

What future for minorities:

speculative design and media arts in East Asia

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Abstract

Speculative design as a means to sketch future scenarios, raise extreme questions, and provoke alternative thinking has been used in such leading digital art institutions as the MIT Media Lab (U.S.) and V2_Lab (NL) since 2010. In 2014, the Foundation for Art and Creative Technology (FACT) in Liverpool (UK) curated an exhibition titled “New Death” that explored “how technology has created new ways of living, fashioning new identities, forms of intimacy and desire” based on the question “have the Sci-Fi visions we once imagined of the future since become a reality?” In the same year, Ars Electronica in Austria launched the Future Innovators Summit as part of their annual event to provide an opportunity to discuss creative questions for the future. The spread of speculative design seems to be an important trend worthy of investigation.

As speculative design remains largely in the West, some have argued that most speculative art practices lack an awareness of cultural differences and homogenize the future visions of people from the West and non-West. Based on such a criticism, this thesis will take East Asia as an example in exploring how speculative design functions in different cultural contexts, as well as seek to identify the specific issues that speculative design artworks engage with in East Asia. The unique approach speculative design practice in East Asia has taken to the discussion of preferable future will also be presented. In the following chapters, art practices from Taiwan, China, and Japan will be analyzed in the categories of medical science, human and non-human animals relationships, and familial relationships. Overall, this thesis aims to provide an outline of both the development of speculative design and its likely future impact on art-making and design practices in East Asia.

Keywords: speculative design, media arts, medical science, human and non-human, family, East Asia

Declaration of Authorship

I, Ping-Yi Chen,
born the 9th of August, 1986, in Taipei, Taiwan
hereby declare,

1. that I have written my Master Thesis myself, have not used other sources than the ones stated and moreover have not used any illegal tools or unfair means,
2. that I have not publicized my Master Thesis in my domestic or any foreign country in any form to this date and/or have not used it as an exam paper.
3. that, in case my Master Thesis concerns my employer or any other external cooperation partner, I have fully informed them about title, form and content of the Master Thesis and have his/her permission to include the data and information in my written work.

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Foreword

It is my personal preference to value an artwork's content and social meaning more than its format and aesthetics. Socially engaged creations are something that I have always been interested in, no matter whether in the form of advertisements (my previous field of study), or in the form of media arts. When I studied advertising, I was fascinated with the process of ad production, which required doing research, finding a problem, focusing on an argument, and creatively using materials (graphic design and video...etc.) to communicate precisely to audiences. When I first encountered speculative design practices in Taiwan, I was amazed by their social topics, critical attitudes, and fictional means, as I had rarely seen such elements in Taiwanese media arts before. Suddenly I felt a sense of familiarity and motivation to discover more about these kinds of artworks, thus I regard this thesis as the result of ten long years of persistent learning on my interest of socially engaged creations. I did not have much experience in academic research and writing before. Therefore, I thank my supervisor Elizabeth for putting such effort into giving me feedback and advice on my thesis. I feel I have learned a lot during this period. A special thanks to Kuang-Yi Ku. If I had not met you and your art project during my internship at FACT Liverpool, I would not have encountered speculative design. The conversations I have had with you mean a lot to me. Thanks to Pei-Ying Lin for giving me tips and references on speculative design and academic research. Thanks to my MediaAC friends, especially Fred and Jasper, whose company, chats and time spent together made the process of battling with my thesis not so lonely. Finally, I appreciate the two years' experience I have had studying in Europe. I will definitely miss this time.

Chapter 1 Introduction

There has recently been a trend toward adopting speculative design in media arts creation. Leading media art institutions such as the MIT Media Lab (U.S.) and V2_Lab (NL), have used speculative design as a method in their research projects since 2010.¹ For instance, the Foundation for Art and Creative Technology (FACT) in Liverpool (UK) curated an exhibition titled “New Death” in 2014 that explored “how technology has created new ways of living, fashioning new identities, forms of intimacy and desire” based on the question “have the Sci Fi visions we once imagined of the future since become a reality?” (Foundation for Art and Creative Technology [FACT], 2014). In the same year, Ars Electronica in Austria launched the Future Innovators Summit to discuss creative questions for the future, such as “who are the people who can scout new ways for the future?” (Ars Electronica 2014, 2014); “the creation of future possibilities through open discussion with various people in an open environment” (Future Catalysts, 2015); and “what are the characteristics of future humanity, future education and future commons?” (Ars Electronica 2016, 2016).

