Constructing "development"

A historical discourse analysis of newspapers

regarding the creation of terminology and public

discourse on Autism and *Hattatsu Shogai* in Japan

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Abstract

        This dissertation analyzes the linguistic influence of public policies on public discourse on Autism and *Hattatsu Shogai* in Japanese newspapers. With respect to theoretical frameworks and methodologies of three frameworks, disability studies, Critical Discourse Analysis (CDA), and text mining, qualitative and quantitative analyses are employed.

        With these analyses, two major discoveries were made. First, newspaper texts do not separately represent the two conflicting models of disability, medical model and social model. In other words, these two models are mutually represented for expressing characteristics, policies, and practices toward *Hattatsu Shogai*. Second, negation, for instance *nai* ("not"), has function both in the medical model for criticizing people's ability and in the social model for criticizing the social barrier toward persons with disabilities. Thus, this finding shows the possibility of the application of theoretical models of disability for linguistic analysis. We can hypothesize that these conflicts occur as the consequence of global transition of disability policy represented by the United Nation's *Convention of Rights of the Persons with Disabilities*, globalization of thoughts on disability in Japan, and progress in medicine and special education.

        The author offers the outcome of this research for improvement of professional education in journalism, education, and social work. Additional systemic analysis of individual words in conjunction with disability models, as well as other issues, is suggested for further analysis.

博士学位申請論文要旨

この論文は、日本における自閉症および発達障害に関する新聞記事を通じた公的言説の形成における公共政策の言語的影響を分析するものである。3 つの理論枠組みおよび方法論―障害学、批判的ディスコース分析、そしてテキストマイニング―をもとに、定量的・定性的分析をおこなった。

上記の分析により、主に 2 点が明らかになった。1 点目は、対立的に扱われる二つの障害モデル―医学モデルと社会モデル―が、新聞紙上においては切り分けられていないことである。換言すれば、2 つのモデルは発達障害に関する特徴、政策、そして支援実践を説明するにあたり相互作用的に用いられていることになる。2 点目としては、否定表現―たとえばナイ助動詞―が、人間の能力を批判するための医学モデル的用法と、社会的障壁を批判するための社会モデル的用法の双方を持つことである。つまり、この点は言語分析において理論的障害モデルを応用する可能性を示した。

仮説としては、以上 2 点の背景には国際連合による障害者権利条約の制定に象徴される国際的な障害者政策の転換、日本における障害に対するグローバリゼーションの影響、そして医療及び特別支援教育の進歩などが考えられる。

筆者は、この研究の成果を報道、教育、社会福祉などの専門家育成教育に応用することを展望している。一方、個々の言語的表現と障害モデルの関係における体系的な分析などが課題として残されている。

Introductory notes

1. The number of words per line and of lines per page for this dissertation is organized accordingly to the rule that the Graduate School of Policy Studies at Kwansei Gakuin University specifies.

2. For English sources, the formatting rule of references for this dissertation follows Publication Manual of the American Psychological Association (6th. Ed), published by American Psychological Association (APA). Application of the APA rule for Japanese sources follows the guideline crafted by the University of British Colombia Library (n.d.).

3. This dissertation Romanizes Japanese terms and references with the Hepburn Romanization system unless specified.

4. Following the APA's manual, which suggests authors to use person-first language, the author of this dissertation states "person(s) with disability (disabilities)", not "disabled person (people)", unless specified. However, this action does not mean that the author totally endorse the person-first language movement based on the politically correctness culture of the U.S. The author makes this decision to use person-first language in order to demonstrate his understanding of a de-facto academic standard.

5. The Japanese word 新聞 that means "newspaper" is romanized as *shinbun* with the Hepburn Romanization system. This word is, however, romanized as *shimbun* in case a particular newspaper company uses this spelling for their company and product names as proper nouns.

6. Parts of this dissertation are adopted from the author's earlier publications and presentations, as well as from the survey paper, which the author of this dissertation submitted to the Graduate School of Policy Studies at Kwansei Gakuin University in 2014. The author modified formatting, style, and coherence particularly for this dissertation.

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Although limitations of space make it impossible to mention the names of all individuals, let me mention the name of one professor: Dr. Masataka Jin'nouichi. I studied under him for a small project when I was a master's student in 2006. He was a really sincere reader and mentor for many graduate students, including myself. I still remember one occasion when Dr. Jin'nouchi strongly encouraged me to continue my research on disabilities. Dr. Jin'nouchi passed away in 2012, but I wish I could show this dissertation to him in heaven.

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I shall not forget the gifts that have enabled my achievement.

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Yasushi Miyazaki

List of abbreviations

APA: American Psychological Association
CDA: Critical Discourse Analysis
CO: Cabinet Office (Japan)
CRPD: *The Convention on the Rights of Persons with Disabilities*
DHA: Discourse-Historical Approach
JSDS: Japan Society for Disability Studies
KGU: Kwansei Gakuin University
MEXT: Ministry of Education, Culture, Sports, Science and Technology (Japan)
MOJ: Ministry of Justice (Japan)
SDS: Society for Disability Studies
SFL: Systematic Functional Linguistics
SSE: Special Support Education
UPIAS: Union of the Physically Impaired Against Segregation
UK: The United Kingdom of Great Britain and Northern Ireland
UN: United Nations
U.S.: The United States of America

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Introduction

This dissertation aims to examine the interaction of discourse, public opinion, and policy action. For the investigation, the author applied these three frameworks: disability studies, Critical Discourse Analysis (CDA), and text mining. In other words, this research stands on a sociopolitical position for language study and its methodology is mixed-approach consisting of quantitative and qualitative perspectives.

In Chapter 1 "*Hattatsu Shogai*", the background of research, focusing on law and policy, is outlined. Then problems of definitions, focusing on the chronological change and international difference, are stressed. Finally, this chapter mentions that *Hattatsu Shogai* is a social problem and reviews social science research, rather than medical research.

In Chapter 2 "Theoretical framework and methodology", the author reviews exiting works of three frameworks/methodologies: disability studies, Critical Discourse Analysis (CDA), and text mining. In particular, this Chapter mentions the familiarity between disability studies and critical discourse analysis, focusing on critical perspective on social phenomenon and concepts with strong attention to language use and their common relationships to social theories, including Critical Theory. This chapter incorporates the further discussion on models of disability.

The author proposes six research questions extracted from the review of the Chapters 1 and 2. The questions are as follows:

(1)   How does the Japanese society and politics affect the policy about *Hattatsu Shogai* throughout the newspaper?

(2)   What kind of ideology is behind the specific language expression about *Hattatsu Shogai*?

(3)   What kind of topics regarding *Hattatsu Shogai* are frequently mentioned in print media?

(4)   How has the frequency of mention of the subject of *Hattatsu Shogai* changed?

(5)   How has the definition of *Hattatsu Shogai* changed over recent decades?

(6)   What are the agents of changes?

With the above questions, the author attempts to investigate the public discourse focusing on language use.

In the Chapter 3 "Analysis", the author conducted the whole-corpus analysis. In this study the digital text of newspaper articles from five major

newspapers in Japan are retrieved: *the Asahi Shimbun*, *the Yomiuri Shimbun*, *the Mainichi Shimbun*, *the Nihon Keizai Shimbun*, and *the Sankei Shimbun*. This is a whole-corpus analysis of the function of linguistic devices and the relation of topics, using network analysis, hierarchical cluster analysis, and qualitative analysis of concordance lines.

In the Chapter 4 "Case studies", the author investigates two issues. The former case study discusses the usage of negation and its relation with policy. Here the author focuses on the enactment of the *Hattatsu shōgaisha shienhō*, a special act for recognizing social support for persons with *Hattatsu Shogai*. The qualitative analysis reveals that the diversity of subject in sentences varies the meaning of negation. The quantitative analysis reveals that the act does not make any significant impact on the frequency of word usage of negation. Thus, the effect of policy action is observed in a qualitative sense, rather than in a quantitative sense. The latter case study on definition, independence, and labor attempts a qualitative analysis on editorials regarding *Hattatsu shōgaisha shienhō*. Here the logical flow to label persons with *Hattatsu Shogai* and encourage their independence based on such marginalization. However, the investigation about the encouragement of independence and work for the persons is reserved for further study

In Chapter 5 "Discussion", the responses to each research question are outlined.

In Chapter 6 "Policy recommendation", the author proposes the implication of discourse studies on disability, including this study. The focus of proposed implementation is social work, special education, and journalism. The challenges to be met are mentioned as well.

In Chapter 7 "Conclusion", the author outlines both positive and negative impacts of marginalization via language use. Avenues of further investigation are also outlined.

1. *Hattatsu Shogai*

1.1 Background

In Japan, *Hattatsu Shogai* is becoming one of the most critical issues of social welfare, education, and social policy. *Hattatsu Shogai* is defined as follows, by Japanese law (*Hattatsu shogaisha shienho* [December 10, 2004, Law No., 167; The Persons with Developmental Disorders Support Act], 2004):

> 第二条　　この法律において「発達障害」とは、自閉症、アスペルガー症候群その他の広汎性発達障害、学習障害、注意欠陥多動性障害その他これに類する脳機能の障害であってその症状が通常低年齢において発現するものとして政令で定めるものをいう。

Article 2[i]
In this act *Hattatsu Shogai* refers to Autism, Asperger's Syndrome, other pervasive developmental disabilities, learning disorder, attention deficit hyperactivity disorders, or similar brain disorder, those symptoms usually appear on earlier age, as the cabinet order states.

In this act, the definition of *Hattatsu Shogaisha* (persons with developmental disorders/disabilities) follows. This definition is revised in 2016.

> ２　　この法律において「発達障害者」とは、発達障害がある者であって発達障害及び社会的障壁により日常生活又は社会生活に制限を受けるものをいい、「発達障害児」とは、発達障害者のうち十八歳未満のものをいう。

Article 2 Paragraph 2[ii]
In this act *Hattatsu Shogaisha* refers to a person with *Hattatsu Shogai*, and the person who bears limitation in daily and social life due to *Hattatsu Shogai* and social barriers; *Hattatsu Shogaiji* means *Hattatsu Shogaisha* whose age is less than 18 years.
(*Hattatsu Shogaisha Shienho* [December 10, 2004, Law No., 167; The Persons with Developmental Disorders Support Act], 2004; Final revision on June 3, 2016 with Law No. 64)

The big trigger of this revision is that Japan has attempted to ratify *the Convention of Rights of Persons with Disabilities* (CRPD; United Nations, 2006). One of the main focuses of CRPD is the reasonable accommodation for persons with disabilities in order to prevent them from social discrimination. As Japan

officially recognize *Hattatsu Shogai* as a disability, *Hattatsu Shogaisha Shienho* reflects the CRPD idea on social barrier. *Shogaisha Kihonho* (Act No. 84 of May 21, 1970; Basic Act for Persons with Disabilities) treats *Hattatsu Shogai* as a subcategory of mental disability as follows[iii]:

> 第二条　この法律において、次の各号に掲げる用語の意義は、それぞれ当該各号に定めるところによる。
> 一　障害者　身体障害、知的障害、精神障害（発達障害を含む。）その他の心身の機能の障害（以下「障害」と総称する。）がある者であつて、障害及び社会的障壁により継続的に日常生活又は社会生活に相当な制限を受ける状態にあるものをいう。

> Article 2　In this Act, the meanings of the terms listed in the following items are as prescribed in the respective items.
> (i)　　"Person with a disability" refers to a person with a physical disability, a person with an intellectual disability, a person with a mental disability (including developmental disabilities), and other persons with disabilities affecting the functions of the body or mind (hereinafter referred to collectively as "disabilities"), and who are in a state of facing substantial limitations in their continuous daily life or social life because of a disability or a social barrier.

This dissertation, however, begins with questioning the formation of this term. That is because, among the history of medicine and social policy, the definition has been created both medically and politically.

Hattatsu Shogai has been a problem in education and social policy. In the context of education, a committee in the Ministry of Education, Culture, Sports, Science and Technology (MEXT, 2003) in Japan concluded that their survey, conducted in 2002, for general education classroom teachers responded that the ratio of students indicated as "showing significant difficulties either in learning aspects or in behavior aspects" was 6.3%. In 2015, similar survey conducted by MEXT indicated the figure for the above item as 6.5% (MEXT, 2015)[iv]. Although it is almost impossible to guarantee the accuracy of this survey, as debate is ongoing regarding the research design of this survey, it may be true that this survey triggered the political action including special needs education reform and activation of *The Persons with Developmental Disorders Support Act* in 2004.

Thanks to the above policy action, the people who used to be treated as anxious people or children have been increasingly treated as people or children with special needs (Kosaka, 2009) calls this trend *seisaku taishōka* (the policy objectification). Those actions, however, look like the practices for modifying

persons' weakness, rather than maximizing persons' strength. Such a perspective, looking at persons' medical deficit primarily, is named the "medical model" (Barnes & Mercer, 2010). Conversely, the perspective that claims the disability is caused by the social structure is named the "social model" (Ibid.).

The social-model-like thinking is not new, as I discuss later. Masayuki Shimizu, a pioneer of juvenile psychiatry in Japan, claims that persons who might be diagnosed as Asperger's Syndrome used to avoid complex social interaction and polish their working skill in a workforce, such as a craftsman (Shimizu, 2005). Also, Shimizu claims that such diagnosis imported from the West might not benefit anyone. His suggestion connotes the difference of view for persons on Autism Spectrum, which we observe their characteristics in either way: positive or negative. Below is Shimizu's argument (Shimizu, 2005: 103)[v]:

Although being respectfully shunned and treated as lucid masters, as fastidious men, as persons who do not like socializing, as unreasonable men, they were trusted with respect to their jobs. Because of this, others distanced themselves from them, so that the persons themselves might better concentrate on their principal occupations. As a result, they could improve their techniques as a master craftsman. I assume that there was such a story. … If we reason as though they are lacking "sociality," being bad at "communication," and having difficulty sharing sympathy, and if we use a foreign-made diagnosis, who could benefit and how so?

From the above observations as the author's literature review suggests, this project aims to examine public discourse, questioning how the discourse, public opinion, and policy action have interacted (Figure 1.1).
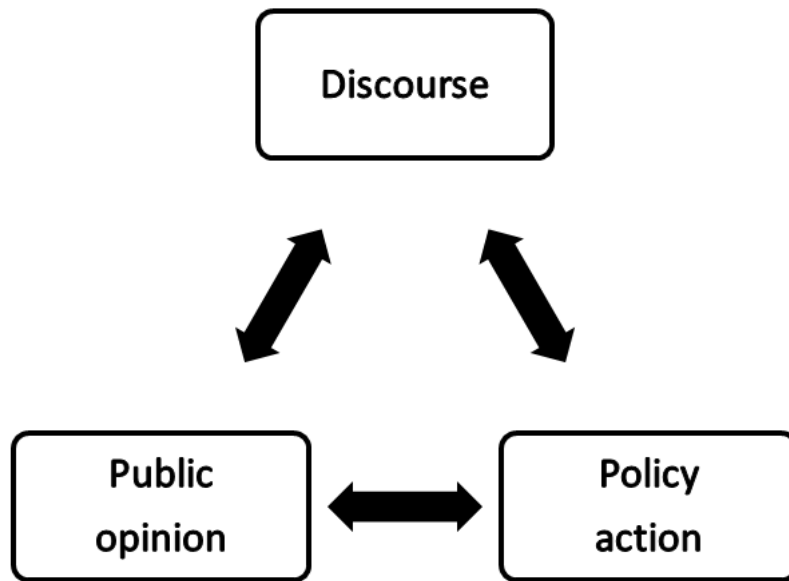
Figure 1.1 Function triangle of discourse, public opinion, and policy action

1.2 Definition problems

Definition of *Hattatsu Shogai* in international context often causes confusion. That is because *Hattatsu Shogai* is originally a translation of "developmental disabilities" of the educational policy in the United States, but Japanese law has set a different definition afterwards. Here I depict the definition difference. In the United States of America, according to The Developmental Disabilities Assistance and Bill of Rights Act of 2000 (PUBLIC LAW 106–402—OCT. 30, 2000 114 STAT. 1677), definition of developmental disability in U.S. federal law is as follows (Table 1.1):

Table 1.1 Definition of developmental disability in U.S. Federal Law

DEVELOPMENTAL DISABILITY—	
A. IN GENERAL—The term "developmental disability" means a severe, chronic disability of an individual that—	
	i. is attributable to a mental or physical impairment or combination of mental and physical impairments;
	ii. is manifested before the individual attains age 22;
	iii. is likely to continue indefinitely;
	iv. results in substantial functional limitations in 3 or more of the following areas of major life activity:
	v. Self-care.
	vi. Receptive and expressive language.
	vii. Learning.
	viii. Mobility.
	ix. Self-direction
	x. Capacity for independent living.
	xi. Economic self-sufficiency; and
	xii. reflects the individual's need for a combination and sequence of special, interdisciplinary, or generic services, individualized supports, or other forms of assistance that are of lifelong or extended duration and are individually planned and coordinated.
(*The Developmental Disabilities Assistance and Bill of Rights Act of 2000 (PUBLIC LAW 106–402—OCT. 30, 2000 114 STAT. 1677)*)	

This legal definition of developmental disabilities is quite comprehensive. Several different disabilities such as intellectual disabilities, epilepsy, and cerebral palsy could be included.

The definition of developmental disabilities has been crafted in U.S. (Takahashi, 1991). In contrast, the Japanese definition of *Hattatsu Shogai*, which is written in medical jargon, is more concrete and less inclusive, as I stated above by citing the legal definition in Japan.

A few articles on *Hattatsu Shogai* in Japan translate this word in different ways. Goto (2008) translates *Hattatsu Shogai* as "developmental disabilities". His way of handling the term in English is visible in his translation of *Hattatsu Shogaisha Shienho*: "People with Developmental Disabilities Support Act (hatatsushōgaisha shien hō)". Aside from that, Teruyama (2009; 2014) expresses *Hattatsu Shogai* with roman spelling of the original Japanese term; i.e. the title of her essay: "Envisioning diversity: politics of the *Hattatsu Shōgai* movement in Japan". My position is similar; we should use the original term when we discuss a

culture-dependent concept. Based on this position, the author mainly uses Hattatsu Shogai for his further analysis and discussion for this dissertation.

1.3 Social problem

In Japan, sociologists and psychiatrists have provided critical perspectives on development of the social construction of *Hattatsu Shogai* in Japan. In the field of Sociology, Tateiwa (2014) has reviewed memoirs of Japanese persons with *Hattatsu Shogai*; his perspective is that, *Hattatsu Shogai* itself does not have to be necessarily problematized. Moreover, Tateiwa (2014)'s suggestion is that the persons with diagnoses strategically apply their diagnoses for easing their own blame for the life difficulties. Takenaka's contribution (2008) is to analyze the communication behavior of persons on Autism Spectrum with Sociological theories. He tried understanding the characteristics of persons with Autism not as the deficit, but as cultural characteristics. One of the latest contributions to this debate is Kimura (2015), who discusses the inner conflict of therapists serving persons with *Hattatsu Shogai*; the therapists struggled between the therapeutic practice and learning/practicing knowledge of *Hattatsu Shogai*. Goto (2008) has discussed the social construction of Special Needs Education reform, targeting children with *Hattatsu Shogai*, and he urged the possibility of surveillance of those children for avoiding crimes. Sociology has played a critical role in analyzing the human relations of persons with *Hattatsu Shogai*. Suzuki (2013) also suggests that juvenile crime might have been reasoned with public discourse on *Hattatsu Shogai*. (Suzuki, 2013)

Interestingly, although it could be said that sociology should play a role in analyzing social system of Japan constructing *Hattatsu Shogai*, some Psychiatrists have delivered more critical opinion on this matter. N. Ishikawa (2005) strongly criticizes *Hattatsu Shogaisha Shienho*, saying that this act would segregate persons on Autism Spectrum with strengthened surveillance and overmedication.

