnosed with ASD. By providing an explicit description of the interaction between Japanese and Australian adolescents diagnosed with ASD and their respective caregivers, this study points out that the communicative behaviors of adolescents diagnosed with ASD as seen in this data set, although sometimes seen as problematic, actually function as fundamental communicative strategies for interacting with others. For example, the data analyzed in this study revealed that the routinized questions produced by a Japanese adolescent diagnosed with ASD are unique and effective techniques for initiating and maintaining interaction. In addition, the present study also highlighted that the abrupt topic shift by Japanese and Australian adolescents diagnosed with ASD led to other-initiation of repair by their mothers. However, this study found that the abrupt topic shifts were attempt to communicate with their caregivers and a strategy to avoid responses to Wh-questions, which

is considered difficult for individuals with ASD. Thus, the findings of this study imply the needs for teachers in educational settings to recognize what appears to be inappropriate utterances and behaviors by students diagnosed with ASD is in fact communicative techniques that include various meanings rather than simply viewing them as problematic.

Moreover, an analysis of the practices of mothers of adolescents diagnosed with ASD also provided some implications that may be insightful to teachers in educational settings. For example, both the Japanese mother and the Australian mother repeatedly deployed questions to maintain conversations with their sons and provided opportunities for extended response. Additionally, the Australian mother used an imperative sentence and repeated her son's utterance to increase his chance for response and to facilitate his active involvement in the interaction. Thus, these mothers' actions may be clues to possible practices that could inform a teacher's pedagogical techniques that might help to facilitate active involvement of students diagnosed with ASD in classroom activities.

The implications of the findings from this study are also important for research concerned with various interventions for children diagnosed with ASD. In particular, research on parent-mediated interventions for children with ASD is a type of therapy that focuses on helping parents develop strategies and skills to support their children's development and cope with the challenges associated with ASD. Considering this point, the strategies identified in this study that were employed by the Japanese and Australian mothers when communicating with their autistic sons, such as deployment of question formats, use of imperative sentences, and modification in question design in the absence of response from their sons, and so forth may potentially be applied to parent-mediated interventions and thus contribute to advancement in intervention programs.

7.3. Limitations

The present study has several possible limitations regarding: (a) the two data sets are

not equal in length, and (b) the participants' manifest different levels of ability. One of the limitations of this research project is the length of the data. The data used in this study consisted of two data sets: a Japanese adolescent diagnosed with ASD and his mother, and an Australian adolescent diagnosed with ASD and his mother. Both adolescents were audio and video-recorded by their respective mothers in the living room of their homes due to instability from strangers and unfamiliar environments. The Japanese data consists of 10 hours and 30 minutes because the Japanese adolescent with ASD is accustomed to being video-recorded by his mother. In comparison, the Australian data consist of only 30 minutes of video-recording since the Australian adolescent with ASD is not comfortable being video-recorded. In this regard, more careful consideration of characteristics of individuals diagnosed with ASD as well as further improvement of video recording techniques, will be needed to record further interaction.

Moreover, the two adolescents diagnosed with ASD who cooperated with this research project had different levels of disability. In the Japanese data, the adolescent had intellectual disability in addition to ASD. In contrast, in the Australian data, the adolescent did not have any other disabilities. In this sense, the different degree of the participants' disability may have led to somewhat biased findings.

Finally, the analysis revealed that neither the Japanese nor the Australian data exhibit the phenomena of self-initiated other-repair associated with word-searching by adolescents diagnosed with ASD. In this regard, by examining utterances in other people with ASD other than the two autistic adolescents who participated in this research project, it may be possible to determine whether or not the absence of the phenomenon of self-initiated other-repair is a characteristic of people with ASD.

7.4. Directions for Future Studies

This study explored the interactional competence of adolescents diagnosed with ASD.

Despite the limitations, this study has laid a foundation for different arenas of future research. To further expand this research area, it would be beneficial to focus on the following aspects in future studies.

First, through examination of the current data, I noticed some communicative competencies of adolescents that are different from the previous studies, including appropriate turn taking, utterances that fit recipients' needs, and the use of the Japanese final particle "ne." It would be possible to unveil the interactional competence of individuals diagnosed with ASD by examining these behaviors in future studies.

Second, future studies need to explore the interactions of individuals with conditions other than ASD, such as Down syndrome, intellectual disability, and compare their interactions to those of individuals with ASD. By doing so, it will be possible to highlight more characteristics of individuals with ASD and contribute to future studies on ASD as well as those on special needs education.

Finally, since only two adolescents diagnosed with ASD participated in this research project, the amount of data I was able to collect was limited. Therefore, it is difficult to generalize findings from this study. In order to further research in this area, it is necessary to analyze and clarify the interactions of not only males but also females with ASD, as well as individuals with ASD of all ages, from infants to adults.

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APPENDICES

Appendix A: Transcription Conventions

[ ]	overlapping talk
=	latched utterances
(0.0)	timed pause (in seconds)
(.)	a short pause
co:lon	extension of the sound or syllable
co::lon	a more prolonged stretch
.	falling intonation (final)
,	continuing intonation (non-final)
?	rising intonation (final)
¿	a rise stronger than comma but weaker than a question marker
underline	emphasis
↑	sharp rise
↓	sharp fall
° °	passage of talk that is quieter than surrounding talk
< >	passage of talk that is slower than surrounding talk
> <	passage of talk that is faster than surrounding talk
hh	audible exhalation
.hh	audible inhalation

(hh)	audible laughter within a word
-	cut-off of the ongoing talk
(( ))	comment by the transcriber
( )	problematic hearing that the transcriber is not certain about
" "	translation of Japanese utterances

Appendix B: Abbreviations Used in Interlinear Gloss

IP	Interactional particle (e.g., ne, yo, no)
Nom	Nominative (e.g., ga)
ACC	Accusative (e.g., o)
Gen	Gentive (e.g., no)
Top	Topic marker (e.g., wa)
SUB	Subject marker
PST	Past
TL	Name
TAG	Tag-like expressions
NEG	Marks negation

Appendix C: Research Consent Form (English)

The purpose of this video record is to examine how language is used in real interaction. The researcher has no pre-established focus at the certain areas of the interaction. The examination will to pay attention to the correctness or errors in language use, but will observe the participants' way of achieving communication in the particular social interaction.

The participants' name will remain anonymous as the research papers would use a pseudonym. The video, audio, and pictures from the video will be used only for the research purposes and will be viewed by professional researchers. In case of publications of the snapshots from videos in scholarly journals, the pictures will be blurred so that participants will be unidentifiable (as in the picture below). The participants' privacy will be completely protected.

I_____voluntarily agree to the use of my audio and video data in the research with the purpose described above.

Date:_____

Eriko Kamei
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Appendix D: Research Consent Form (Japanese)

録画・録音データ収集および使用の許可書

私 _____ はここで行われる会話をビデオ録画又は（および）録音する目的の説明を十分に受けました。

よって、およびそのデータを学術目的で使用することを許可いたします。

（西暦）　　年　　月　　日

署名 _____

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ANALYSIS OF PRAGMATIC COMPETENCE OF ADOLESCENTS DIAGNOSED WITH AUTISM SPECTRUM DISORDER: TOPIC MANAGEMENT AND REPAIR IN FAMILY INTERACTION WITH CAREGIVERS

ERIKO KAMEI