Although speculative design often relates to critical design, design fiction, discursive design, interrogative design, or ludic design, it is possible to use a similar method without knowing that it is actually a form of speculative design. The term speculative design was coined by researchers Anthony Dunne and Fiona Raby of the Computer Related Design Research Studio at the Royal College of Art (RCA; Dunne and Raby, 2013, p. 34) in the 1990s. Dunne and Raby were inspired by Fredric Jameson’s observation that “It is now easier for us to imagine the end of world than an alternative to capitalism” (Dunne and Raby, 2013, p. 2). They abstracted this political observation to the field of design to illustrate an all together different kind of design process – design as a process that is not about problem solving, but rather a method or tool to speculate how things *could* be. This approach to design provokes alternative thinking, as well as “thrives on imagination and aims to open up new perspectives on what are sometimes called ‘wicked problems,’ to create spaces for discussion and debate about alternative ways of being, and to inspire and encourage

¹ The Design Fiction group in the MIT Media Lab was started after hiring Hiromi Ozaki (sputniko!) as director in 2013. Design fiction is one of the methods that V2_Lab uses. Most of the projects presented in the V2_Lab archive were made after 2010.

people's imaginations to flow freely" (Dunne and Raby, 2013, p. 2).

Speculative design usually deals with "the future" because the future provides an unrealized space to debate the kinds of future designs, products, and artefacts that people want and do not want. For Dunne and Raby (2013), "futures are not a destination or something to be strived for but a medium to aid imaginative thought—to speculate with" (p. 3). Set in a future scenario, speculative design often starts with a "what-if" question to provoke conversation about our wildest dreams, such as what if men could menstruate? What if a human could give birth to a dolphin? Speculative design is also critical; unlike most design processes that are about problem solving, speculative design aims to challenge what has been taken for granted, and raise debates about issues that need greater awareness. Dunne and Raby (2013) claim that, "critical design uses speculative design proposals to challenge narrow assumptions, preconceptions, and givens about the role products play in everyday life" (p. 34). A good critical design usually offers an alternative to how things are, "It is the gap between reality as we know it and the different idea of reality referred to in the critical design proposal that creates the space for discussion" (p. 35). Emerging technologies constitute the main area that speculative design addresses. As we are now overwhelmed with multiple kinds of rapidly developing technologies, such as live streaming, online social networking, virtual reality, artificial intelligence, cloning, etc., the enormous influence of these technologies and practices on our everyday lives provokes thought and inquiry for society, interpersonal relationships, ethics, and laws, etc.

The concept of speculative design has become a guideline in the RCA Design Interactions program. Since then, this concept has been evolved by students and other researchers to include wider genres. This trend not only exists in the design field, but also in the field of media art. According to Dunne and Raby (2013), speculative design addresses issues caused by emerging technologies. They write that "it might borrow heavily from art's method and approaches, however [it is] not as shocking and extreme as art. Speculative design needs to be closer to the everyday but be demanding and challenging" (p. 43). Such a description of the features of speculative design explains why it has also begun to be used in media arts practices.

Speculative design has mainly been studied and discussed in the West, and Dunne and Raby's research has been criticized by Tonkinwise (2014) for lacking an awareness of cultural differences:

There is very little ethnic “diversity” in any of the projects, and there is no explicit discussion of cultural difference in the text. Even when projects are reviewed that were produced in particular contexts, East Asia for example, and developed notoriety as a result of culturally specific media platforms and habits, these are not taken into account in any significant way. (p. 172)

Tonkinwise first points out the confusion caused by Dunne and Raby’s use of the pronoun “we” in *Speculative Everything*:

It is disconcerting when, despite most uses of “we” meaning “we, DnR,” many of them are there to invoke humanity in general. The “we” of “We have become a society of individuals ... We live in a very different world now but we can reconnect with that [visionary] spirit ... But to do this, we need more pluralism in design, not of style but ideology and values” (Dunne and Raby 2014: 8, 9) is obviously not the same “we” as “We coined the term critical design ... We feel it is the right moment to offer an updated view of what we think [critical design] is” (Dunne and Raby 2014: 34). But which “we” is the following? (Tonkinwise, 2014, p. 171).