With respect to the above review of literature, the author argues that social scientists and humanities scholars should import practitioners'' perspectives either with literature or with field work, in order to conduct effective and influential research on social problems.

2. Theoretical framework and methodology

This dissertation stands on multiple emerging fields of social sciences and humanities. These are interdependent and interdisciplinary. Here I review the theories which are the basis of the methodology used for this dissertation.

2.1 Disability Studies

Disability studies is an emerging field for observing and analyzing disability from the perspective of persons with disabilities. Society for Disability Studies (SDS) (n.d.) in the U.S., founded in 1982, defines the "Disability Studies" as follows in their official website:

- Challenging the view of disability as an individual deficit or defect that can be remedied solely through medical intervention or rehabilitation by "experts" and other service providers. Rather, a program in Disability Studies should explore models and theories that examine social, political, cultural, and economic factors that define disability and help determine personal and collective responses to difference. At the same time, Disability Studies should work to de-stigmatize disease, illness, and impairment, including those that cannot be measured or explained by biological science. Finally, while acknowledging that medical research and intervention can be useful, Disability Studies should interrogate the connections between medical practice and stigmatizing disability.
- Studying national and international perspectives, policies, literature, culture, and history with an aim of placing current ideas of disability within their broadest possible context. Since attitudes toward disability have not been the same across times and places, much can be gained by learning from these other experiences.
- Encouraging participation by disabled students and faculty, and ensuring physical and intellectual access.
  Prioritizing leadership positions held by disabled people; at the same time, it is important to create an environment where contributions from anyone who shares the above goals are welcome.

In Japan, 障害学会 (*Shōgai Gakkai*, Japan Society for Disability Studies; JSDS) was founded in 2003. The by-law of JSDS defines 障害学 (*shōgaigaku*, Disability Studies) as follows (JSDS, 2012):

第 2 条　本会は、障害を社会・文化の視点から研究する障害学 (Disability Studies)の発展・普及と会員相互の研究上の連携・協力を

はかることを目的とする。

Article 2:
This Society aims for developing and promoting Disability Studies, which researches disability from the social and cultural perspective, and for collaborating research by members.

Substantially, cultural/social perspective and subjective perspective to disability is not new in Japan at the time of the foundation of JSDS. Nagase (2008) and Tateiwa (2011) stress that a self-advocacy group of persons with cerebral palsy named 青い芝の会 [*Aoi shiba no kai*, "The society of green grass"] objected against paternalism toward themselves and their argument was the origin of the social model, discussed in latter sections.

Nevertheless, two critical points, which are shared between American Disability Studies and Japanese Disability Studies, should be noticed: (1) a respect for the critical perspective of disabled people themselves and (2) an interdisciplinary approach and academic diversity. Besides, Sugino (2007: 219-223) stresses that the big difference between Disability Studies in UK/U.S. and Japan is the distance between disability activism and academics. Moreover, Sugino's argument focuses on the fact that disabled people have been underrepresented in Japanese higher education. Also, Taylor (2006: xiii) mentions: "neither Disability Studies nor Disability Studies in Education represents a unitary perspective". Taylor (Ibid.) also argues that "central to a Disability Studies perspective is the assumption that disability is a social construction or, if one prefers, creation". In other words, the strength of disability studies is not applying a particular and solid method and perspective of academic discipline, but diverse methods and disabled peoples' perspective. These authorities imply that disability studies is neither strongly united activism nor a concrete academic discipline. Disability Studies is, however, an emerging field which is open to theoretical controversy and methodological challenges.

One important characteristic is that disability studies apply models for analyzing disability. Models of disability is how or from where we see the disability. Moreover, disability studies have tried to make social change for claiming rights of disabled people. In fact, one of the oldest models of disability, called the "social model", is claimed by a disabled people's self-advocacy group, the Union of the Physically Impaired Against Segregation (UPIAS, 1975). However, because the social model was initiated by people with physical disabilities, one limitation is that its application to persons with other types of disabilities, especially to persons with *Hattatsu Shogai*, is underrepresented. The latter sections will discuss the application of models of disability to Autism

Spectrum. Consequently, one of possible contribution of this dissertation is to apply disability studies theory and empirical methods, which demonstrate social construction of Autism, and broadly *Hattatsu Shogai* in Japan.

2.1.1 Models of disability[vi]

This chapter describes the models of disability; it is appropriate to classify how the scholars and practitioners have observed the disabilities, as disability studies as one of theoretical frameworks, as well as CDA as discussed in Chapter 2, in this study respects the models of disability.

2.1.1.1 Significance and framework
2.1.1.1.1 Significance

It is still possible for practitioners and researchers to analyze disabilities with their experimental knowledge. The knowledge lacks, however, a clear perspective for evaluation. The models of disability provide us the measurement instrument. As we look at a mountain, the mountain looks differently from different location. Similarly, different perspective offers us to see the different shape of the mountain. This nature differentiates action toward persons with disabilities. Some models claim that disability is sorely caused by medical deficit. Some models claim that disability is caused by social system. Some models claim that disability is caused by interaction of both. Thus, it is extremely important to characterize the models of disability and to understand those differences and similarities. This paper offers some examples of analysis on models based on literature review.

2.1.1.1.2 Framework for characterizing models

The models mentioned in further subsections stress the nature of the support which a disabled person can be given. One way of comparing variant models of disability, suggested by Buntinx & Shalock (2010) and augmented by the author, is in terms of the features noted in the table 2.1. The author of this dissertation mentions additional features.

Table 2.1 Features of models of disability

(1) A clinical assessment, such as an International Classification of Functioning, Disability and Health (ICF) diagnosis, introduced by World Health Organization (WHO)
(2) The persons with disabilities' selfness on his/her quality of life and revelation (merged with suggestion by Shakespeare, 2013)
(3) The need for and the availability of supports. (merged with suggestion by Miyazaki and DeChicchis, 2012)
(4) Attention to interpersonal relationships
(5) Social oppression (Shakespeare, 2013)
(6) Relation between individual, the disability, and the functions of the individual (Liachowitz, 1988)
(7) Legislative attention (Smart, 2009)

Applying the aforementioned points, the following models will be characterized.

2.1.2 Traditional models of disability
2.1.2.1 Religious model

Smart (2009:4) states, "Only Moral/Religious Model has a longer history than the Biomedical Model". In terms of this, upon reviewing the models of disability, it should be stressed that it would be difficult for many scholars to define the religious model per se. The tentative definition, however, could be the model that conceptualizes the disability accordingly to religious thought. Clapton and Fitzgerald (n.d.) suggests a Judeo-Christian perspective on disability as follows:

These embodied states were seen as the result of evil spirits, the devil, witchcraft or God's displeasure. Alternatively, such people were also signified as reflecting the "suffering Christ", and were often perceived to be of angelic or beyond-human status to be a blessing for others. (Clapton & Fitzgerald, n.d., para. 6)

However, Miles (2002) argues that "Christian theologians have long pondered the meanings of disability without reaching definite answers" (Miles, 2002:121). Miles (2002) reviews perspectives on disabilities from several religions: Judaism, Christianity, Islam, Hinduism, and Buddhism. Quoting the words of a Muslim with disability, Miles suggests that Islamic thought gives people with disabilities a chance for challenge to himself/herself. Aside from that, Miles (2002) mentions the conflict between Western and Buddhist culture as "The cherished Western notion of the autonomous individual self is challenged by those

parts of Buddhist thinking that stress the interdependence and interexistence of all." (Miles, 2002:122) In addition, Hinduism has a tradition of recommendation of charity. The most important point of Miles's discussion, however, is that "Religion, culture, socialization, the communal life of your neighbourhood, were all closely interwoven." (Miles, 2002:126) This means that, although a "religious model" could be designed per se by scholars, the model could not interpret disability solely in terms of religious thought. It could be characterized with (2) and (3). In addition, it is important that the religious thought for disability has justified the charitable attitude to persons with disabilities, as many hospitals and social service institutions have been established by religious groups.

2.1.3 Medical model

Medical practitioners and several scholars have applied the Medical Model for analyzing disabilities and practice toward the persons with disabilities. Those discussions are quite interdisciplinary; practitioners and scholars within several different fields have written about the model. Llewellyin and Hogan (2000) state, "The medical model views all disability as the result of some physiological impairment due to damage or to a disease process" (Llewellyin & Hogan, 2000: 158). Llewellyin and Hogan's idea incorporates (1), but they are also interested in (3), as they state: "It should be borne in mind that the evaluation of the person's present level of functioning might also play a role in shaping his or her future and thereby influence the course of later development". (Llewellyin & Hogan, 2000: 159). According to Bricourt et al (2004), the medical model incorporates (1), (2), (3), and (6). With perspective of economics, Mitra (2006) mentions the Medical Model. The Medical Model incorporates (3).

There is a similar term: "biomedical model". Similarly, Reindal (2008) applies the term "biomedical model". Here it should be stressed that some reservation on criticizing biomedical model: the model exclusively focuses on individual factor of the person with disability. Smart (2009) also uses a similar term, "The biomedical model", and it incorporates (1) and (3).

Although different models are introduced by several scholars, the two main opposing models are the medical model and the social model. "The medical model of disability is one rooted in an undue emphasis on clinical diagnosis, the very nature of which is destined to lead to a partial and inhibiting view of the disabled individual". (Brisenden, 1998: 20).

In the context of discourse analysis, which will be mentioned in the next section, the medical model, mentioned by Grue (2011), incorporates (1) and (3).

Considering the above analysis of literature, the medical model or a similar model mostly incorporates (1) and (3), clinical assessment and need for supports. The characteristic (3) could have some social aspects, but that could

connote that this characteristic requires a medical perspective.

2.1.4 Social model and nontraditional models of disability

Earlier research has identified problems with the "medical model" of disability. However, the distinction between a medical model and an alternative nonmedical model is not black and white. Rather, there are several alternatives to the traditional medical model. Some alternatives stress the importance of the disabled person's quality of life. Here several scholarly literatures will be discussed accordingly to the authors.

Using the features mentioned earlier, we can easily compare the four models described by Ziebland et al. (1993). Their "functional model" is characterized solely by (1) its reliance on clinical assessment. Their "subjective distress model" incorporates (2) the self-assessment of the disabled person. Their "comparative" model also relies on (1) a clinical assessment, in this case the older ICIDH (the International Classification of Impairments, Disabilities and Handicaps) diagnostic system. Their "dependence model" incorporates the measurement of the severity of disability using the ADL scale, which is (1) a clinical assessment; however, this "dependence model" is using the clinical assessment to determine (3) the need for supports.

In the context of social work, Llewellyin and Hogan (2000) describe four models: medical model, social model, systems theory, and transactional model. The two earlier models have their basis on physical disabilities and the two latter ones have their basis on psychological theories. In addition, these of the medical model, the social model incorporates (5). However, both Shakespeare (2013) and Llewellyin and Hogan (2000) hereby mention that the social model lacks attention to the actual medical deficit of disabled people. The systems theory is hereby defined as "a systems approach to the study of children with physical disabilities involves examining the dynamics that can drive and accelerate the course of development by examining the synergistic influence of the features of the person, and of the environment that produces the behavior." (Llewellyin and Hogan, 2000: 160). This model cooperates (1), (2), and (3), as that model keeps its attention to the psychological thinking. In addition, this model applies the ecological perspective. The last one, the transactional model, incorporates (2), (3), and (4). This model focuses on emotional attitude to the environment. In sum, Llewellyin and Hogan's analysis do not deny medical and psychological thinking, even on discussing the social model that is sometimes argued for denying medical thought.

Also in the context of social work, Bricourt et al (2004) examines four models: the medical model, the social model, the transactional model, and the systems model. The social model incorporates (5) and (7). This model is mentioned as a sort of synonym of the "minority model". The transactional model

incorporates (2), (3), and (6). With the ecological approach, the systems model incorporates (1), (2), (3), (5), (6), and (7), as they mention this model as "putting it all together" on their paper's chapter title (Bricourt et al, 2004: 53). Bricourt et al (2004) mentions Llewellyin and Hogan (2000) as their use of systems analysis.

In the context of Norwegian special education, Reindal (2008) evaluates four models: the social creationist model, the social constructionist model, the interactionist model, and the biomedical model. Recognizing criticism of special needs education, such as professionals' disagreement and failing integration (Reindal, 2008: 135), Reindal's perspective on disability models is a classification of models with materialist and idealist thoughts. We cannot evaluate the features of each model in Reindal's paper, because she does not provide us the details of each model in her English paper, which is in her Norwegian paper (cf. Reindal, 2007); but I lack sufficient proficiency to fully understand her Norwegian paper. Importantly, Reindal urges: "All the four models acknowledge that there is some initial biomedical condition that causes reduced function by the individual." (Reindal, 2008: 139) In other words, we cannot ignore medical factors when discussing, applying, and practicing even "social model" or closer ones, if the practitioners and scholars accept Reindal's argument.

In the context of American special education and with a philosophy of education perspective, Danforth (2001) evaluates three models: the functional limitation model, the minority model, and the social constructionist model. The functional limitation model incorporates (1), (3), and (7). The minority model incorporates (5), (6), and (7). These two models have different perspectives on the characteristic (7). The former focuses on administrative function of the law on disability policy, and the latter focuses on civil rights. The social construction model incorporates (5).

Batavia & Schriner (2001) examines civil rights model or minority group model and independent living model, related with the discussion of Americans with Disabilities Act (ADA). The civil rights model or minority group model incorporates (5) and (7). The independent living model incorporates (3) and (6). "However, both the civil rights and independent living models are also unduly oversimplified and do not adequately consider other substantial factors such as individual, family, and cultural variables, which are important in predicting the ability to live independently and productively" (Batavia & Beaulaurier, 2001, as cited in Batavia & Schriner, 2001: 692).

In the context of the self-advocacy of people with learning difficulties (i.e. intellectual disabilities or developmental disabilities) in the United Kingdom, Goodley (1997) examines the individual model and the social model. The individual model incorporates (1), (2), and (3). The social model incorporates (2) and (5). Importantly, both models have attention to (2). However, they have

slightly different focus; the former focuses on applying "self-determination" for seeking support needs, although "Self-determination of people with learning difficulties is a concept that lies uneasily within the dominant model of disability." (Goodley, 1997: 369) Besides, the latter focuses on empowerment and its nuances are more political.

With the perspective of economics, Mitra (2006) examines four models: the medical model, the social model, the Nagi model, and the International Classification of Functioning (ICF). The social model incorporates (2) and (5), the Nagi model incorporates (3) and (6). The Nagi model, which Mitra (2006) names, is based on Nagi's (1965) functional limitation paradigm. It is important to stress that the Nagi model's focus is the limitation of persons with disabilities. Still, Nagi (1965:102) also argues, "It should be noted that the degree of limitation is not dependent only on the type of impairment but also on the nature and requirements on these roles and activities." His argument connotes the existence of interactionist perspective for observing disability. The International Classification of Functioning (ICF) means International Classification of Functioning, Disability and Health that is invented by World Health Organization (WHO). This incorporates (1) and (6). Mitra's (2006) analysis applies Amartya Sen's the Capability Approach (cf. Sen, 2002). Applying Sen's theory, disability is classified into potential disability and actual disability (Mitra, 2006: 242). More importantly, "the ICF does not cover circumstances that are not health related (Bickenbach, Chatterji, Badley, & Üstün, 1999), such as socioeconomic factors." (Mitra, 2006: 242). This implies that WHO's classification does not consider any sociopolitical factor.

Swain & French (2000) propose an affirmation model that was sophisticated in the context of the disability arts movement. The affirmation model is contrasted with the personal tragedy model, which represents the disability as the figure of pity. In the affirmative model "The affirmation of positive identity is necessarily collective as well as individual." (Swain & French, 2000: 577). Moreover, being contrasted with the social model, in the opinion of Swain and French (2000), the social model is oriented in the societal system and the affirmative model emphasizes the individual experience. The affirmative model incorporates (2), (3), (5), and (7). About this model, the characteristic (7) focuses on policy implication rather than legislation.

Harn (1988) is one of the first scholars to propose the Minority-Group model. She expressed the thought on attitude towards persons with disabilities. Harn (1988: 43) opposes functional-limitations model, which focuses on medical deficits of persons, as "empirical studies based on functional-limitations model of disability have not identified existential anxiety as a single component of attitudes toward disabled persons". The minority-group model incorporates (2), (5), (6),

and (7).

The social model of disability is emerged from the disability activism in the UK (UPIAS, 1975) and claims they the cause of disability origins from the social system. Slightly differently, U.S. sees the disability as caused by interaction of individual and culture, presumably due to the civil-rights activism, including African-American and Feminism in the country (Sugino, 2007).

Other models are claimed in the history of rehabilitation research. Smart (2009) suggests three models: the biomedical model, the functional model, and the sociopolitical model. The functional model incorporates (3), (6), and (7). The Sociopolitical model incorporates (2), (3), (5) and (7). In particular, originality of the sociopolitical model is that policymakers and practitioners are included in the group of stakeholders for a particular problem. Moreover, in the context of the sociopolitical model, legislation aims at the protection of the rights of clients (Smart, 2009). For foreseeing the possibility of further development of models of disabilities, the later sections briefly discuss two fields, which models of disabilities have rarely dealt with.

2.1.5 Application of models: autism spectrum

Different types of disability have been discussed outside these models. For instance, Autism spectrum has been rarely discussed in disability models in the social sciences and humanities. Metaphors such as "World Wide Web" (Blame, 2004), and "epitome" (Fromm, 1973) are critically analyzed as the result of medical epistemology toward the concept of Autism (Waltz, 2008). Broderick and Ne'eman (2008) criticize the medical-model and parent/professional oriented discourse on Autism metaphor as follows:

> Metaphors of space, of geographic separateness, are common throughout many of the titles cited above, and have been common metaphors drawn upon for decades in autism discourse. Two common variations on this metaphor of there being a cultural/geographic space that is somehow traversed in autism are the notions of (1) the autistic person arriving from a foreign space, the metaphor of the 'alien', and (2) the autistic person retreating or withdrawing behind a 'wall' or into a 'shell' (Broderick and Ne'eman, 2008: 463).

Autism and developmental disorders are the subjects that are rarely discussed with the social model. Probably because the social model has emerged from the activities for rights of persons with physical disabilities (UPIAS, 1975), the social model has nearly ignored the Autism and developmental disorders. My literature search did not find any literature regarding the correlation of the social

model and Autism. Several debates, however, are ongoing on the social construction of Autism and developmental disorders. On Asperger's Syndrome (AS), reviewing medical literature, Molloy and Vasil (2002) argue that "academic scholarship and, consequently, educational practice in AS, and more broadly special education, must go beyond a deficit perspective, and incorporate and legitimize the experiences and understandings of the children that we are labelling." (Molloy and Vasil, 2002: 668).