Critical thinking is the aim of speculative design. The book *Speculative Everything* criticizes the fact that market-led capitalism has left no other social or political possibility for design, as anything that does not fit with such a worldview is regarded as fantastical or unreal. Society after the fall of the Berlin Wall and the end of Cold War has become as Margaret Thatcher described it: “There is no alternative” (as cited in Dunne and Raby, 2013, p. 8). However, is this kind of homogenization of everyone, despite their cultural or social background, also something that speculative design should be critical of? (Tonkinwise, 2014, p. 172). Tonkinwise (2014) argues:

It is very apparent that while “we” are all at this moment in the calendar imposed upon us in the name of functional global capital, many of us are in very different “places,” with very different sets of futures ... While we in the North/West seem to have lost our capacity

for visioning, could the same be said for those up and down the line of now in BRIC nations? An Islamic caliphate is a highly motivating vision held by many in our present that is changing what futures are probable if not preferable for many, not just those who promote that vision. (p. 174)

Tonkinwise's argument exposes the problem of speculative design practices in the North/West neglecting the reality that the different region in which one grows up can generate different visions of the future. Therefore, Dunne and Raby's use of the word "we" to refer to "everyone" is not appropriate and further homogenizes people's visions of the future. A similar argument has also been raised in the Iyapo Repository Project – "a future resource library that will houses a collection of digital and physical artifacts created to affirm and project the African diaspora" (RhizomeDC, 2016, para. 2). The project is derived from the relative lack of representation of Africa and people of African descent in contemporary projections of the future, and aims to create the future of black people through artifacts. The artifacts that embody African future include a GPS necklace that vibrates to alert its owners when there is a police involved shooting on the cross-streets of New York City. In addition, "Rock & Roll Afromation" pills are designed to provide specialized black history lessons on "everyone from Sister Rosetta Tharpe to Prince" (Sargent, 2016, para. 3) after they are swallowed. Such futuristic imaginations reflect the present and past encounters of the black community, making them very likely different from the future imagined by the North/West.

Arguments about the future make me wonder about the speculative design scene and the kind of future it presents where I come from – East Asia. Discussion about speculative design has just begun in East Asia; nevertheless, the emerging artworks that use this method have already yielded high quality and innovative approaches that have caught international attention in both the design and media art fields. Japanese artist Ai Hasegawa won Runner Up in the Speculative Design Professional category of the 2014 Core77 Awards with her work "I Wanna Deliver a Dolphin." Two years later, she was the winner of the same award in the Speculative Concept Award Student category for the work "(Im)possible Baby." In 2015, "(Im)possible Baby" also won an Excellence Award at the 19th Japan Media Arts Festival. Taiwanese artist Pei-Ying Lin's collaborated artwork "PSX Consultancy"

received an Honorable Mention in the 24th Biennial of Design 2014, an Honorary Mention in the Hybrid Arts category of Ars Electronica 2015, and Professional Runner Up in the Speculative Concept category of the 2015 Core77 Awards. Her work titled “Tame is to Tame” recently won the BioArt and Design Award 2016. In addition, another Taiwanese artist, Kuang-Yi Ku, won First Prize in the Digital Art Awards Taipei 2015 for his work “The Fallatio Modification Project,” and produced the artwork “Pet’s Pettings” during his artist residency at FACT Liverpool in 2016.

The fact that these artworks can win awards means that they present certain qualities and evidence of in-depth thinking, and also means that the artists are outstanding enough to be representative of East Asia in some way. It is for this reason that most of the works I have chosen are from these artists, as I would like to analyze the futures that are presented in their works. Moreover, the detailed questions I would like to explore include: To what extent does speculative design practice in East Asia address the homogenization process that Tonkinwise refers to, or does it represent a unique approach to the discussion of preferable future? What specific topics or issues do speculative design art works engage with in East Asia? In which cultural contexts do they operate? In what formats are the artworks presented? Are there culturally specific approaches that can be identified? If so, what larger questions do they raise?

To address these research questions, I selected seven artworks that are exemplary of speculative design by East Asian artists, and categorize them into three topics: medical science, human and non-human animal relationships, and familial relationships. I then build three critical frameworks that I use to examine each of the selected artworks. Each framework is informed by various critical theories, philosophical thoughts, historical reviews and current social phenomena. I then apply these frameworks to the corresponding artworks to make an argument that speculative design in East Asia takes on the view that is informed by minority positions to address issues on the hegemony of culture, gender and species, however the approach the artworks take is not pointing out the questions directly but is disguised in the above mentioned topics to argue in a veiled way.

The following chapters address the three topics in turn. Chapter two deals with medical science, which is a topic related to Yi-Yun Chen’s “(Hidden) Skin Interface,” Pei-Ying Lin’s “Smallpox Syndrome” and “Tame is to Tame,” and Kuang-Yi Ku’s “The Fellatio Modification Project.” The subject of chapter three is the relationship between human and non-human animals, and addresses Ai Hasegawa’s “I Wanna

Deliver a Dolphin,” and Kuang-Yi Ku’s “Pet’s Pettings.” The relationship between the individual and family is discussed in chapter four, where Ai Hasegawa’s “(Im)possible Baby” along with “I Wanna Deliver a Dolphin,” and “The Fellatio Modification Project” are further analyzed. Following these three chapters, the results chapter provides a synthesized discussion of the chapters that precede it. Finally, the conclusion offers an interpretation of the results and consequences of this paper and a possible future research direction.

Chapter 2 Medical Science

Although perhaps merely a personal interest of artists, medical science does appear to be one of the topics with which speculative design in East Asia tends to engage. The artworks addressed in this chapter not only show an interest in medical science, but also reveal approaches that differ from western medical science, either by embodying the central theories of traditional Chinese medicine, merging traditional Chinese medicine concepts into art practice, or subverting the principles of western medical science.

This chapter is organized as follows: I will first describe theory from Homi Bhabha to set up a postcolonial condition as the premise for the later interpretation of artworks. Next, after setting up the topic of this chapter, I introduce the social impact of western medicine as a social control and colonial tool. Then, the history and development of Chinese medicine in modern China and Taiwan will be used as an example of imperial expansion in East Asia. Further, I expound Chinese medicine's core concept and the way in which its beliefs, approaches and medical treatments differ from western medicine. With this framework established, I examine Chinese artist Yi-Yun Chen's artwork "(Hidden) Skin Interface," Taiwanese artist Pei-Ying Lin's "Smallpox Syndrome" and "Tame is to Tame," and Kuang-Yi Ku's "The Fellatio Modification Project" to show how the artists address the topic of medical science via speculative design practices, and what further meanings concerning postcolonialism and cultural invasion can be interpreted.

2.1. Postcolonialism - The Location of Culture

In *The Location of Culture*, Homi Bhabha describes that the time in which we now live borders on the "present," as there is no better name than the prefix "post," as used in the terms postmodernism, postcolonialism and postfeminism. Society is now made of hybrids from different ethnic and multicultural backgrounds, rather than the simple opposition of West/non-West, colonizer/colonized. An individual's identity, then, is a complex mix of gender, education, and race. To understand cultural differences, Bhabha argues that we have to move "beyond" – to a place where space and time cross to produce complex figures of difference and identity, past and present, inside and outside, inclusion and exclusion (as cited in Gan, 2015, p. 139). Within the

overlap and displacement of domains of difference, there is the emergence of interstices, which form the “in-between” (Bhabha, 1994, p. 2). For example, an American-born Chinese is living in American and Chinese traditions at the same time and is influenced by both cultures. He is not completely American nor is he completely Chinese; he possesses two time periods and spaces simultaneously, yet belongs to neither. That is to say, he always lives in the “beyond” of somewhere; and this “beyond” also lies “in-between” the interstices of different cultures (Gan, 2015, p. 139).

There are three core concepts in Bhabha’s theory: hybridity, mimicry, and the third place. Hybridity is a condition in which the colonized does not simply resist nor naturally accept what the colonizer gives, but coexists with both resistance and acceptance. Bhabha illustrates the meaning of this term with the story of one of the earliest priests, Anund Messeh, who encountered a group of native people reading the Bible outside of Delhi in 1817. Anund asked the people what the book was and where they had obtained it. The natives replied that it was the book of God, and they had got it from an angel – a learned Pundit. Anund then told them that the book was used by the European Sahibs to teach religion. However, the natives could not believe this, as Europeans eat flesh, which was something unacceptable for a saint to do. Anund continued to ask them the reason that they all dressed in white, to which the natives answered that it was because the people of God should wear white. Anund then suggested they should all be baptized, but the natives refused, as the harvest made them too busy to be baptized. After Anund further explained the nature of the sacrament and baptism in Christianity, the natives accepted baptism but not the sacrament because they could not eat cow’s flesh unless all their country agreed.