2.1.6 Application of models: analyzing discourse

Discourse provides practitioners the further understanding for persons with disabilities, which is significantly useful for planning intervention (Igarashi, 2008). The term "Discourse" is used slightly differently with linguistic view and with sociological one, but it is clearly important aspect to understand and develop the practice.

In the context of Critical Discourse Analysis (CDA), Grue (2011) classifies four exclusive models of disability. Critical Discourse Analysis is a movement for linguistic social research on the text (e.g. Fairclough, 1995). Grue's models are the social model, the minority model, the gap model, and the medical model. The social model incorporates (5). The minority model incorporates (7). The gap model incorporates (3) and (7). The focuses of (7) are different between that of the minority model and that of the gap model; the former focuses on the civil rights and the latter focuses on the administrative function of law.

Here I mention some points and critique of Grue's analysis on the models of disability. First, Grue criticizes the social model as a fruit of Marxist Sociology. One of his critiques is that "A frequently raised criticism of the model is that it has been constructed around an 'ideal' disabled person – a male wheelchair user belonging to a dominant ethnic group, who suffers no significant health problems because of his impairment." (Grue, 2011: 538). In fact, several scholars including Chris Bell, a "Black" (African-American) scholar and activist in Disability Studies, criticized the racist idea behind the social model (C. Bell, 2010). Grue's analysis should be examined carefully, but at least we should note that the disability model could be ideologically biased. Second, the minority model regards disability as a cultural group that should be embraced in a multicultural society. Third, the gap model is a majority model in Scandinavian countries. This critique is important in a Japanese context, as Japanese scholarship and bureaucracy admire Scandinavian policies as good practices of social policy in "The Welfare State", regardless of critiques of Scandinavian innate eugenic ideas (e.g. Ichinokawa, 1999). In addition, for a scholar who employs thesis focusing on discourse on the emergence of *Hattatsu Shogai* [developmental disorders] as a *seisaku taishō* [Target of policy] (Kosaka, 2009), Grue's argument on the gap

model is suggestive: "It is also an entry point into the fourth and most problematic model." (Grue, 2011: 540). Fourth, the medical model, as Brisenden (1998) argues, focuses on the medical deficit of the individual.

2.1.7 Discussion on disability models

Debate on models of disability often focuses on the nature of dichotomy between the two, between the medical model and the social model, but it is not simple. Sometimes, the social model has been criticized for its lack of medical attention and the medical model has been criticized of its lack of social attention. The hybrid models have been invented by several scholars and practitioners in several different field, including rehabilitation, social work, special education, and economics. These movements connote that medical deficit and social system are non-exclusive elements.

In this paper seven features of models of disability have been mentioned. The significance of emphasizing these models is the balancing between the responsibility of persons with disabilities and the society. As stated above, the social model is triggered by the resistance against oppression for persons with disabilities (cf. UPIAS, 1975).

The table 2.2 visualizes the features of disability models mentioned above, with simpler division: the traditional and nontraditional models. From the left to right of the seven features, the focus moves from the micro-level to the macro-level.

Table 2.2 Distribution of features on models of disability

	Models	(1) A clinical assessment	(2) Selfness	(3) Supports	(4) Interpersonal relationships	(5) Social oppression	(6) Individual, disability, and functions	(7) Legislative attention		
Traditional	Religious model (Miles, 2002)		✓	✓						
	Medical model (Llewellyin and Hogan, 2000)	✓		✓						
	Medical model (Bricourt et al, 2004)	✓	✓	✓			✓			
	Medical model (Mitra, 2006)			✓						
	Biomedical model (Smart, 2009)	✓		✓						
	Medical model (Grue, 2011)	✓		✓						
Nontraditional	Social model (Llewellyin and Hogan, 2000)					✓				
	Social model (Bricourt et al, 2004)					✓		✓		
	Social model (Goodley, 1997)		✓			✓				
	Social model (Mitra, 2006)		✓			✓				
	Functional model (Ziebland et al, 1993)	✓								
	Subjective distress model (Ziebland et al, 1993)		✓							
	Comparative model (Ziebland et al, 1993)	✓								
	Dependence model (Ziebland et al, 1993)	✓		✓						
	Systems Theory (Llewellyin and Hogan, 2000)	✓	✓	✓						
	Transactional model (Llewellyin and Hogan, 2000)		✓	✓	✓					
	Transactional model (Bricourt et al, 2004)		✓	✓			✓			
	Systems model (Bricourt et al, 2004)	✓	✓	✓		✓	✓	✓		
	Functional limitation model (Danforth, 2001)	✓		✓				✓		
	Minority model (Danforth, 2001)					✓	✓	✓		
	Social construction model (Danforth, 2001)					✓				
	Civil rights model / minority group model (Batvia and Schriner, 2001)					✓		✓		
	Independent living model (Batvia and Schriner, 2001)		✓				✓			
	Individual model (Goodley, 1997)	✓	✓	✓						
	Nagi model (Mitra, 2006)			✓			✓			
	ICF (Mitra, 2006)	✓					✓			
	Affirmatrion model (Swain and French, 2000)		✓	✓		✓		✓		
	Minority-group model (Harn, 1988)		✓			✓	✓	✓		
	Functional model (Smart, 2009)			✓			✓	✓		
	Sociopolitical model (Smart, 2009)		✓	✓		✓		✓		

(The table header spans a range marked Micro ◄────────► Macro)

As the above table suggests, nontraditional models have accommodated both micro-and macro-level features. On the other hand, traditional models mainly stand on micro-levels. Such tendency is not changed drastically diachronically. Although classification is based on the author's own interpretation of individual literature, the existence of complexity of medical and social thinking in nontraditional models is clear.

There is a difficulty in balancing regarding analyzing the well-being of persons with disabilities. For instance, imagine that there is a student with a deficit in his leg, who is not able to go upstairs in the school building. The medical model could argue that the student cannot go upstairs because he is injured. The social model could argue that the student cannot go to upstairs because the school building does not have an elevator. Is the reality of his

situation a simple matter like those arguments? Such a question should be answered with "No." If the student could rehabilitate himself well with learning how to use a stick, he could walk up the stairs. Here is the importance of application of medical diagnosis and therapy. If the building should get an elevator, who will pay for the installation? Here the significance of budget analysis could be claimed. What regulation should be applied for the installation? Here the legislative discussion could be applied. As just described, several different factors should be considered for discussing the well-being of persons with disabilities. Naturally, nontraditional models have considered solving the puzzles of analyzing the lives of persons with disabilities.

The history of nontraditional models is the history of the trials and tribulations for seeking balance. It is important to note that the practices in many different disciplines are the basis of the development of nontraditional models. It is easy to ignore those models and to limit the models to the medical model and the social model. However, as civil society is developed further, learning from the development of nontraditional models, at least, is suggestive for the practitioners and scholars regarding their practices and research.

2.2 Critical Discourse Analysis

This dissertation applies methodologies of two research programs: Critical Discourse Analysis (CDA) and text mining. The former is for qualitative analysis and the other is for quantitative analysis. In this subsection I briefly discuss the theoretical background of CDA.

CDA is a large set of methods for analyzing text and social context, developed based on multiple disciplines, such as Philosophy, Linguistics, Sociology, and Psychology. It focuses on relation of power and language (Fairclough, 1995, 2013). This is developed based on diverse disciplines, such as "Rhetoric, Text linguistics, Anthropology, Philosophy, Socio-Psychology, Cognitive Science, Literary Studies and Sociolinguistics, as well as Applied Linguistics and Pragmatics." (Wodak and Meyer, 2009: 1) Briefly, "CDA can be defined as being fundamentally interested in analyzing opaque as well as transparent structural relationships of dominance, discrimination, power and control as manifested in language." (Wodak & Meyer, 2009: 10)

CDA per se is originated by European scholars gathered in Amsterdam for a symposium held in 1991 (Wodak & Meyer, 2009:3). However, the above does not mean methodological foundations had not existed before the emergence of CDA. Two Philosophers can be theoretical icon for early development of CDA.

Sociolinguistics is also a one of the foundational linguistic subfields for CDA. One of earlier linguistic research precedents on the print media is found in Allan Bell (1991). A. Bell (Ibid), trained as a journalist and then switched his

career to a sociolinguist, used corpora of radio speech language and newspaper articles mainly in New Zealand and analyzed language variation of their language usage. This research is sometimes cited as the earlier work related with CDA; however, Bell's work does not focus on politics of language, as CDA does, but on general language variation. Rather, Bell's contribution is demonstration of his critical perspective on process of news language production in media sectors. Consequently, this dissertation tries to analyze the process of formation of *Hattatsu Shogai* concept, throughout the analysis in forthcoming chapters.

Here the author mentions two old intellectual figures as the foundation of CDA. One is a philosopher Mikhail Mikhailovich Bakhtin (1986), who wrote a piece "The Problem of the Text in Linguistics, Philology, and the Human Sciences: An Experiment in Philosophical Analysis". Here Bakhtin stresses that social context is unavoidable for analyzing the text by stating: "units of speech communication—whole utterances—cannot be reproduced (although they can be quoted) and they are related to one another dialogically" (Bakhtin, 1986: 128). The other is Michael Halliday, who crafted Systematic Functional Linguistics (SFL) (Halliday, 1985). Halliday influenced the CDA with theorizing the function and meaning of words in context (Hashiuchi, 1999: 149). This dissertation does not use the SFL framework per se, but the author stresses that the foundation exists in earlier works respecting the attention not only to words themselves, but also to the context.

As noted above, a characteristic of CDA is to criticize the relation of text and context with systemic linguistic methods. I chose this methodology for my assumption that disability is a political problem. As I review latter, CDA has been applied for analyzing diversity of political problems. In the context of disability Studies, which observes disability as a social and political problem, the author would argue that CDA is a powerful analytic tool, as Grue (2015) employs his case studies on disability policy and discourse in Norway.

Besides, we need to be reminded of controversy toward CDA. Breeze (2011) classifies existing critiques, including ignorance toward linguistic theory, confusion on social theories, and lack of objectivity. In order to respond such critiques, the author employs this study with hybrid methods of qualitative and quantitative approaches, such as application of corpus linguistics (e.g. Baker, 2006).

Japanese scholars have developed notable CDA works on media discourse. To name a few, Japanese whaling (Murata 2007), imperialism (Satoh, 2001), bear problem (Knight, 2008), Women's rights movement in Japan Saito (1998) and nationalism on Olympic Games in 2008 Kanda, Yamane, and Takagi (2011) are examined with CDA methodology.

One of the latest works is an anthology of Japanese media discourse

regarding the accident at the Fukushima Dai-ichi Nuclear Plant (Najima & Kanda, 2015). Their studies not only focus on critical insight, arguing that Japanese government and an electronic power company hedges their responsibility of securing safety of people in devastated area of the nuclear plant accident, but also opportunity of newly introduced methodology in CDA community, such as corpus analysis.

Aside from these, about disability discourse, Stibbe (2004) discovered gender bias in the depiction of disability in Japanese television drama. He argued that Japanese inferiority of women to men tend to be depicted as a target of sentimentality (Stibbe, 2004). Particularly on disability and language in Japan, Gottlieb argues: "Changes to public policy will come from the work of lobby groups, not from changes in the language of public documents, but the social milieu into which those policy changes eventually emerge can only have benefited from the inclusive language debate." (Gottlieb, 2001: 993). Although Gottlieb does not examine the close look at language use on documents, but employs macro-level theoretical discussion, she suggests unavoidable effect of language use to the disability policy. Particularly on disability in Japan, Namase (1993) employed a rare study of newspaper discourse on Japanese people with disabilities in the Showa period (1926-1989) of Japanese imperial history, focusing on parents' killing for their children with disabilities. Namase's analysis, however, is rather sociological and historical.

Although news reporting analyses of Autism are few, Jones and Harwood (2009) examined a tendency, including "dangerous" image and MMR (Measles, Mumps, and Rubella) vaccine debate in Australian print media. Similarly, O'Dell and Brownlow (2005) analyzed links between MMR and Autism in British newspapers.

In Japan, research with sociological perspective, yet not linguistic perspective, for discourse studies on *Hattatsu Shogai* have been employed by Sakuma (2012). Sakuma (Ibid.) employed his analysis of the relationship of youth crime and *Hattatsu Shogai* on news coverage of *the Asahi Shimbun*, one of the major newspapers in Japan. He argues that the newspaper puts the responsibility of youth crime not on the criminal himself/herself, but on the poor education by family and school (Sakuma, 2012), and the problem proposes the needs of "appropriate" understanding and support for persons with *Hattatsu Shogai* (Sakuma, 2012). Although not clean, Sakuma's investigation suggests the possibility of application of the social model.

Aside from that, Igarashi (2008) argues that, for the effective practice of nursery teachers for children with *Hattatsu Shogai*, investigation of discourse is important; as characteristics and subjectivity differ from child to child. (Igarashi, 2008:25) Igarashi's opinion connotes the significance of this research not only for

social science or humanities scholars, but also for practitioners. (Ibid.)

Although diverse topics have been explored with CDA with different media analyzed, there is still no CDA research on *Hattatsu Shogai*, after the current legal definition in Japan emerged. As disability studies scholarship has argued that disability is political, legislation-dependent, and identity-dependent (Sugino, 2014: 20-21), CDA has a potential for clarifying power of linguistic and social constructions of *Hattatsu Shogai*. Thus, I will conduct an analysis of *Hattatsu Shogai* with CDA methodology.

One theoretical intersection of Disability Studies and CDA is that both are connected with Critical Theory, a movement emerged from Frankfurt School. Max Horkheimer emerged the term "Critical Theory" (Horkheimer, 1972). This theory "has come to include a wide range of descriptive and normative bases for social inquiry which have the practical aim of maximizing human freedom and ending the domination of some groups by others defined by class, power, race or other social construct." (Hastings, 2008: 3) As the Critical Theory grows, it has been applied for disability and its application is now named "Critical Disability Theory (CDT)" (Devlin & Pothier, 2006). Aside from that, respecting the use of a word "Critical" in Linguistics such as "Critical Linguistics" emerged by Fowler et al (1979), "critical theories, thus also CDA, want to produce and convey critical knowledge that enables human beings to emancipate themselves from forms of domination through self-reflection." (Wodak & Meyer, 2009:7) In sum, Disability Studies and CDA have theoretical compatibility in terms of critical perspective of knowledge emergence toward disability.

Regarding developmental disabilities, Williams (2011) applies micro-level discourse analysis for analyzing the interactions of persons with intellectual disabilities. Her method rarely uses the public discourse that I am going to focus on. Instead, she focuses on with micro-level interactions with the methods of conversation analysis.

The above is the introduction to the theoretical framework and methodological foundation of CDA. In incoming chapters for analysis and discussions, the author will mention some specific tools and frameworks where appropriate.

2.3 Text mining

As noted earlier, this dissertation applies two-hold research methodology with qualitative analysis and quantitative one. For the latter, text mining approach is applied as a complement as the key for more objective evidence of social construction.

Text mining is developed among technological emergence of natural language processing. In Japan, since 1950's, statistical research for Japanese

language has been active, represented by activities by 計量国語学会 (*Keiryō kokugo gakkai* "The Mathematical Linguistic Society of Japan"). Aside from that, with the import of natural language processing and corpus linguistics, computational approach for language analysis has been developed in Japan.

It is important to note that slightly different text mining approach should be applied for English and for Japanese, as these two languages have different syntactic and morphological structures. Here we review mainly the methodological literature on text-mining for Japanese language.

The first important decision that the researcher should make is, on the analysis phase, whether the researcher will use generic program (s) or program(s) for specific purpose. On the one hand, the former way is more flexible for applying various statistical methods, and on the other hand, the latter way is more user-friendly.

Basic methods for corpus development are introduced in Ogino & Tanomura (2011) and Ogino et al. (2011). These resources are important for this dissertation project particularly because issues on copyright and data cleaning are covered.

For the data processing phase, several books introduce the different software. Kin (2012) introduces three software packages, for morphological analysis. The comparison of the result is depicted on Kin (2012:3). The researcher should choose one relevant software package accordingly to his/her own research question and to feasibility on research precedents.

Several books have been published on statistical analysis for Japanese languages, especially aimed for researchers and students of social sciences and humanities. To name a few, Akimitsu (2012) covers basic introduction for statistical data analysis applying R language and includes one chapter for text mining. Comprehensive explanations on statistics for language analysis are on Ishida (2008), Kin (2009), Ishikawa, Maeda & Yamazaki (2010), Matsumura & Miura (2014), and Higuchi (2014). The three former references are mainly on statistics, and the last two combines more introductory statistical introduction and the users' tips for authors' own software.

Ishida & Kin (2012) and Murata & Ueda (2008) are collections of case studies. Some cases on these anthologies include those on newspapers, but no research cover disabilities; it should be noted that text mining on disability issues are still rare, similarly to CDA, on the discussed in this dissertation: disability.

The above is a brief review of text-mining of Japanese language. Technical papers are numerous especially on the field of natural language processing and computer science, but as the introduction, this subsection has mentioned several introductory literatures.

Although corpus approach for discourse analysis is developed earlier

(Baker, 2006), Pollak et al (2011) pioneered the combination of CDA and Text Mining. With example of analysis on newspaper coverage regarding the Kenyan election, they opened possibility of combinational research of public discourse with approaches of CDA and Text Mining. The significance of its combination is stated as follows:

> Since one of the main drawbacks of text mining is that the words are taken out of the context, we creatively exploit text mining tools in combination with linguistic pragmatic analysis to get deeper insight into naturally occurring, contextualized discourse (Pollack et al 2011: 650).

In other words, Pollack et al (2011) proposes the methodological experiment for analyzing big-size objective data without killing context of natural written language. In order to combination objectivity and subjectivity, the author attempts the combination in this dissertation.

The above are a brief review on text-mining on Japanese language. Technical papers are numerous especially on the field of natural language processing and computer science, but as the introduction, this subsection has mentioned key literature.

3. Analysis

3.1 Dataset

The data for this study is retrieved from five major newspapers in Japan, via their own newspaper database. The author used collected digital text data from the newspaper databases of each newspaper company in Japan, and has constructed corpora for these articles containing the search term 発達障害 *Hattatsu Shogai*.

Here is the outline of database for each company:

朝日新聞 *The Asahi Shimbun*: 聞蔵 II ビジュアル [*Kikuzo II Visual*] electronic database for articles are available for digital text (1985-) and for PDF image (1879-1989). Here the author used the former one.

読売新聞 *The Yomiuri Shimbun*: ヨミダス歴史館 [*Yomidasu Rekishikan*] electronic database for articles are available. The Database is divided into Meiji/Taisho/Showa periods and Heisei period of the Japanese traditional calender. Available from 1874.

毎日新聞 *The Mainichi Shimbun*: 毎索 [*Maisaku*] electronic database for articles are available for digital text (1872/3/29-).

日本経済新聞 *The Nihon Keizai Shimbun* (a.k.a. *Nikkei*): 日経テレコン [*Nikkei Terecon*] electronic database for articles are available for digital text (1981-) .

産経新聞 *The Sankei Shimbun*: *The Sankei Archives* electronic database for articles are available. Text data is available from September, 1992.