This example indicates that Indians accepted the Bible and were willing to read it, but they did not regard the Bible as a gift from the western world, and rejected other customs, especially the sacrament, which was against their original belief. Their reaction to Christianity thus formed a hybridity, which “represented that ambivalent ‘turn’ of the discriminated subject into the terrifying, exorbitant object of paranoid classification – a disturbing questioning of the images and presences of authority” (Bhabha, 1994, p. 113).

Mimicry refers to the imitation of the colonizer by the colonized. However, this imitation often involves mockery and distortion, such that it may look almost the same as the colonizer but not quite. As Lacan asserts: “Mimicry reveals something in

so far as it is distinct from what might be called an itself that is behind. The effect of mimicry is camouflage... It is not a question of harmonizing with the background, but against a mottled background, of becoming mottled – exactly like the technique of camouflage practised in human warfare” (Bhabha, 1994, p. 85). Mimicry usually appears to be obedient to colonial discourse, however, it is a “double vision, which in disclosing the ambivalence of colonial discourse also disrupts its authority” (Bhabha, 1994, p. 88).

The third space exists in between the interstices of different cultures; it emphasizes the penetration and contest between the colonizer and native identities that are simultaneously adopted and subverted. When describing the relationship between the white man and the black man, Fanon asserts that a black man’s psychic choice can only be to “turn white or disappear” (Bhabha, 1994, P. 120). But Bhabha thinks there is an ambivalent space between turning white and disappearing - the third space, and that this ambivalent space enables one to find one’s location within cultural differences.

Bhabha’s description of the psychic change of the colonized in the postcolonial condition will serve as a foundation for me to analyze the self-identity that the artworks present within the realm of medical science. In the following sections, medicine is described not just as a scientific subject that cures diseases, but also as endowed with social and colonial meaning.

2.2. Medicine as social control in the West

Western medicine views illness as abnormal, meaning its function is to cure disease in order to return health to the human body. However, sickness is not merely a physical matter according to sociologist Talcott Parsons (1991), who sees sickness as a social condition that involves entry into a social role.

Being sick was, in an important sense, being deviant. Sickness typically requires withdrawal from work and passivity. Illness involving a temporary, passive withdrawal from work is potentially a threat to the values of the whole system. (Parsons and Turner, 1991 xiii)

Hence, western medicine here has the responsibility to turn the abnormal condition of

patients back to a state of normality. The question becomes, then, what is abnormal and what is normal? And who decides what is normal? Irving Kenneth Zola (1972) asserts:

Medicine is becoming a major institution of social control, nudging aside, if not incorporating, the more traditional institutions of religion and law. It is becoming the new repository of truth, the place where absolute and often final judgments are made by supposedly morally neutral and objective experts. And these judgments are made, not in the name of virtue or legitimacy, but in the name of health. Moreover, this is not occurring through the political power physicians hold or can influence, but is largely an insidious and often undramatic phenomenon accomplished by “medicalizing” much of daily living, by making medicine and the labels “healthy” and “ill” relevant to an ever increasing part of human existence. (p. 487)

Zola proposes the concept of the “medicalization of society,” arguing that medicine has replaced other traditional institutions such as religion and law to become the primary system of social control in western societies. For example, doctors exhort patients to maintain regular lives and a good mood, just as priests did in the early days, but in the name of health. Punishment of criminals also tends to rely on the identification of the criminal’s mental state, as the penalties imposed on mentally normal and mentally ill criminals are different. Zola further indicates that the control of medicine has penetrated from personal daily routines (working, sleeping, playing or eating) and physical properties (nose or breast size, wrinkles and sagging) to our most personal possessions (the inner workings of one’s bodies and minds). In the end, medicine becomes indispensable to one’s good practice of life. However, perhaps most scarily, the control of medicine is invisible because people view it as normal.

In addition, Zola further questions the definition of normality, claiming that normality might be constructed by those in power and used as a tool for social and economic control to solidify their interests. For example, in the West, under a hegemonically heterosexual and patriarchal system, homosexuality was regarded as a disease that needed to be treated with electrotherapy in the early 20th century (Wang, 1999, p. 385). This example reveals the fact that the patriarchy defined normal sexual

orientation, implying also that those who do not fit such a definition must be corrected.