The table 3.1 indicates the number of articles from each company for Tokyo morning edition, excluding The Yomiuri Shimbun, which cannot specify the region for search query:

Table 3.1 Number of articles in newspaper corpora containing *Hattatsu Shogai* in on-line news databases

	Number of articles	Retrieval date
The Asahi Shimbun	518	7 October 2014
The Yomiuri Shimbun	1044	October 22, 2014 / 12 April 2016
The Mainichi Shimbun	424	22 October 2016
The Nihon Keizai Shimbun (a.k.a. Nikkei)	150	20 February 2016
The Sankei Shimbun	345	20 February 2016

N.B. This number includes a few articles which do not contain full-text in online database, due to copyright issues of each individual article.

The words are counted with KH Coder, a text mining package developed by Koichi Higuchi (Higuchi, 2014; 2016). The Table 3.2 indicates the number of words.

Table 3.2 Number of words in newspaper corpora

	Articles	Extracted words (used)
The Asahi Shimbun	518	430,165 (167,260)
The Yomiuri Shimbun	1044	837,603 (311,318)
The Mainichi Shimbun	424	306,589 (124, 263)
The Nihon Keizai Shimbun (a.k.a. *Nikkei*)	150	80,381 (35,044)
The Sankei Shimbun	345	237,536 (95,387)

In the above table, the first number in each cell on the row "Extracted words (used)" means the total number of words in each text corpus. The second number in brackets means the number of words applied for further analysis with KH Coder; generic words which are used in any kinds of texts and have no strong impact for analysis, such as particles and auxiliary verbs (Higuchi, 2014: 125). However, in the further analyses, the author extracted all the words into statistical processing.

To the yearly change of the number, the author illustrated the change as the format of a line graph (Figure 3.1).
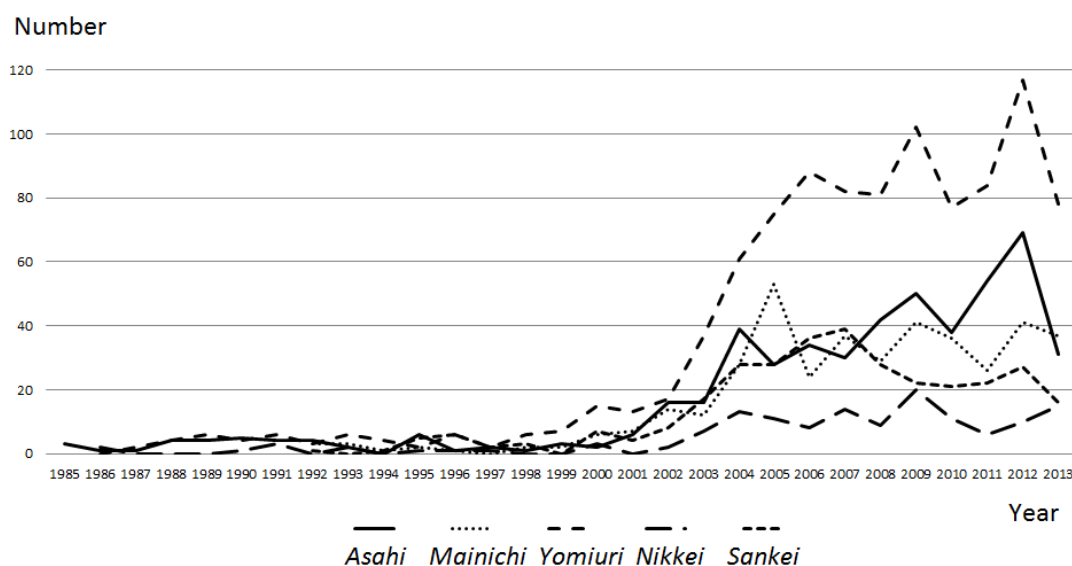

Figure 3.1

Yearly change of the number of articles referring to *Hattatsu Shogai* (Miyazaki, 2014; 2016:55)

As the figure 3.1 indicates (Miyazaki, 2014; 2016: 55, with translation into English), major events happened on the years that the token counts rose. In 1999, the year the token counts started to rise, a committee of MEXT published a report on teaching children with learning disabilities. In 2003, another MEXT report was published on Special Support Education (SSE). In 2005, *Hattatsu shōgaisha shienhō* was enacted. In 2007, *Gakko kyōikuho* (*the School Education Act*) was amended for activating SSE, to officially assist children with *Hattatsu Shogai*. It might be assumed that these events stimulated rising public attention to *Hattatsu Shogai* as reflected in media discourse, with further investigation on policy documents, such as governmental committee meeting report, and so on.

The latter parts of this dissertation will describe and analyze the text dataset mentioned above.

3.2 Quantitative analysis

In this section the author employs the quantitative analysis for the whole corpus using two tools: network analysis (Kin, 2009; M. Murata, 2014; Yasuda, 2001) and cluster analysis (Fujii, Kosugi, and Lee, 2005; Kin, 2009; S. Ishikawa, Maeda, and Yamazaki, 2010). With these two tools, the author attempts to investigate the relation of words and its meanings.

3.2.1 Network analysis
3.2.1.1 Findings

Originally, network analysis in Sociology has been developed attempting to investigate the human relationships in organization and society. The textual analysis is now applying this method to connection of word meaning in textual data. In this analysis, the author tries to analyze the word meaning and its connection regarding the topic of *Hattatsu Shogai*.

The author employs the analysis with KH Coder and shows the result for each newspaper corpus here. The summary of finding for each corpus will be described under the network graph. First, here is the network graph for *The Asahi Shimbun* (Figure 5.2).
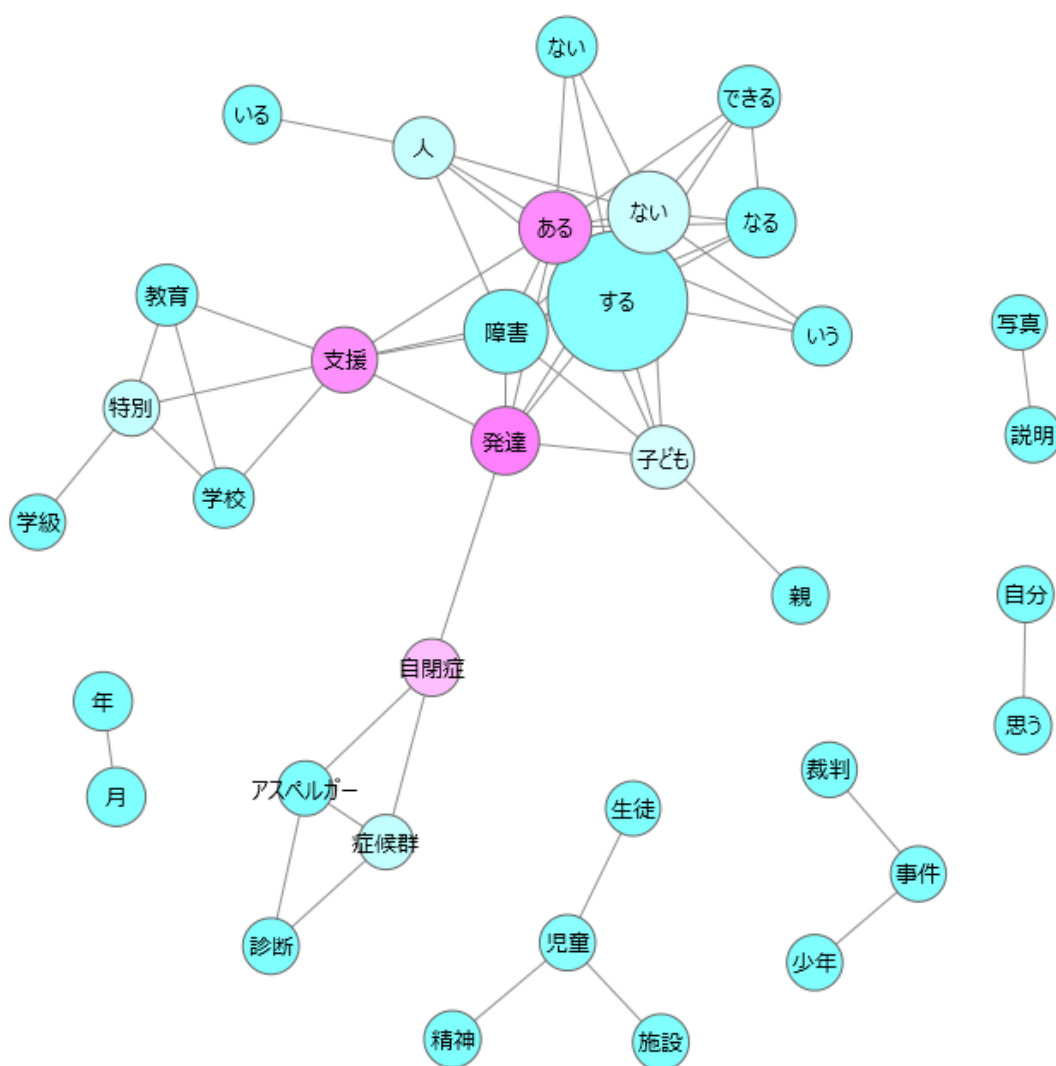
Figure 3.2 Network graph of *the Asahi Shimbun* corpus

Network graphs in this dissertation have circles with three colors. Each color indicates the following different types of centralities (Yasuda, 2001; Higuchi, 2014): betweenness for blue, degree centrality for white, and eigenvector centrality (Bonacich, 1972) for pink, with the KH Coder's setting. The dimension of each circle denotes the extent of the number of word occurrence in the corpus. All the following network graphs are composed with same format. The following paragraphs summarize network graphs for each newspaper corpus one by one. Here the author limits to discuss key characteristics in each graph only.

Here is summary of the network graph for *the Asahi Shimbun* corpus. The minimum word occurrence for this graph is 190. First, the word する (*suru*, "do") has a large number of occurrence and acts as the center of this word network. Second, four words act with eigenvector centrality: ある (*aru*, "exist"), 支援 (*shien*, "support"), 発達 (*hattatsu*, "development"), and 自閉症 (*jiheishō*,

"autism"). 支援 are connected with words associated with schools, a word 発達, and 自閉症, as well as a large groups of words centered by ある. 自閉症 is connected with アスペルガー, 症候群, and 診断: all of these three words are associated with Asperger's Syndrome.

The figure 3.4 shows the network graph for *the Yomiuri Shimbun* corpus.

Figure 3.3 Network graph of *the Yomiuri Shimbun* corpus

Here is summary of the network graph for *the Yomiuri Shimbun* corpus. The minimum word occurrence for this graph is 390. First, only one word 発達 acts with degree centrality. Second, same as *the Asahi Shimbun*, する has a large occurrence. Third, only one word 支援 acts with eigenvector centrality. Fourth, in the bottom of this graph, a large number of words are associated with betweenness, such as 精神 (*seishin*, "mental"), 鑑定 (*kantei*, "examination"),

事件 (*jiken*, "incident"), and 判決 (*hanketsu*, "judgement"). This is a large group associated with juvenile crimes, which the criminals are diagnosed with *Hattatsu Shogai* with sanity hearings: Suzuki (2014) discusses the strong association of juvenile crime and *Hattatsu Shogai* in public discourse in Japan.

The figure 3.4 shows the network graph for *the Mainichi Shimbun* corpus.
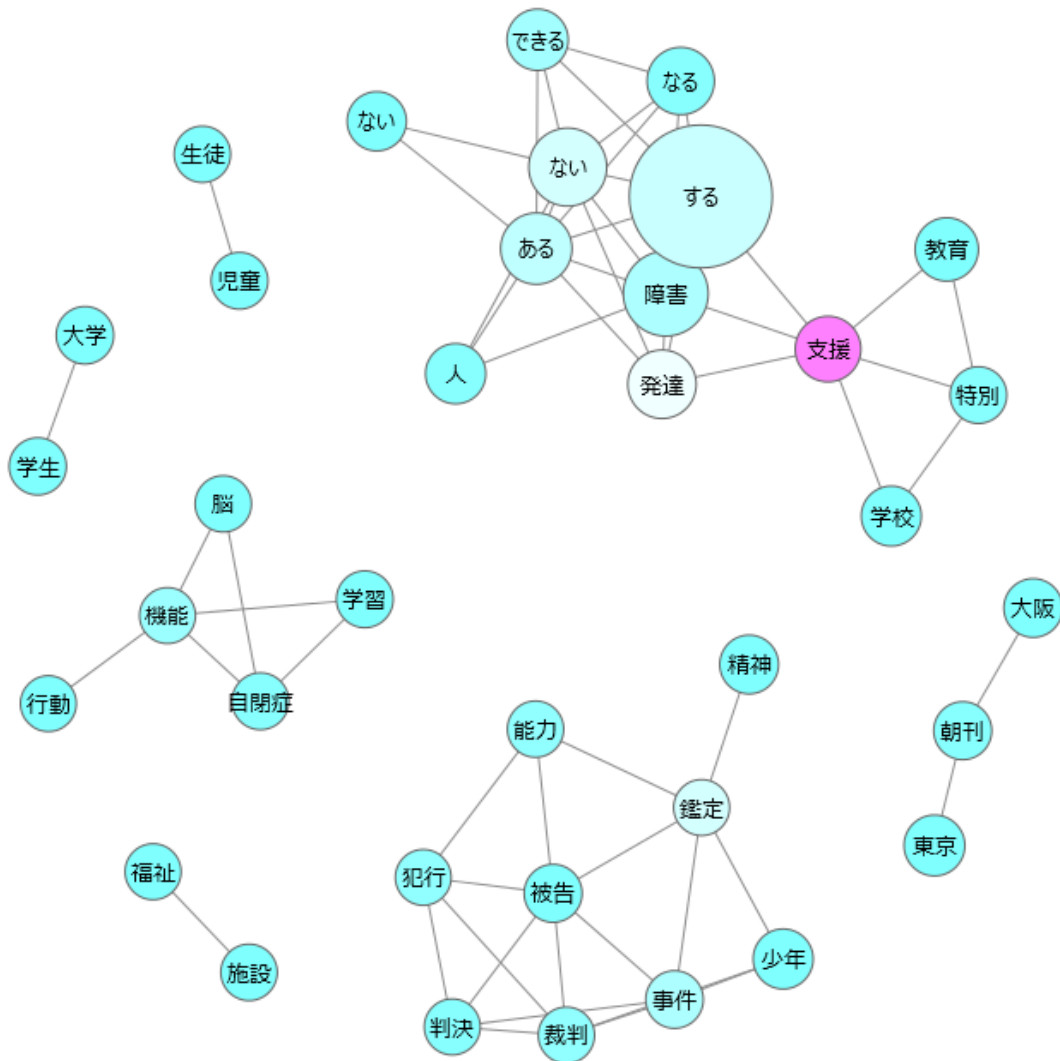

Figure 3.4 Network graph of *the Mainichi Shimbun* corpus

Here is summary of the network graph for *the Mainichi Shimbun* corpus. The minimum word occurrence for this graph is 140. First, similarly with two earlier ones, する has a large occurrence. Second, four words act with eigenvector centrality: 発達, 支援, 知的 (*chiteki*, "intellectual"), and 大会 (*taikai*, "large meeting"). Third, the word 支援 is connected with words

associated with schools.

The figure 3.5 shows the network graph for *the Nihon Keizai Shimbun*
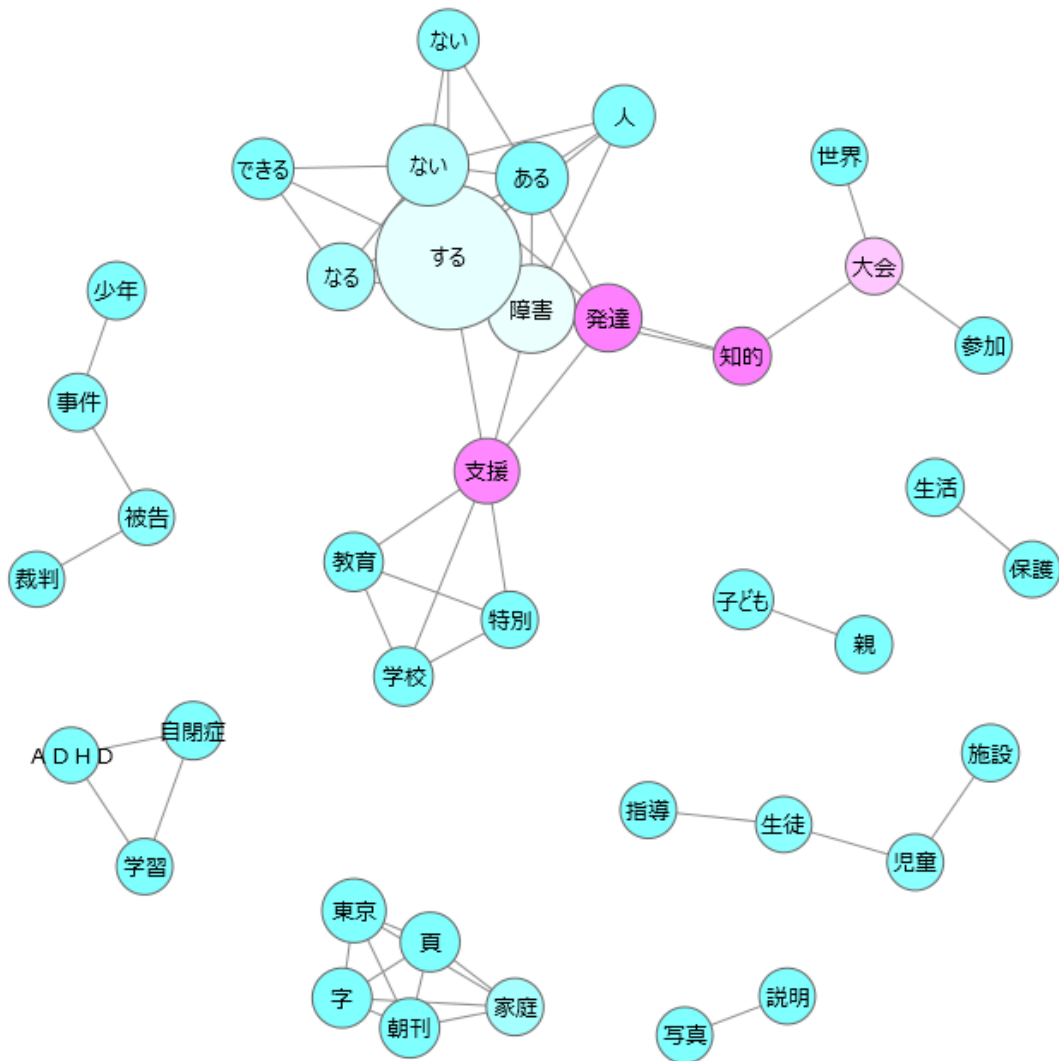corpus.

Figure 3.5 Network graph of *the Nihon Keizai Shimbun* corpus

Here is summary of the network graph for *the Nihon Keizai Shimbun*
corpus. The minimum word occurrence for this graph is 45. First, する acts with
eigenvector centrality: this is different from the three earlier graphs. Second, in
the bottom of this graph, a large group of words concerned with crime, and the
group is connected with a word 医師 (*ishi*, "medical doctor"). This result
connotes that the medicine is concerned accordingly with judicial knowledge and
facts. This seems to be a rebuttal against Teruyama (2014)'s argument about

newspaper discourse, stating that the knowledge on disability is spread with judicial and educational specialization, rather than by medical specialization. Rather, it is possible that medical and judicial specialization has connection.

Finally, the figure 3.6 shows the network graph for *the Sankei Shimbun* corpus.

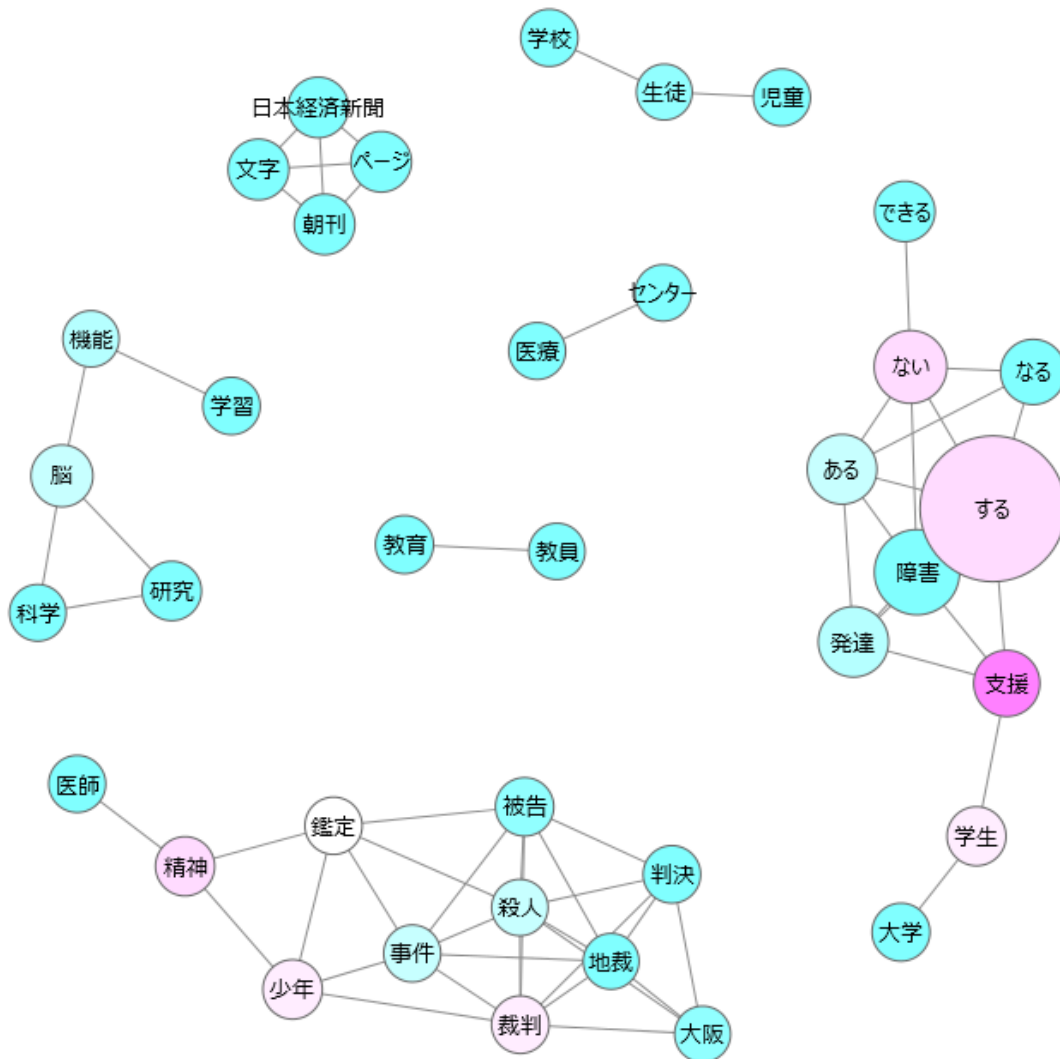**Figure 3.6 Network graph of *the Sankei Shimbun* corpus**
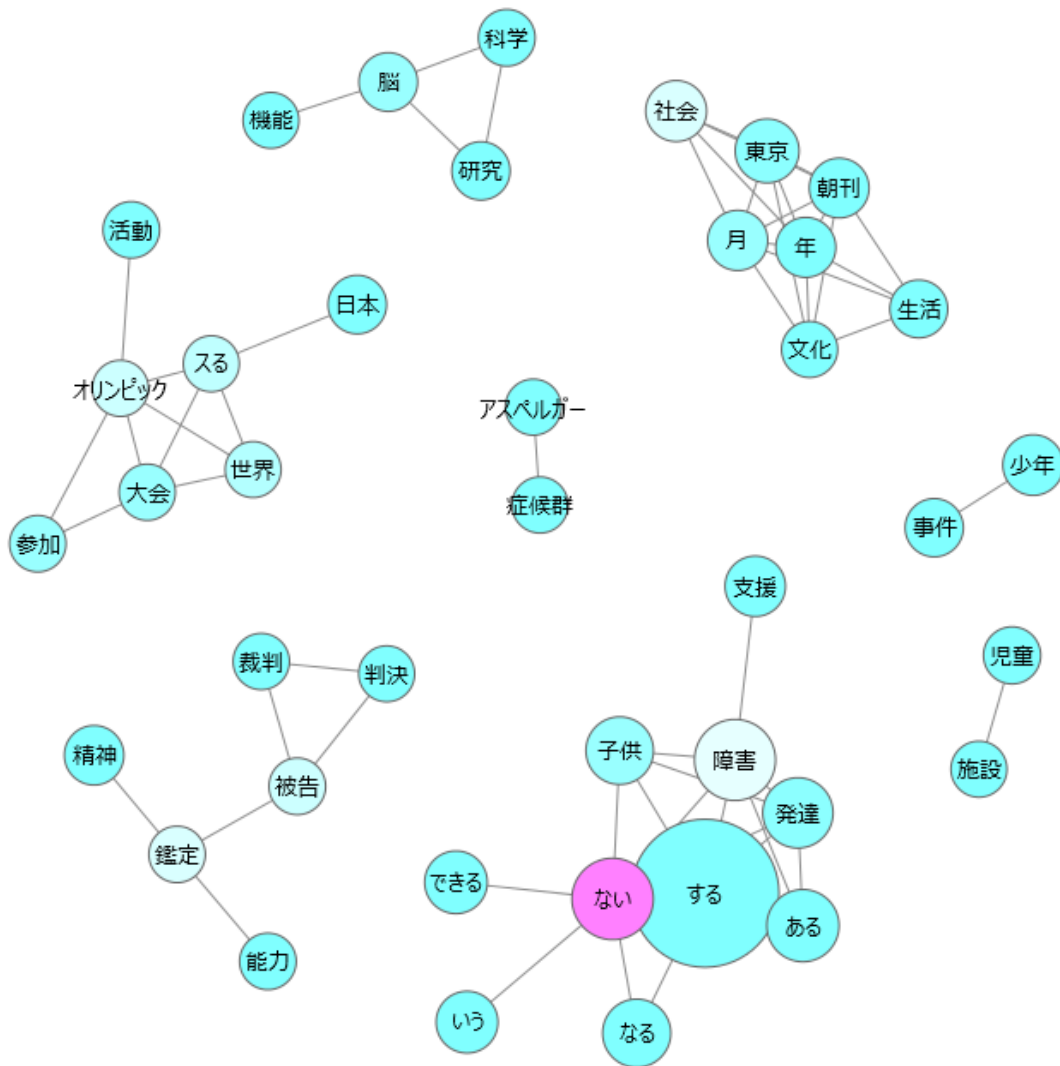
Here is summary of the network graph for *the Sankei Shimbun* corpus. The minimum word occurrence for this graph is 125. First, the negation ない (*nai,* "not") plays its strong role as eigenvector centrality. *The Nihon Keizai Shimbun* and *the Sankei Shimbun* are only two newspapers with ない with the eigenvector centrality function. As the author considers the ない as a strong

linguistic instrument for construction of public discourse, this point will be discussed in the later sections. Second, in the upper-left of the graph, a group associated with Special Olympics, such as オリンピック (*Orinpikku*, "Olympic"), 大会 (similarly with *the Mainichi Shimbun*), 参加 (*sanka*, "participation"), and 世界 (*sekai*, "world"). The author has found with his close reading, noticing that *the Sankei Shimbun* frequently features the Special Olympics as the milestone for participation to sports events by people with developmental disabilities, although the Special Olympics organization uses the term 知的発達障害 (*chiteki hattatsu shogai*, "intellectually developmental disabilities") (Special Olympics Nippon Foundation, 2016).

In this subsection, five newspaper corpora have indicated different characteristics with word networks. The next subsection attempts to clarify the relation of smaller topics in newspaper corpora regarding *Hattatsu Shogai*.

3.2.1.2 Interim discussion

This subsection discusses he above findings from the network analysis. The author initially tried to analyze the ideological difference between newspapers regarding word usage, but the author would not argue that the difference is clearly reflected in word usage. Here is the reason why: no political word , such as 自立 (*jiritsu*, "independence") and 日本 (*Nihon*, "Japan") was used connectively in any word network graph among above five graphs. For instance, the word 日本 would have mentioned accordingly to 社会 (*shakai*, "society"), the political discourse would be suggested. Only two usages of 日本 are, however, the connection with オリンピック regarding the Special Olympics, and the proper noun 日本経済新聞 [*Nihon Keizai Shimbun*] in the *Nihon Keizai Shimbun* corpus.

Rather, here the author discusses two generic/common features of word co-occurrence across the five network graphs. First, the author focuses on the usage of 支援. Four corpora, *the Asahi Shimbun*, *the Yomiuri Shimbun*, *the Mainichi Shimbun*, and *the Nihon Keizai Shimbun*, contain this word acting with eigenvector centrality function. Simply speaking, the words with pink color have heavier connections with surrounding words than other words do. Thus, we must notice that the concept of 支援 plays strong role in public discourse and policy regarding *Hattatsu Shogai*. Moreover, we must discus that what 支援 means for persons with *Hattatsu Shogai*. Second, although this might contradict with the first paragraph of this subsection, different newspaper has opposite word for eigenvector centrality function. The author has already mentioned that the negation ない has eigenvector centrality function in some corpora, consisting of *the Nihon Keizai Shimbun* and *the Sankei Shimbun*. In contrast, in *the Asahi Shimbun*, the affirmation ある (*aru*, "exist") has the eigenvector centrality

function. It might be possible to discuss relation between difference of political position and usage of negation/affirmation.

In this subsection, we have observed characteristics of co-occurrence of word usage and its relation with subtopics regarding *Hattatsu Shogai*. The next section will discuss the word-subtopic relation with different perspective with the cluster analysis.

3.2.2 Hierarchical cluster analysis

In this section, we will investigate the relation of subtopics to *Hattatsu Shogai* concept with different perspective from the last section. The hierarchical cluster analysis will gather words with strong relationships into clusters. The author attempts to classify the relation of subtopics. In Japan, Fujii, Kosugi, and Lee (2005: 92-93) demonstrates application for hierarchical cluster analysis for analyzing issues in social welfare, psychology, and nursing, with the example of questionnaire response by employees in a nursing home. For topics in these fields, including disabilities, text mining is still early growing field. Here we will review the result of findings in newspaper corpora.

3.2.2.1 Findings

In this subsection, we will review the findings beginning from the big picture to detail. The figure 3.7 is a cluster dendrogram for comparing whole text corpora of five papers. This text is processed with R statistical package (R Core Team, 2015) and RMeCab morphological analysis tool (Ishida, 2016). Ward method is applied for the hierarchical clustering.
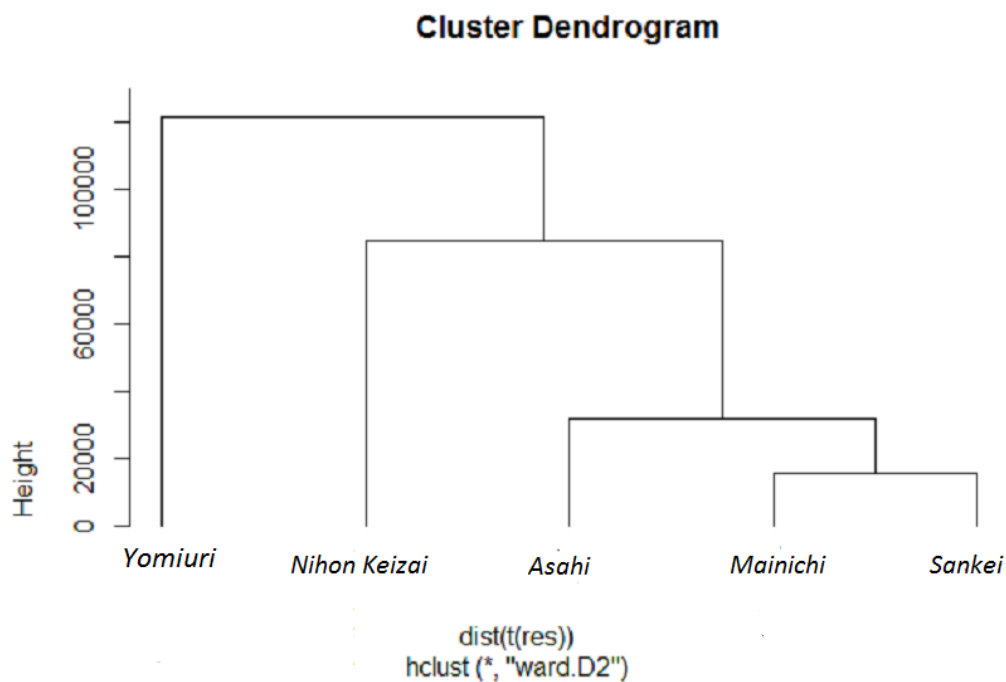
Figure 3.7 Cluster dendrogram for whole newspaper corpora

This dendrogram attempts to investigate the similarly or difference between each corpus per distance. On the right, *the Mainichi Shimbun* and *The Sankei Shimbun* show similarity. *The Asahi Shimbun* is related, and for the further distance, *the Nihon Keizai Shimbun* is located. With the longer distance, *The Yomiuri Shimbun* is located. This figure denotes: in the big picture, difference between text is clear, and the ideological difference recognized by popular discourse is not proper in the topic per *Hattatsu Shogai*. A former journalist Kaoru Matsubayashi (2016:84) argues that Japanese newspapers seems to be classified (although this is Matsubayashi's opinion), from the liberal from the conservative, as *the Mainichi Shimbun*, *the Asahi Shimbun*, *the Nihon Keizai Shimbun*, *the Yomiuri Shimbun*, and *the Sankei Shimbun*. However, limited with this topic for *Hattatsu Shogai*, Matsubayashi's insight does not match. Although we cannot compare the corpora simply, as the difference of time for each database, it is possible that the topics in special education and social welfare do not strongly matter for the ideological position of newspaper journalism.

Therefore, we might consider that it is not strong meaningful for us to compare newspaper corpora accordingly to ideological difference and to investigate possibility of ideological effect to the word usage. Similarly, to our interim discussion on network analysis in the last section, let us review the characteristics in cluster dendrograms across the papers.

Below are cluster dendrograms for five newspaper corpora. This analysis

employs KH Coder, same as the network analysis did. The figures 3.8, 3.9, 3.10, 3.11, and 3.12 are the dendrograms, also with Ward method. The left are words with larger occurrence, with bars indicating the number of occurrence.

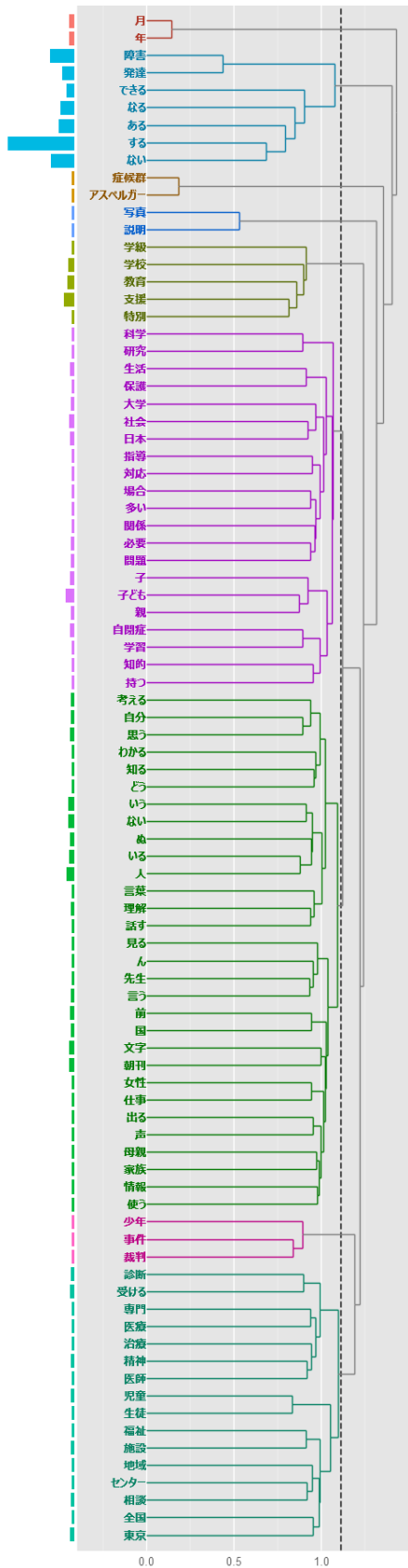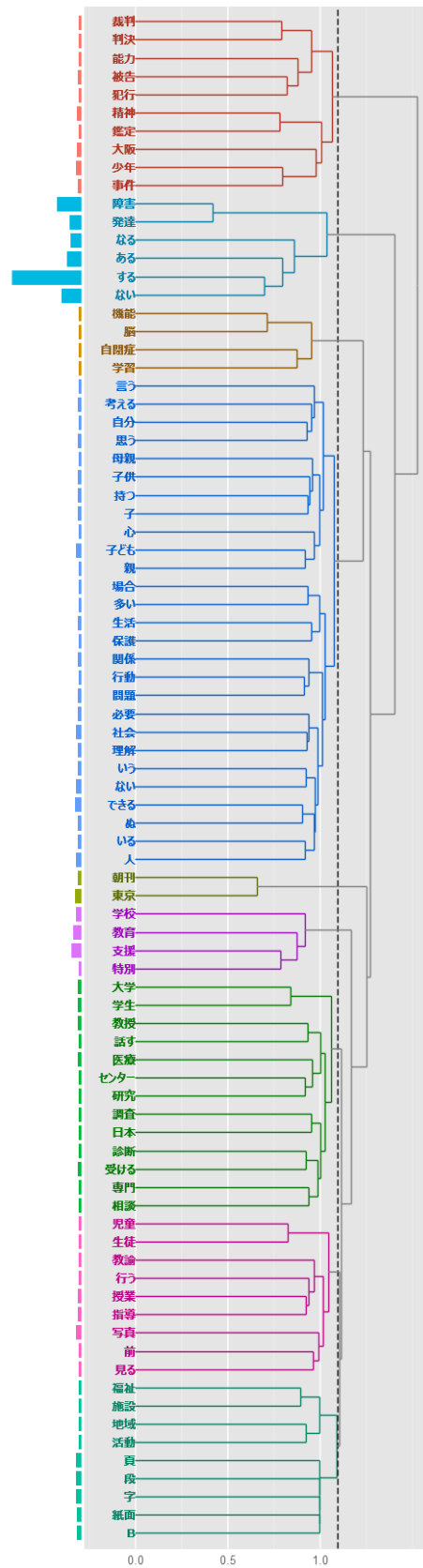**Figure 3.8**
The Asahi Shimbun dendrogram
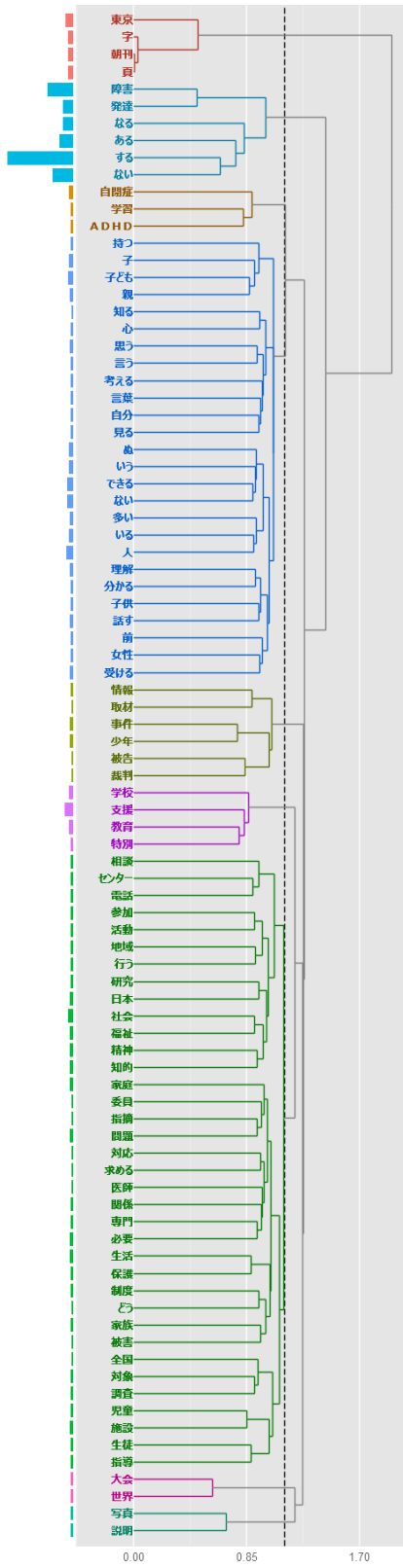