2.3. Medicine and imperialism

Disease has historically been used as a colonial tool, and medicine as a key for western powers to control their colonized lands. The wide spread of smallpox in the Americas in the 15th century is a significant example. Before Europeans invaded America, native Amerindians had never encountered smallpox so did not have immunity to this deadly contagious disease. After Spaniards brought smallpox with them to America, the population of Amerindians dropped enormously due to the disease, giving mere hundreds of settler Spaniards the chance to conquer millions of Aztecs and Incas. Indeed, smallpox was the decisive factor in the Spaniards' victory, and both the Spaniards and Amerindians regarded the plague as "a particularly dreadful and unambiguous form of divine punishment" (McNeil, 1998, p. 207). As Spaniards had immunity, remaining almost unharmed, and Amerindians did not, Amerindians thought their massive death toll was evidence of God favoring the whites. Hence, for the Amerindians, "stunned acquiescence in Spanish superiority was the only possible response, no matter how few their numbers or how brutal and squalid their behavior, the Spaniards prevailed" (McNeil, 1998, p. 208).

Nevertheless, the history of western medicine in East Asia was different. For example, although the invasion of western powers first occurred through missionaries whose primary goal was to introduce Christianity to China, the introduction of western medicine was a more efficient way for the Chinese to come to believe in Christianity. Thus, western medicine served as a means for western power to enter China. Even though China was not colonized, it was controlled by western powers through informal empire systems (including international settlement and extraterritoriality), and was also the country with the most medical missionaries from Christian countries at the time (Li, 2008, p. 2). Besides China, Taiwan was not colonized directly by western powers but instead by Japan, which was a newly westernized country at the time. Through western medicine, the Japanese constructed a colonial ruling system with which they controlled Taiwan, applying the theory that tropical areas produced inferior races to distinguish between the Japanese (from a temperate and subtropical climate) and the Taiwanese (from a subtropical and tropical climate) to argue Japanese superiority (Li, 2008, p. 4). As such, the history of western

medicine's entry into East Asia was still closely linked to the expansion of imperialism. Nowadays, western medicine has been called a "cosmopolitan medicine" owing to it being a powerful aid during imperial expansion and representing modernity. Due to its exclusiveness from other medical knowledge, some historians have even claimed that western medicine had colonial and imperial characteristics (Li, 2008, p. 12).

Nevertheless, it was not only the Europeans who pushed the expansion of western medicine. Many countries believed that modern science, technology and medicine were the keys to strengthening a country after being colonized themselves. The pursuit of modern science, technology and medicine thus became an important part of nationalist movements following the 19th century. Those native medical professionals who had been cultivated by the colonizers usually became local elites and played significant roles in the construction of their nations. After ex-colonized countries became independent, western medicine also held an important position during the modernization movement and acted as an effective means for local elites to acquire substantial support and cultural control (Li, 2008, p. 9). In the case of India, Arnold has pointed out that:

The cultural rhetoric and political authority of western medicine had by 1914 become too powerful for India's elites to ignore. It represented not only an immediate domain of health but also a wider realm of cultural and political hegemony. Terms and images plucked from the colonial language of medicine and disease began to infiltrate the phraseology of Indian self-expression, to become part of the ideological formulation of a new nationalist order. (as cited in Li, 2008)

A similar process also occurred in Taiwan during the Japanese colonial period.

2.4. Chinese medicine and its recent development

One way of charting the political and social history of colonization and western imperialism in Asia and East Asia is by examining approaches to medicine and medical science across Asia during and following periods of colonization and western expansion. We see the influences of the West on local practices, and also the

tension and complex entanglements of modernization and cultural imperialism across Asia. Traditional Chinese medicine originated in ancient China and has a history of more than two thousand years. It was widely applied in ancient China and spread to nearby countries, such as Japan, Korea and Vietnam, to influence the development of medicine. However, Chinese medicine experienced severe blows around the 17th century during the Qing dynasty due to the introduction of western medicine to China.

During the 17th and 18th centuries, when western medicine had just been introduced to China through missionaries, it had not yet threatened Chinese medicine's fundamental status because missionaries were not initially physicians who could provide medical services to Chinese emperors, and western medicine was not more advanced than Chinese medicine (Ye, 2013, p. 11). After western medicine became a scientific medicine, it gradually began gaining supporters, affecting the exclusivity of Chinese medicine in China. Consecutive defeats and unequal treaties followed China's loss in its first large-scale war with a great power from the West. Along with the invasion of western imperialism, western medicine became widespread in China.