Figure 3.9
The Yomiuri Shimbun dendrogram

Figure 3.10
The Mainichi Shimbun dendrogram
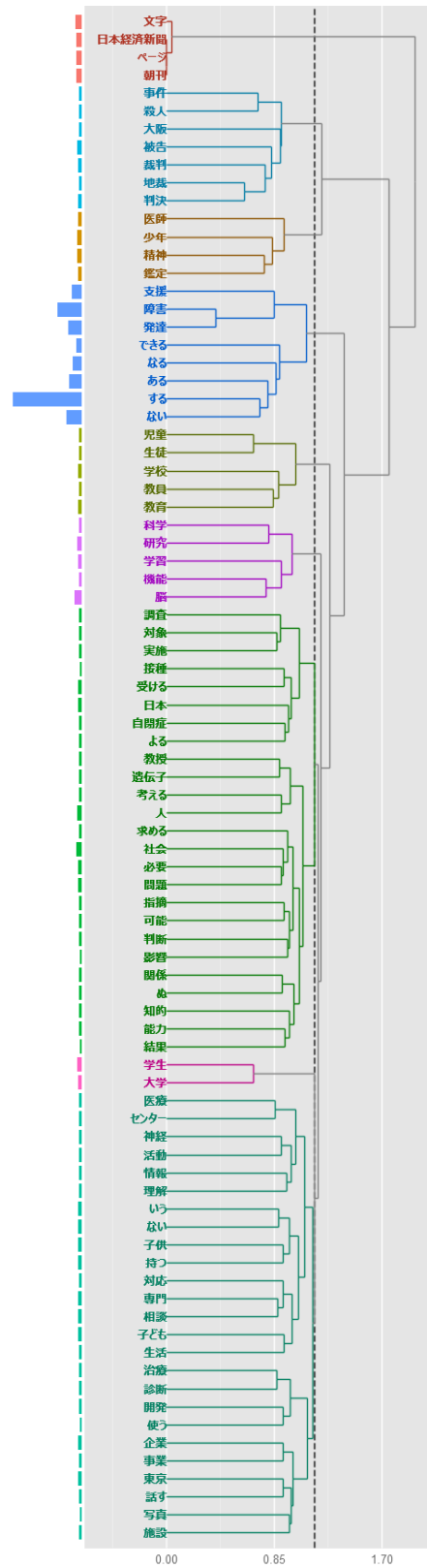
Figure 3.11
The Nihon Keizai Shimbun
dendrogram
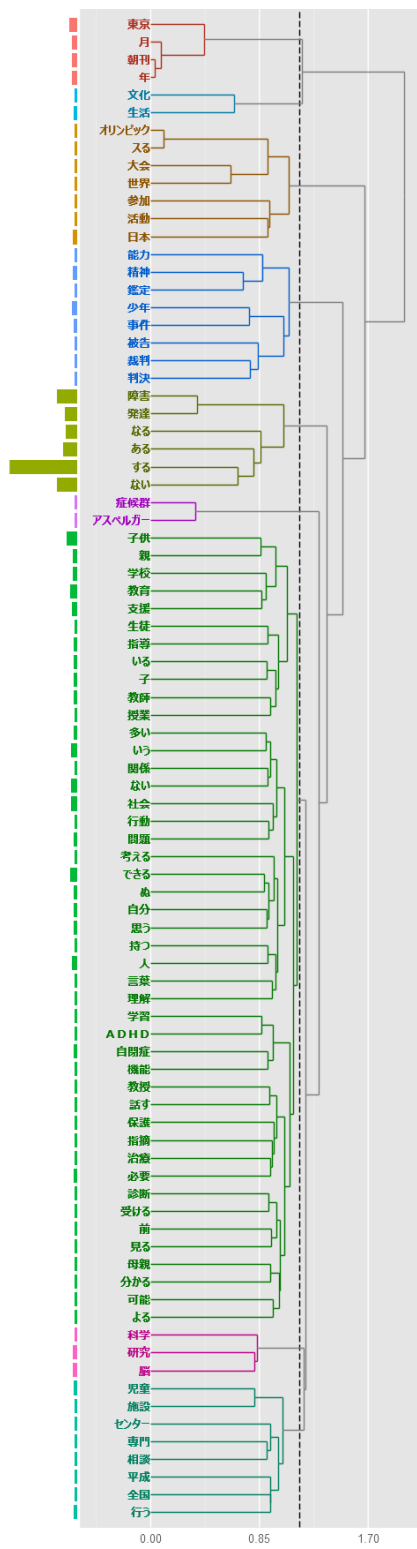
Figure 3.12
The Sankei Shimbun dendrogram

3.2.2.2 Interim discussion

We may notice one critical point from the above five dendrograms: despite the fact that a lot of clusters ae observed, only one cluster with projecting occurrence, which contains words such as 障害 (shōgai, "disability"), 発達 (*hattatsu*, "development"), する (*suru*, "do"), and ない (nai, "not"), and so on, are observed in all the dendrograms above.

What does this finding mean? One possibility is that the *Hattatsu Shogai* has related with negation strongly, as already argued. The further question is: "what is negated?" next, we shall investigate the quality of negation and mention for other subtopics noticed in above quantitative analysis, with CDA framework.

3.3 Qualitative analysis

This chapter discusses how newspaper has constructed the word 発達 (*hattatsu*, "development"). Moreover, we will try investigating whether the definition of *Hattatsu Shogai* has been transformed across the time or not. As the author noted in the section 2.2, we investigate this issue with CDA framework.

3.3.1 Method

Although the application of text mining techniques to CDA research is still rare, good combination of CDA theory and text mining technics has gradually gaining presence in discourse studies in Japan. Tominari (2014) applies mixed approach analysis for newspaper corpora with KH Coder.

With respect to the above situation, the author extracted keyword in context (KWIC) concordance with search query 発達 (*hattatsu*, "development") in each newspaper corpus. This output is saved as Comma Separated Value (CSV) files. The author carefully read those findings and classified the meaning and context of 発達. The figure 3.13 is the sample of KWIC concordance output that is taken from *the Asahi Shimbun* corpus (opened with Microsoft Excel). Reading these files from five corpora, we will investigate the meaning of the word 発達 in context.

L	C	R
とのかかわりの大切さなどを説いているのが特徴で、非行や様々な	発達	障害に陥らないために「親として最低限必要な知識」を、イラスト入りで列挙
、家庭教育をめぐる状況変化を説いた総論と、（1）乳幼児期の成長	発達	の理解（2）親の留意点・配慮事項（3）地域社会と子供の
理解（2）親の留意点・配慮事項（3）地域社会と子供の成長	発達	、の三章からなり、全体が四十一項目のトピックスで構成される。執筆は
「達成されない場合、将来、人間形成上に重大な影響を及ぼしそうな	発達	上の課題」を中心にピックアップし、注意・警告書風に重要事項を列挙
がんとともに、現代医学が克服できない最大の難病である神経疾患、精神病、	発達	障害などの原因究明と治療法の開発に取り組むため、厚生省は来年度に国立精神
舞踊病などの神経疾患（3）筋ジストロフィーなどの筋疾患（4）知恵遅れなど	発達	障害の4分野。いずれも脳・神経系の難病で、一部、薬などで
の精神疾患、てんかんなどの神経疾患、筋ジストロフィーなどの筋疾患、知恵遅れなどの	発達	障害に関する先端的な診療、研究などを行う。そのため病院部門と研究部門を
歳以下の幼児に著しい効果を示した。小児自閉症の根本的な性質である	発達	障害に対し効果がある、と研究班はみている。（↓）　東京会場は20日
を置き、とくに、事故発生時に妊娠初期の段階だった子どもの白血病や精神	発達	障害などの発病率を詳しく追跡する。（↓）　また、出席者の1人で西独
重要だと語った。（↓）1988年05月13日（↓）朝刊（↓）1家（↓）019（↓）00137文字（↓）「精神	発達	障害児の指導」講演会（情報クリップ）　（↓）　15日午後1時－4
室（地下鉄丸ノ内線後楽園下車）で。都立北養護学校の北村晋一教諭が、精神	発達	に障害をもつ子供の発見法や指導法について話す。定員150人。費用1000
の発見法や指導法について話す。定員150人。費用1000円。申し込みは精神	発達	障害指導教育協会（03－949－9817）へ。（↓）1988年06月14日（↓）朝刊
座長は「あしかがおもちゃ図書館」の阿由葉久子さん。助言者は精神	発達	障害指導者教育協会の湯汲英史さんと、自分も障害をもつ「狛江
（↓）　　　　　（↓）　教育　　420　　8，0　◆教育、	発達	障害、幼教、第1・2社会科、国文、現代社会、地域・歴史文化、
（国）、中（英）、教養（人間科学－生涯教育計画論コース、	発達	人間学コース、文化研究－日本・アジア言語文化コース、欧米言語文化コース、情報
小露路治療教育研究所の石井聖氏。参加費1000円。問い合わせは、精神	発達	障害指導教育協会（03－903－3800）。（↓）1989年01月18日（↓）朝刊（↓）討論
、第2常置委員会（入試制度）の委員長を務める。専攻は、精神	発達	障害学。67歳。（↓）
次に社会問題化している受験産業の問題がある。受験産業が日本ほど	発達	した国はない。外国から見れば異常に見える。高校も偏差値体制の
－641－9281（↓）　　　　　　（↓）　教育　　420　4，9◆教育、	発達	障害、幼教、第1・第2社科、国（↓）　　　　　文
英）、教養（人間科学－生涯教（↓）　　　　育計画論コース、	発達	人間学コース、文化研究－日本・アジア（↓）　　　　言語文化コース、欧米
を雇用する工場の代表者藤屋真子さん。会場費1000円。申し込みは、精神	発達	障害指導教育協会（03－903－3800）。（↓）1989年10月27日（↓）朝刊（↓）1
勤さん、筑波大の池田由紀江さん。会場費1000円。申し込みは、社団法人精神	発達	障害指導教育協会（03－903－3800）。（↓）1990年07月27日（↓）朝刊（↓）5

Figure 3.13 Sample of KWIC concordances from *the Asahi Shimbun* corpus

3.3.2 Findings

The table 3.3 indicates the KWIC tokens for 発達 in five corpora. The further analysis in qualitative approach follows the table.

Table 3.3 KWIC tokens for *hattatsu* in newspaper corpora

Newspaper name	Tokens
The Asahi Shimbun	1,401
The Yomiuri Shimbun	2,673
The Mainichi Shimbun	989
The Nihon Keizai Shimbun	361
The Sankei Shimbun	936

Reading each concordance line, the author found five major subtopics: medicine, education, policy, crime, and labor. Dividing into time periods, until 1990, 1991-2004, and after 2004 (a.k.a. after the passage of *Hattatsu shōgaisha shienhō*. The following subsections will excerpt sentences from subtopics and the interim discussion for usage of 発達 accordingly to KWIC analysis will follow.

3.3.2.1 Until 1990

Only three corpora, *the Asahi Shimbun*, *the Yomiuri Shimbun*, and *the nihon Keizai Shimbun*, contain articles published until 1990. In this period, newspapers treated *Hattatsu Shogai* almost solely as a medical concept. In other words, the discourse was developed by medical specialization. For instance, here is the excerpt from *the Nihon Keizai Shimbun*, a newspaper with its strong influence to business community[vii]:

47

(1)
ブームの火付け役になったのは、田辺製薬が開発した「ホパテ」（商
品名）。五十二年に小児の精神発達障害の治療薬として発売したが、
五十六年に脳卒中などに伴う情緒・言語障害といった痴呆症状にも
適用が広がったことから、急速に売れ行きが伸びた。

The boom was triggered by "HOPATE" (product name) developed by
Tanabe Seiyaku Co. Ltd. The company started to sell this in 1977 as a
remedy for *seishin hattatsu shōgai,* but as the extent of approval of this
medication of this medicine was spread toward symptoms of dementia,
such as disorder of emotion and language associated with stroke, the sales
rapidly increased.
(*The Nihon Keizai Shimbun*, 22 September 1986)

This article focuses on medication for dementia. The feature connotes that
medication for *Hattatsu Shogai* was already popular in medical discourse,
although, as I noted earlier, this word used to have different concept from current
usage.

On the other hand, regarding education, *the Asahi Shimbun* reports that the
Ministry of Education (currently emerged into MEXT) published the how-to book
for parenting in 1985. The article provides the background of this publication with
following excerpt:

(2)
現代家庭における父親の役割の強調や、働く母親が増える中で男女
の役割変化を意識した子育て、地域とのかかわりの大切さなどを説
いているのが特徴で、非行や様々な発達障害に陥らないために「親
として最低限必要な知識」を、イラスト入りで列挙している。

The features of this booklet are strong focus on the role of father in
temporary family, parenting recognizing the change of men-women roles
with respect to increasing number of mothers with jobs, and significance
of engagement in community; in order to avoid misconduct and various
hattatsu shōgai, the booklet lists "minimum knowledge or parents" with
pictures.
(*The Asahi Shimbun*, 31 January 1985)

This excerpt connotes that *Hattatsu Shogai* was recognized as a matter of
parenting, additionally as a matter of medicine. In 1980's, the number of articles
containing *Hattatsu Shogai* was small, and rather, intellectual disabilities, mental

retardation, and autism were mentioned in news discourse. From 1990's, the subtopics regarding *Hattatsu Shogai* became more diverse.

3.3.2.2 From 1991 to 2004

In 1990's to 2004, *Hattatsu Shogai* was still a matter mainly about education and medicine. Events regarding subtopics, however, had become more diverse.

Regarding medicine, the following medical knowledge was provided by the news reporter of *the Mainichi Shimbun*. This is an excerpt from an article features a personal story of a father of a woman with autism, who was died in her institution:

(3)
自閉症は脳障害が原因で異常を起こす発達障害といわれるが、「心の病」と誤解され苦しむ家族は多い。

Although it is said that autism is a *hattatsu shogai* that causes abnormality due to brain disorders, a lot of family are suffered by misunderstood as "disease of the mind".
(*The Mainichi Shimbun*, 10 November 1992)

The discourse arguing that *Hattatsu Shogai* was the matter of brain function was not new. This discourse is applied in education subtopics as well, as the following excerpt from *the Sankei Shimbun*:

(4)
障害児の言語脳である左脳は、発達障害があります。ところが、障害があるとわかったときから、言葉を教える働きかけをすると、まだできあがっていない脳には普通児に負けない言語回路が開けていきます。

The left brain is the language brain of children with disabilities as *hattatsu shogai*. However, since learning that the child has the disability, if you teach language to the children, the language circuit will be open competitive to that of normal child in the undeveloped brain.
(*The Sankei Shimbun*, 10 September 1992)

One warning that this article is contribution from an outside specialist and he is known as a radical professional of childhood education. The author of this dissertation would neither agree nor disagree with his opinion. This excerpt is

cited in order to show the example of connection of education and medical discourse. After the 2004, the year when Japanese parliament passed the special law for *Hattatsu Shogai*, more diverse discourse has become visible in the print media texts.

3.3.2.3 After 2004

Policy, crime, and labor. These three subtopics have been more significant in news discourse regarding *Hattatsu Shogai* in 21st. Century. In addition, as we have seen in the figure 5.1, the quantity of article has largely increased in this time period. Here we will mainly review the two of the three subtopics (policy and labor) one by one. The discourse on crime will be discussed in the Chapter 6.

First, let us review the discourse on policy. *Hattatsu shōgaisha shienhō* will be discussed in the Chapter 6 devoted to case studies; rather, we will review one another event here. In 2012, one debate regarding prefectural policy happened in Osaka; Osaka City Assembly members affiliated with a regional political party 大阪維新の会 (*Osaka ishin no kai*) released a bill proposal for encouragement of childhood education to the press. However, this proposal was strongly criticized by the parents' group of persons with autism and many citizens. *The Yomiuri Shimbun* reports the event as follows:

(5)
同条例案は児童虐待が後を絶たない中で、家庭教育支援や親に保護者としての自覚を促すことなどが目的で、市議団が１日、記者団に公表。その中で児童虐待を発達障害と関連づけて、「愛情不足が症状を誘発する大きな要因」と指摘し、「わが国の伝統的子育てで予防・防止できる」と記述していた。これに対し、「大阪自閉症協会」（大阪市）などが問題視。この日、同市議団など５会派に条例案の提案見送りと、専門家を交えた勉強会開催を求める要望書を提出した。

This proposal aims to encourage parents to have awareness as guardians; the city assembly members' group released the proposal to journalist groups in May 1st, regarding that the child abuses continue to happen. In this bill, they related child abuse to *hattatsu shogai*, and mention that "lack of love is the big factor of symptom", and described that "Japanese traditional parenting may prevent it". Against this action, "Autism Society in Osaka" and others questioned. They submitted the petition to five assembly members' groups, including *Osaka ishin no kai*, requesting the abandonment of the bill proposal and study conference inviting experts.
(*The Yomiuri Shimbun*, 8 May 2012)

After this event, *Osaka ishin no kai* abandoned this proposal. This event suggests to us that the political discourse still affects policy, using medical and educational knowledge with their own sense.

Second, let us review the discourse on labor. *Hattatsu Shogai* used to be matter of sheltered employment, such as working in sheltered workshops with governmental support and low wage. However, so far, with respect to government's encouragement for people with disabilities to work in "normal labor forces", vocational support has increasingly become big feature. Here is excerpt from the *Nihon Keizaai Shimbun*, featuring a commercial company for providing vocational rehabilitation for people with *Hattatsu Shoga*i.

(6)
経営感覚を備えた社会事業の起業家を育成・輩出しようとする動きも広がり、新たなベンチャービジネスの領域として存在感が高まりそうだ。
　自閉症など発達障害者の就労を支援する【会社α】。秋葉原にある訓練施設では１０人前後の若者がそれぞれパソコンに向き合う。

The movement for educating and fostering entrepreneurs with a sense of management in social business is spreading, so it will have higher presence as a new field of venture business.
[A company α] supporting the work by persons with *hattatsu shogai* such as autism. In the training center in Akihabara, each of approximately 10 young persons is faced with personal computer individually.

[N.B. The name of company is rendered anonymous by the author of this dissertation]
(*The Nihon Keizaai Shimbun*, 19 May 2014)

Persons with *Hattatsu Shogai* are gradually but increasingly recognized as a possible labor force, rather than as a target of pity. However, there is room for careful discussion regarding the economic, philosophical, psychological, and medical feasibility of this sort of movement.

3.3.3 Interim discussion

In this chapter, we have reviewed examples of discourse in newspaper texts in five subtopics (including a subtopic we will observe later): medicine, education, policy, crime, and labor. Here let us discuss how these subtopics are related across the time.

In 1980s, *Hattatsu Shogai* used to be mainly the matter of education and

medicine. The problem regarding brain function was claimed, but the strong thought about *cure* by education also existed. From 1990s to 2004, strong belief of education was still playing a strong role, and even newspapers applied medical knowledge to promote individual model discourse. From the years around 2004, *Hattatsu Shogai* has gained its recognition as a policy issue, a factor of crime, and a labor issue. As the law recognized *Hattatsu Shogai* as a concept in social service, the media also has played a role as a sociopolitical issue—in other words, we may argue that social model or sociopolitical model can intervene in policy regarding *Hattatsu Shogai* more.

Speaking further, the author argues that the news discourse has made a strong transformation of language use from 1980s to 2010s. In 1980s, *Hattatsu Shogai* was regarded as a medial concept and as an individual/family problem; as Japanese people respect the role of family more than people in some other countries, the family role should not be dismissed from our discussion. Going through the development of medicine, the *Hattatsu Shogai* has been regarded as a more difficult matter to treat medically. Rather, journalism has emphasized roles of education and policy gradually. Finally, so far, this disability category is steadily regarded as economical matter, possibly because of the labor shortage triggered by aging society in Japan.

In the last section and this one, we tried discussing the big picture of language use in context of *Hattatsu Shogai* in newspapers. In the next chapter, we will look at more narrowly focused issues with case studies.

4. Case studies

In this chapter, we will consider more specific features of word usage and public discourse. That way we attempt to gain concrete knowledge about the function of words and its role in public discourse. The first analysis will feature negation, and the second analysis will feature the concept of independence and labor.

4.1 Negation[viii]

This subsection discusses the function of negation in newspaper pieces containing the word *Hattatsu Shogai*. The earlier sections have mentioned a critical role of negation ない with network analysis, so here the author will investigate this device in depth, with both qualitative and quantitative approaches. With his close reading, the author has noticed that one of the common micro-level linguistic devise for describing the characteristics of *Hattatsu Shogai* is the use of negation. Here the author employs the analysis of articles in *the Asahi Shimbun* and *the Mainichi Shimbun*. The study focuses on the negation ない (*nai*, "not") as an adjective and adverb. Through this analysis

4.1.1 Methods
4.1.1.1 Qualitative analysis
Below is the analytical procedure for this element:

(1) In the list of headings of collected articles, the author classified extracted article about three major topics in number: crime, SSE, and *Hattatsu shōgaisha shienhō*, and then the sub-corpora were crafted for relevant article text.

(2) in each sub-corpus, the author crafted discourses (Fairclough, 2003) by categories of personal (medical) model and the social model, and then excerpted the relevant sections in the article file. For extraction of the Discourses, the author incorporated a framework that Najima (2015) and Takagi (2015) applied for media texts about the Fukushima Dai-ichi Nuclear Plant accident in 2011.

(3) The author employed analysis of grammar and meaning in the file that was created in (2).

The Table 4.1 indicates the number of articles that are subjected to the analysis.

Table 4.1 Number of articles in sub-corpora

	The Asahi Shimbun	*The Mainichi Shimbun*
Crime	54	53
SSE	10	11
Hattatsu Shogaisha Shienho	5	6

4.1.1.2 Quantitative analysis

In quantitative analysis, the author investigated the policy action that is representative to the enactment of the *Hattatsu shōgaisha shienhō*, for the question on whether or not affect the frequency of negation in the discourse. In the analysis, the impact of developmental disabilities support legislation in the year 2004 was examined.

Shibuya (2011) conducted the assessment of college students and vocational school student for Developmental Coordination Disorder (DCD), and analyzed by method of text mining by focusing on the word 不器用 (*bukiyo*, "clumsy"), that of the difference by the recognition and students by experts. In other words, even now, the language is not a tool that always works effectively in order to convey the perception regarding disability. Moreover, there is room for discussion and debate about the negative representation.

Text dataset for *the Asahi Shimbun* and *the Mainichi Shimbun* were divided by the date of 31 December 2004. Then, the earlier one was categorized as before 2004, and the letter one, articles published 1 January 2005 and later were classified as after 2005. The two on the horizontal axis, were named as time division. Then, with the vertical axis together with the adjective ない the auxiliary verb ない was named as the usage of ない. For this two-axis was crafted as a cross-tabulation table.

In the quantitative analysis, the author applied a statistical package R (R Core Team, 2015) for chi-square test by cross-tabulation table. As for the Japanese morphological analysis, the author applied RMeCab package (Ishida, 2015).

4.1.2 Results
4.1.2.1 Qualitative analysis

Depictions of the individual model (the medical model) scatter in each sub-corpus. In the context of education, as shown in the excerpt (1), expressions to cast doubt on the ability of children with *Hattatsu Shogai* frequently appear:

(1)
一見すると、何の問題も<u>ない</u>やり取りのようだが、３人は普段の教室ではうまくコミュニケーションがとれ<u>ず</u>、友達もなかなかできな

<u>い</u>。

At first glance, it seems that their exchange has no problem, but these three children cannot communicate well in everyday classroom, and cannot become friends.
(*The Mainichi Shimbun*, 4 July 2009)
[Underlined by the author of this dissertation, as well as the latter news text excerpts.]

In the above example, negation such as ず (*zu*, "not") or ない (*nai*, "not") . As the usage will be discussed later, here the author shall discuss its meaning. Communication and socializing are issues of interaction, so it should not be a problem attributed sorely to diagnostic or organic disorder of the individual. Description of this representation is seen to have attributed the responsibility of not satisfied of interpersonal relations that should be established on the ability of children with disabilities by the mutual responsibility of children with disabilities and the others.

On the other hand, the social model is also represented with ない. In particular, in some cases, co-occurrence of the individual model and the social model and ない is used for both models, such as the following excerpt (2):

(2)
読み書きや計算など、特定の分野だけ学ぶことが<u>困難</u>な学習障害。じっとしていられ<u>ず</u>衝動的に動いてしまう注意欠陥多動性障害。コミュニケーションや対人関係がうまくいか<u>ない</u>自閉症やアスペルガー症候群。
【中略】
早いうちに一人ひとりに合った援助があれば、能力を十分に伸ばし、社会人として自立できる場合が少なく<u>ない</u>。国会で密度の濃い議論を重ね、できるだけ早い時期の実施をめざしてもらいたい。

Only certain areas, such as reading, writing and calculation, are difficult to learn; it is learning disabilities. Cannot be still and impulsively moving; it is attention deficit hyperactivity disorder. Communication and interpersonal relationship do not work well; it is autism or Asperger's syndrome.
[…]
If there is any early assistance that matches the individual, in not a few cases, he/she can fully extend the ability, and can achieve independence as a member of society. We want the National Assembly to pile up dense

discussion and aim the earliest possible timing of implementation.
(*The Asahi Shimbun*, 18 August 2004)

The above article is an editorial that was published foreseeing the enactment of *Hattatsu shōgaisha shienhō*. A developmental disorder was described with negative expression on the basis of the individual models in the beginning. And, the writer of this article seeks society to strengthen the support system with the medical-model based assumption.

Here the analysis goes further for investigating negation. This negation has two formats: a lexical negative format and a grammatical negative format (Tsukahara, 1990; Kudo, 2000). The former is to have a sense of denial in the vocabulary with a prefix such as 不 (*bu*, "not"), 無 (*mu*, "none"). The latter is to use the syntax of the negative form (Ibid.). This paper focuses on the grammatical negative format; the lexical negative format will be investigated in future study.

Although the negation of the Japanese has been made in many cases in previous studies, the research from the perspective of discourse dealing with in this paper, can be cited Maynard (2004). Maynard's analysis of the negative representation in novels (2004) stated that:

『は』を伴った否定文もそれ以外の否定文も、コントラストするコンテキストで用いられ、その基本的な機能は、否定する立場を明確に意図的に表現するという言語主体の行為を実現することである。

Both negative sentences with a postpositional particle ha and other negative sentences are used in context for contrasting, and its fundamental function is to realize the act of an utterer's position to make a denial.
(Maynard, 2004: 158)

On the other hand, Ayuzawa (1990) conducted her analysis of the trend of negative representation in the newspaper from the standpoint of Japanese education, pointing out what has been a widely used euphemism in the editorials, as discussed in the following manner.

日本人は率直にものを言わない、表現しないといわれるがそのひとつの原因がこのような婉曲表現を好んで使うことと関係があるのではないかと思われる。

It is said that Japanese people do not state or express his/her opinion

honestly; one of the causes is likely to be related with the fact that they prefer using such euphemism.
(Ayuzawa, 1990: 24)

Maynard (2004) and Ayuzawa (1990) seem to conflict each other. Depending on the sentence of the genre and subject, however, we need to consider that the trend of rhetorical usage of negative representation may vary.

Here, the author studied editorials excerpted from the corpora of *the Asahi Shimbun* and *the Mainichi Shimbun*, which contain the ない negation. In the editorial, a newspaper company has the effect of showing the company's opinion with its language expression; it seems to be a matter the writer's cognition of the news object.

The number of editorials regarding *Hattatsu Shogai* is 9 in *the Asahi Shimbun*, and it is 21 in *the Mainichi Shimbun*. The topics include labor, child welfare, political situation, and a murder.

The article, which was published in the most early in the corpus of the two papers is an editorial that was published in *the Asahi Shimbun*, 「施設がだんだん遠くなる」 [*Shisetsu ga dandan tōku naru*: "Institutions gradually go far away" published on July 27, 1990. Regarding the standard of mentally retarded rehabilitation institutions of the Tokyo Metropolitan District Government, the government has placed the institutions far away from Tokyo, such as the Tohoku region in the Northern Japan This editorial criticizes the situation. The concept of developmental disabilities in this time was different from those used by the current Japanese government, so it is suspected that it included intellectual disabilities. Still, the author of this dissertation thinks that considering the formation of the discourse surrounding the disorder has some suggestion, so cited below.

(3)
東京は活力と魅力のある都会だ。しかし、自分で自分を守る力の<u>な</u><u>い</u>人々には、だんだん冷たい都会になっていく。

Tokyo is a city with vitality and charm. However, for people with no power to protect themselves on their own, the city is increasingly becoming a cold metropolis.
(*The Asahi Shimbun*, 27 July 1990,)

In this editorial, people with disabilities are depicted as those who do not have the ability. The possession of "to protect themselves" is because it has been denied by the word "no". Additionally, the background of a situation that forced

them to live in Tokyo facilities far away from their land, are discussed in the following manner.

> (4)
> もちろん、利用する人自身が希望して生まれ育った土地を離れるのなら、何の問題も<u>ない</u>。秋田も山形もいい土地だ。しかし、現実には、ご本人は、十分に説明されることも<u>なく</u>、意思も確かめられ<u>ず</u>、知ら<u>ない</u>うちに入所が決められることが多い。「本人のためによかれと思って」「話しても分から<u>ない</u>から」「話せばいやだと言うに決まっているから」と関係者はいう。

> Of course, if they would leave the land where they were born and have lived with their own intention, no problem. Both Akita and Yamagata are good place. However the persons were not provided full explanation, the intention is neither in the reality, confirmed, and often admitted to institutions unknowingly. "Because I thought it was good for the client", "Because they do not understand while I talk" "They would deny if I would explain", the officials say.
> (*The Asahi Shimbun*, 27 July 1990)

In the first sentence in the above excerpt, it has denied an existence of the problem in the assumption that "if they would leave the land where they were born and have lived with their own intention". However, this is so to speak a representation, such as the subjunctive in English, in that time of reality have pointed out the absence of explanation by ない. Then, a following statement appears in the end of this editorial.

> (5)
> だれにも優しい都会をつくる――それが、これからの都市経営の理念では<u>ない</u>か。

> Creating a friendly city for everyone—Is not it a philosophy of urban management in the future.
> (*The Asahi Shimbun*, 27 July 1990)

In other words, it is strongly possible that the importance for the society not to isolate, but to include, people with disabilities, already exists in the news discourse at the time of the year 1990. However, enactment of *Hattatsu shōgaisha shienhō* in 2004 and the enactment of *Convention on the Rights of Persons with Disabilities* (CRPD) by the United Nations (UN) (United Nations, 2006)

encouraged the *nai* usage change; on the one hand to be used in order to express the difficulties on the ability of people with developmental disabilities, on the other hand to strengthen direction of the importance of the inclusion in the Japanese society.

The following is a quote from an editorial published in *the Asahi Shimbun* on 18 August 2004, which was published foreseeing the enactment of the *Hattatsu shōgaisha shienhō*. To analyze from different viewpoint, the excerpt (6), the repetition of the former of (2), is mentioned again:

(6)
読み書きや計算など、特定の分野だけ学ぶことが<u>困難</u>な学習障害。じっとしていられ<u>ず</u>衝動的に動いてしまう注意欠陥多動性障害。コミュニケーションや対人関係がうまくいか<u>ない</u>自閉症やアスペルガー症候群。

Only certain areas, such as reading, writing and calculation, are difficult to learn; it is learning disabilities. Cannot be still and impulsively moving; it is attention deficit hyperactivity disorder. Communication and interpersonal relationship do not work well; it is autism or Asperger's syndrome.
(*The Asahi Shimbun*, 18 August 2004)

That is, the difficulty of "communication and interpersonal relationship" is indicated by ない. On the other hand, as shown in the following example from the latter part of excerpt (7), in second half of the excerpt (2), ない is used for the desired observational.

(7)
早いうちに一人ひとりに合った援助があれば、能力を十分に伸ばし、社会人として自立できる場合が少なく<u>ない</u>。国会で密度の濃い議論を重ね、できるだけ早い時期の実施をめざしてもらいたい。

If there is any early assistance that matches the individual, in not a few cases, he/she can fully extend the ability, and can achieve independence as a member of society. We want the National Assembly to pile up dense discussion and aim the earliest possible timing of implementation.
(*The Asahi Shimbun*, 18 August 2004)

Although the previously mentioned Ayuzawa (1990) noted the trend of euphemism in the newspaper article, the trend did not disappear in the 21st

century. This editorial does not state "should be able to be independent as a member of society", but states "in not a few cases, he/she can fully extend the ability, and can achieve independence as a member of society". While avoiding the political and economic strong claim, the editorial projects a hopeful future triggered by the law and policy, such as *Hattatsu shōgaisha shienhō*.

This trend is remarkable in the example of the editorial of *the Mainichi Shimbun* on December 18, 2009, which evaluates the fact that persons with disabilities have been invited in the Cabinet Office (CO)'s special committee for disability policy reform. Referring to the claims of the parties who while the UN CRPD, the editorial stated in the following manner:

> (8)
> 福祉を施される対象ではな<u>なく</u>、自ら政策決定する主体になるべきだ
> というのだ。
> (『毎日新聞』2009 年 12 月 18 日社説)

> Not being an object of the welfare, but saying they should be subjects of their own policy decisions.
> (*The Mainichi Shimbun*, 18 December 2009)

In the above quote, claims of the peoples of disabilities might have been interpreted as follows by reporters. That is, those who recognize their current state as "object of the welfare" are to be challenged for the change. It is found that news reporters are using ない in order to express it. Then, when entering the year 2010 decade, and the stalemate of economic growth in Japan, based on things such as the crisis of public finances, a tendency that ない is used is further seen to refer to social participation, such as with people with disabilities. It is seen in the following examples, which are served after you referred to persons with mental disabilities of independence support of efforts in the town of Hokkaido (9). This editorial is also mentioned in developmental disorders, reference therefore considered to have a constant suggestion:

> (9)
> 成長に貢献でき<u>ない</u>から排除するのではな<u>なく</u>、どんな人も自分の存
> 在を肯定でき、同じ時代に生きる仲間を信頼できる。

> Not to exclude because they cannot contribute to the growth, any kind of person can be positive for the presence of their own, trusted companion to live in the same era.
> (*The Mainichi Shimbun*, 5 January 2010)

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As seen in the above example, ない has been used in the denial of the ability of people with disabilities. However, it can be argued that ない is gradually becoming to be applied for criticizing of the problems in society; rather, it is an expression which have been employed in order to claim the promotion of the independence of people with disabilities.

However, one thing should be noted in this analysis: the degree of change in the usage of ない is differentiated depending on subject, although one of the features of Japanese language is the fact that a sentence may be recognized even if it does not have a subject. However, when we consider the example sentences above, the subjects, including hidden ones, for excerpts (1), (2), (3), (6), (7), and (8), is persons with peoples with disabilities including *Hattatsu Shogai*. During this time, over the disability usage of ない is, in as far as to see these example sentences, along with the timing of the transition is also said to have come to include not only to denial of ability, but also to encouragement for independence.

On the other hand, the subject of example (5) might be "philosophy of urban management", and the subject of the example (9) might be "society". Example (5) contains ない in the question form. In addition, example (9) includes a phrase "not to exclude", which is regarded also as a double negative to the word "exclude". Although these two example sentences argue the social environment, it can be said that the problem posed to the exclusive society for both people with disabilities. Such a problem is raised, in recent years has been become popular, but it was not significantly new.

In this manner, consider the effect of negative representation taking into account the difference in subject, two points are suggested. The first point is, although people with disabilities themselves had long been denied the ability, they are now boosted their independence by language representation. The second point, the fact that the social system did not subsume such people, has been pointed out for a long time.

Up to this point, with the axis of the individual (medical) model and the social model, the author cited the case of the handling of the concept of *Hattatsu Shogai*. In addition, the author investigated the action of the negation. Especially in the discourses of social model, prospects for enlightenment and independence was seen many expressions in the background.

On the other hand, if the focus on the negative representation, the slightly different aspect is observed. When gazing at the context of ない, the intention of the press to seek the society of change can be seen there. However, as the current Japanese society has the way to the original premise that the universal and impossible to be reformed, a tendency to discuss persons with *Hattatsu Shogai* as the subject of training for adaptation was also shown in *the Asahi Shimbun* and *the Mainichi Shimbun*.

4.1.2.2 Quantitative analysis

Here the author refers to the results of the quantitative analysis. First, it was examined for *The Asahi Shimbun* (Table 4.2). As a result, χ2 value = 1.0443 (df = 1), the significance probability p =.3068 (significance level p <.01), and the significant association was not found in the "usage of *nai* usage" and "time division". Thus, the null hypothesis "There is no correlation between 'usage of *nai*' and 'time division'" was approved. It was shown that that is not the enactment of the law is a strong influence on the frequency of *nai*.

Table 4.2 Frequency of *nai* in *the Asahi Shimbun*

	Time division	
Usage of *nai*	After 2005	Before 2004
Nai (adjective)	490	189
Nai (adverb)	2006	698
χ 2 =1.0443 (df =1) *p*=.3068		

In addition, correlation analysis was conducted. Pearson's product-moment correlation coefficient was 0.889. As it was one of more than .8, strong correlation to the content in the text data in since the previous 2004 and 2005 was observed. In other words, the effect of the enactment of the developmental disability support law in 2004 had on usage of negative expression nai can be said to be weak.

The same examination was conducted for *the Mainichi Shimbun* (Table 4.3). Thus, χ2 value = .7198 (df = 1), the significance probability p =. 3962 (significance level p <.01), and the significant association was not found in the "usage of *nai*" and "time division". Thus, the null hypothesis "There is no correlation between 'usage of *nai*' and 'time division'" was approved. It was shown that that is not the enactment of the law is a strong influence on the frequency of *nai*.

Table 4.3 Frequency of *nai* in *the Mainichi Shimbun*

	Time division	
Usage of *nai*	After 2005	Before 2004
Nai (adjective)	392	120
Nai (adverb)	1455	495
$\chi 2 =0.7198$ (df =1) *p*=.3962		

In addition, the correlation analysis was carried out based on the above results. Pearson's product-moment correlation coefficient was 0.991. As it was one of more than .9, strong correlation to the content in the text data in since the previous 2004 and 2005 was observed. In other words, the impact on usage of negative expression ない in the enactment *Hattatsu shōgaisha shienhō* can be weak in *The Mainichi Shimbun*, as well as *The Asahi Shimbun*.

Through the above analysis, at least for grammatical negative format and for *Hattatsu Shogaisha Shienho*, its enactment does not have a significant impact on the frequency of use of nai. This tendency was almost similar in *the Asahi Shimbun* and *the Mainichi Shimbun*. This is said to have noted some problems in quantitative analysis. One point, is that a event is not necessarily greatly influenced the way used the words. Another point is to consider the usage and the context of a word is that it is necessary qualitative analysis. However, by using a quantitative approach more diverse, it may be possible to verify the correlation of made how the meaning and the co-occurrence relation of the word. This point is a research challenge in the future.

4.1.3 Interim discussion

In each the above subsections, from both the qualitative and quantitative aspects, the author analyzed the representation in the newspaper article of the concept of *Hattatsu Shogai*. In particular, applying models of disability an analytical framework, the author further examined the correlation between the usage of negation ない. Thus, that the concept of developmental failure has captured the interactive as medical and social phenomenon was suggested. Additionally, by a variety of usage of negation ない, in recent years is not the developmental disorder is necessarily repellent, it became clear that the *Hattatsu Shogai* has not only been regarded as subject of hedging, but also as a subject of independence. The issues are summarized in the following three points:

First, *Hattatsu Shogai* in Japan is that it is also seen as a personal problem (medical model) as well as a social problem (social model). In UK and U.S., the rebound was born to be a failure as the center of the disability had been caught only as a personal problem. Thus, social model and nontraditional models

have been crafted. However, for *Hattatsu Shogai* in Japan, the resolution of relevant issues has been explored from both in terms of personal problem and social problem.

Second, even though the number of articles that contain *Hattatsu Shogai* increased rapidly in the early 21st Century, the negation did not have in quantity the impact of legal policy. In other words, although a law is established, it is not necessarily to have a significant impact on the formation of the image for the subject of the law.

Third, with respect to the two newspapers and this research material, the usage of ない is not only the denial of the ability of people with disabilities, is that now stepping further to recommendations for political and economic systems. Factors to be considered as this background, typified by the CRPD enacted, major change of mindset for the human rights of people with disabilities are considered. In the past, even if seen not only in Japan but also internationally, people with disabilities were denied the isolation of the target. However, in countries that are referred to as the welfare state is aggressive inclusion of people with disabilities came to be made. And, journalism is responsible for introduce them to Japanese society, is considered to have influenced the thinking newspaper reporter who to create a language representation. It is considered that can also width in the usage of ない by that.

As described above, this subsection demonstrated that the change of legal policy and social environment, has led to some degree of qualitative change in which is one of the language expression ない.

4.2 Definition, independence, and laborix
4.2.1 Scope

In this subsection, the author discusses the discourse on definition, independence and labor. As noted in the earlier subsection, independence is one of the key terms of discourse on *Hattatsu Shogai*. This analysis focuses on the question: "Who wants the independence and working of persons with *Hattatsu Shogai*?" This analysis focuses on qualitative perspective.

As well as other acts regarding disability policy, a symbolic act is *Hattatsu Shogaisha Shienho*. In 2016, this act was revised. The points include strengthening and employment assistance to the amendments and long-term individual care planning for children with *Hattatsu Shogai*. For persons with *Hattatsu shogai*, work is a big challenge. In addition, as the section 1.1 noted, the idea of social barrier was added in the definition of *Hattatsu Shogaisha* (persons with *Hattatsu Shogai*). In other words, developmental disabilities support law is said to have strengthened the color to support the independence of developmental disabilities.

It is no doubt that the labor has a big meaning for human being. However, but being unable to work is not a problem only for persons with disabilities. With investigating, further, next question is that, who is focusing on the labor particularly by persons with disabilities? To answer that question, the author has conducted his analysis of the print media. Newspaper is still influential for the labor market, and one of the reasons is that business owners have been influenced by newspaper discourse by the daily reading of newspapers. For example, to the persons with *Hattatsu Shogai*, the media can form thought about the independence and work of developmental disabilities, how to act on language.

4.2.2 Method

This report is intended which has been subjected to linguistic qualitative analysis in print media. Selecting two editorials from the dataset, CDA framework is applied. For this analysis, the author applied Discourse-Historical Approach (DHA) (Reisigl and Wodak, 2016). This approach is intended to extract the historical elements of the discourse in the newspaper article, there is characterized in that the analysis in association with the text of more than one form. In addition, the following three dimensions will be the big axis: "(1) having identified the specific *content* or *topic(s)* of a specific discourse, (2) *discursive strategies* are investigated. Then (3), *linguistic means* (as types) and context-dependent *linguistic realizations* (as tokens) are examined." (Reisigl and Wodak, 2016:32, italics as original) The author thinks that this approach is appropriate to elucidate the work values and self-reliance view behind the language. This should be noted, however, ideally the DHA should be employed with large size corpora with long term analysis. Thus, the analysis in this section is located as a pilot study for further research.

4.2.3 Findings

Below are two editorials analyzed here:

- 「発達障害者　法制定で理解と支援を広げたい」["We want to spread understanding and support in the development with Disabilities Act enacted"]

(*The Yomiuri Shimbun*, 15 June, 2004)

- 「支援の法づくりを早く　発達障害」[""Early developmental disorders the law making of support."]

(*The Asahi Shimbun*, 18 August 2004)

The reason for selecting these editorials, these problems in the people the

two editorial is with *Hattatsu Shogai*, including employment, or comprehensively stated what has been a challenge, because it emphasizes the significance of *Hattatsu shōgaisha shienhō*.

Here the author applies 15 topoi (Wodak, 2001; detailed explanation and Japanese application appears in Najima, 2015) as the framework of analysis (Table 6.4).

Table 4.4 Ruth Wodak's list of *topoi*

1. Usefulness, advantage	9. Finances
2. Uselessness, disadvantage	10. Reality
3. Definition, Name-interpretation	11. Numbers
4. Danger and threat	12. Law and right
5. Humanitarianism	13. History
6. Justice	14. Culture
7. Responsibility	15. Abuse
8. Burdening, weighting	

(Wodak, 2001:74)

This time, the location of the editorial of the two newspapers mentioned earlier, 15 topoi corresponding to the rapporteur. Among them, the author shall especially cite a few things about independence and employment.

First, to quote the part that contains the *topos* of "Definitions, Name-interpretation" for *Hattatsu Shogai* from the editorials. The following is a quote from *the Asahi Shimbun*.

(10)
読み書きや計算など、特定の分野だけ学ぶことが困難な学習障害。じっとしていられず衝動的に動いてしまう注意欠陥多動性障害。コミュニケーションや対人関係がうまくいかない自閉症やアスペルガー症候群。

Only certain areas, such as reading, writing and calculation, are difficult to learn; it is learning disabilities. Cannot be still and impulsively moving; it is attention deficit hyperactivity disorder. Communication and interpersonal relationship do not work well; it is autism or Asperger's syndrome.
(*The Asahi Shimbun*, 18 August 2004)

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Following is a similar quote from *The Yomiuri Shimbun*:

(11)
「発達障害者とは、脳の何らかの先天的要因で、自閉症や、読み書き、計算などの習得が困難な学習障害、衝動的に行動しがちな注意欠陥・多動性障害などを抱えた人たちだ。」

Persons with *Hattatsu Shogai* refers, persons with disabilities by some innate factors of the brain, autism and, reading and writing, are difficult to learning disabilities to learn, such as calculation, troubled and impulsive act that tend to attention deficit hyperactivity disorder.
(*The Yomiuri Shimbun*, 15 June 2004)

As both editorials suggest, a *topos* of "Definition, Name-interpretation" is observed. The proposition is "such a person that has a feature should be named as this". In other words, it is why others at the beginning of the editorial is first carried out. Here the author shall emphasize that, in either of the citations, as in the underlined part of the above excerpts, "difficult", ない, is that negative expressions such as ない is used. This dissertation already discussed that negation has been used both for showing negative capability and empowerment; it has been used to represent contradictory concepts at first glance. In the quote mentioned here, it will be used in the meaning of the former.

Then, it shows you a quote about independence and labor. First of all, it is from *the Asahi Shimbun*.

(12)
早いうちに一人ひとりに合った援助があれば、能力を十分に伸ばし、社会人として自立できる場合が少なくない。国会で密度の濃い議論を重ね、できるだけ早い時期の実施をめざしてもらいたい。

If there is any early assistance that matches the individual, in not a few cases, he/she can fully extend the ability, and can achieve independence as a member of society. We want the National Assembly to pile up dense discussion and aim the earliest possible timing of implementation.
(*The Asahi Shimbun*, 18 August 2004)

The first sentence has been granted *topos* of "Humanitarianism". In other words, considering the humanitarian values and beliefs, it will be expected to argue that "if there are public support persons with *Hattatsu Shogai* can social contribution". The second sentence, *topos* of "Responsibility" has been granted.

In other words, it is that "the Parliament should be active in support of developmental disabilities", the government is responsible for the support, newspaper is considered.

On the other hand, an editorial of *The Yomiuri Shimbun*, has been concluded with the following one sentence.

(13)
発達障害に悩む人たちの自立を応援する手だてを、乳幼児から成人に至るまで着実に広げていきたい。

Want to steadily spread up the way to support the independence of people who suffer from developmental disorders, to the adults from the children. (*The Yomiuri Shimbun*, 15 June 2004)

Topos here and there is a "Humanitarianism", the proposition will be "society as a whole should support the independence of developmental disabilities."

4.2.3 Interim discussion

Up to this point, it is others of people with certain features are the reason with disorder of brain function, named *Hattatsu Shogai*, to the people is the subject of public support by the *topoi* of humanitarianism and responsibility.

Then, was cited as the question of the beginning, the answer to the question: "who is focusing on the labor particularly by persons with disabilities?" is, or will become a thing vague thing, such as "society". This is, in fact, difficulty of analyzing the editorial. One of the features of the Japanese, as noticed above, a sentence is satisfied even in it does not contain is a subject. Also in the analysis of this editorial, it is that it cannot affirm or who is of focusing on independence and employment. Perhaps disability pension and welfare, or the central government of the want to reduce the social security resources to be used for, such as medical expenses, or the employment support of a business community that you are trying to achieve a new business goal— it does not know the only newspaper article. Rather, that it is a dangerous thing to try to argue only up the newspaper articles.

To conclude, the only analysis of this time mentioned newspaper, mechanism of discourse structure to promote the independence of *Hattatsu Shogai* cannot be fully understood, will be called. Ideally, the CDA should be multimodal, including various texts and even fieldwork. This is the challenge in the author's research in the future.

5. Discussion

Here we shall discuss the extracted research question for this study as responding one by one.

(1)   How does the Japanese society and politics affect the policy about *Hattatsu Shogai* throughout the newspaper?

The research on topoi clarified that independence and responsibility might have strong roles for extracting discourse. In particular, we should consider the globalization; the Western idea of capitalism and liberalism spread via the wide range of forms of media, not limited by the mass media, but also by the social media.

(2)   What kind of ideology is behind the specific language expression about *Hattatsu Shogai*?

With respect to the answer to (1), definition of *Hattatsu Shogai* has negation. The point for further investigation is the reason of this occurrence. More detailed quantitative study will reveal this question more accurately.

(3)   What kind of topics regarding *Hattatsu Shogai* are frequently mentioned in print media?

Both large corpora analysis and case studies show, policy, education, medicine, crime, and labor are dominant topics, as well as labor.

(4)   How has the frequency of mention of the subject of *Hattatsu Shogai* changed?

Law and policy has a big effect; therefore, the enactment and preparation for *Hattatsu shōgaisha shienhō* has increased the frequency.

(5)   How has the definition of *Hattatsu Shogai* changed over recent decades?

As the investigation on previous literature shows, intellectual disability and physical impairment are included in *Hattatsu Shogai*. However, 2004 as the decisive moment has made the Hattatsu Shogai concept narrower. The point is: "who made it?" Investigation on policy document would possibly reveal the point.

(6)   What are the agents of changes?

       One possibility is linguistic devise, such as particular expression. The other is function of macro-level media discourse. As the time was limited for this study, macro-level discourse was not deeply investigated. However, this is definitely a point to be investigated near future.

6. Policy recommendations

The author has repeatedly argued that this research on media discourse has a lot of opportunities in future. For instance, professional education, such as special education, journalism, and social work. Particularly, in U.S. and UK, social work researches increasingly discuss the media use for social workers and social work education curriculum. To realize it, the author thinks that there are two challenges. The one is how to reach the non-academic audience. Increasing claim in academic discourse is that the academic research does not make impact if the research does not reach to the professionals. The scholars, including the author of this dissertation, should establish the way of outreach.

The other is genre. The author of this dissertation recognizes the variety of genre of text. As soon as the analytical framework is determined, the other texts, such as textbooks of professionals, or narratives can be analyzed. That way the scholarship can reach to the professional easily.

Besides, one concern should be mentioned. Cameron (1995) argues by coning the term *Verbal Hygiene*, from the term mental hygiene, careless and overwhelming intervention on natural language use might lead to ethical problem. Cameron concerns the killing of diversity of language use by surveilling English by occupational education, and so on (i.e. teaching "Standard English"). The scholarships in language should be careful about this issue, in order to intervene to language with good consensus of language users. Bottom-up process, rather than top-down process should be ideal.

7. Conclusion

In this dissertation we have discussed the use of language and its effect on public discourse regarding Autism and *Hattatsu Shogai*. The studies demonstrated the framework to analyze the language use in the print media for marginalizing persons with disability Hattatsu *Shogai*. Moreover, this dissertation proposed the possible application of theoretical models of disability to linguistic analysis.

In short, the main findings are as follows:

(1) In terms of Autism and *Hattatsu Shogai*, the newspaper texts mutually apply two models of disability: the medical model and the social model. Both two models represent characteristics, policies, and practices toward *Hattatsu Shogai*.

(2) The use of negation, for instance *nai* ("not"), has two opposing functions:

    a.   The medical model function of criticizing people's lack of ability, such as in interpersonal communication

    b.   The social model function of criticizing the social barrier toward persons with disabilities, such as the society's lack of understanding of the cultural aspect of persons with Autism and *Hattatsu Shogai*

Thus, the above findings propose the possibility of the application of theoretical models of disability for linguistic analysis.

Additionally, the quantitative analyses demonstrated that the political difference of the five major newspapers in Japan does not have a strong affect on texts on Autism and *Hattatsu Shogai* at the macro level. It could be thought that a newspaper that was regarded as 'right-wing' has specifically different word usage from another newspaper that was regarded as 'left-wing'. This research, however, indicated no such difference.

The analyses interestingly found that the news texts reflect the encouragement or inclusion of persons with disabilities after the process of marginalization. The marginalization, however, is not solely a negative action. Ironically, the marginalization has developed new technology, therapy, and policy. Here the author tried to show it by the usage of *nai* ("not"); this is a negative term, with respect to the basics of Japanese semantics. Pragmatically, however, the subject can differentiate the paradigm of meaning of this single word: from the denial to advocacy or empowerment.

Also, this research revealed that social phenomena differentiate

language use for depicting *Hattatsu Shogai*. This can be a macro-level discourse issue, such as an international or national policy change. Moreover, we can hypothesize that the conflict of models of disabilities in the texts occurs as the consequence of global transition of disability policy, represented by the United Nation's Convention of Rights of the Persons with Disabilities. Economic policy should also be considered in future. Besides, the effect of globalization, such as the import of European idea of welfare state and independent living in U.S. and UK, for thoughts on disability in Japan may be significant. Advances in medicine and special education should be considered as other critical factors. There is great room for further empirical study in the future.

Due to limitation of the author's ability, some parts of this investigation of news discourse seems shallow in some senses. Also, it lacks comparative aspects: *Hattatsu Shogai* versus other disabilities, and so on. These problems should be viewed as issues to be investigated soon, as well as the general implications of social theory for linguistic analysis, as the author mentioned above.

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Endnote

[i] Translation by the author of this dissertation.

[ii] Translation by the author of this dissertation.

[iii] Translation provided by Ministry of Justice (MOJ), Japan. The database for Japanese Law Translation can be accessed from http://www.japaneselawtranslation.go.jp/?re=02

[iv] The MEXT survey in 2015 excluded children in three prefectures, Miyagi, Iwate, and Fukushima, where severely devastated by The 2011 off the Pacific coast of Tohoku Earthquake (The Great East-Japan Earthquake), from the national data pool.

[v] Translation by the author of this dissertation.

[vi] This section is adopted from Miyazaki (2015a). Revisions, corrections, and addition of the table 2.2 are made for this dissertation.

[vii] All the Japanese-English translation of newspaper excerpt are processed by the author of this dissertation.

[viii] This subsection is crafted with modification and translation of Miyazaki (2015b, 2016a, and 2016b).

[ix] This subsection is composed by translation of Miyazaki (2016c).