The real crisis for Chinese medicine occurred after its defeat in the First Sino-Japanese War in 1894, because this implied the failure of the Self-Strengthening Movement that had been conducted for nearly thirty-five years, and the start of movement toward total Westernization (Ye, 2013, p. 12). Since then, Chinese people have seen western scientific civilization as a symbol of progress, with Chinese medicine being regarded as non-scientific and as a significant obstacle to China's modernization ("Shen-Nong," 2002, para. 7). The most significant change in favor of western medicine was its taking over of the national medical educational system from Chinese medicine (Ye, 2013, p. 12). Since then, formal medical education has used western medicine. The government of the early Republic of China even tried to ban traditional Chinese medicine in 1929. Although the government did not succeed due to the support for traditional Chinese medicine among the people, the practice was still severely destroyed.

After World War II, the leader of the Communist Party of China, Mao Zedong, who was opposed to all shamanic beliefs and superstitions claimed: "old doctors, circus entertainers, snake oil salesmen, and street hawkers are all of the same sorts." Although the government still applied Chinese medicine due to a scarcity of medical resources, Mao's opposition to traditional Chinese medicine had a truly

devastating impact twenty-five years later when his words became the one and only source for the country's orientation and political truth (Fruehauf, 1999). During the Cultural Revolution, Chinese medicine underwent a period of extreme hardship. From 1966 to 1976, schools, hospitals, and clinics were forced to close and many old Chinese medicine doctors were jailed or killed. In 1979, when the Cultural Revolution had finished, the National Association for Chinese Medicine was established and several traditional texts were recovered, edited and republished. After one year, the People's Republic of China formulated guidelines to support and promote both Chinese and western medicine. In 1982, the words "to develop traditional Chinese medicine" were written in Chapter 21 of *The Constitution of the People's Republic of China* (Jia, 2005, p. 16).

Taiwan was a colony of Japan from the victory of the First Sino-Japanese War in 1895 until the end of World War II. At that time, Japan had just conducted the Meiji Restoration, in which western medical science had been embraced. As a result, western medicine was introduced to Taiwan and held a dominant position, with Chinese medicine being forced to be westernized to survive. This meant that a Chinese medicine doctor needed to pass a western medicine exam (including physics, chemistry, anatomy, physiology, pathology, internal and surgical medicine, and pharmacy) to receive a license (Ye, 2013, p. 88). Under such oppression, Chinese medicine nearly went extinct (Ye, 2013, p. 109). After Japan lost the war and the right to colonize Taiwan, the Republic of China's strategy in relation to Chinese medicine remained the same as it had been under the Japanese after they moved to Taiwan in 1949. However, thanks to the introduction of the "Physician Act," which regulates the equal status of Chinese medicine and western medicine doctors, Chinese medicine was slightly revived. Nevertheless, it was not until 1958 that Chinese medicine was adopted into the regular educational system. Nowadays, there are a total of four universities and five departments in Taiwan that cultivate Chinese medicine professionals. In 1995, Chinese medicine doctors became eligible for payment by national health insurance. By the end of 2014, there were 6156 Chinese medicine physicians, 11 Chinese medicine hospitals, and 3637 clinics operating in Taiwan; however, the overall medical environment was still dominated by western medicine (Lin, 2015, para 22).

Interest in Chinese medicine in the West started from 1971. After a *New York Times* journalist underwent an appendectomy in Beijing, his discomfort was largely

relieved by acupuncture treatments. He then wrote an article titled “Now, Let Me Tell You About My Appendectomy in Peking...,” which aroused people’s curiosity. A year later, President Nixon even took a visiting medical group to visit an operation using acupuncture anesthesia during his trip to Beijing. “There is no doubt that this visit to Beijing further amplified American people’s interests in acupuncture and widely spread the news of Chinese acupuncture all over the world” (Li, 2014, p. 82). However, owing to the fundamental difference between traditional Chinese medicine and western medical science, no matter the interest in acupuncture, Chinese medicine is still regarded as an “alternative medicine,” while western medicine is considered mainstream. Has traditional Chinese medicine been accepted in the West? Or does its exoticism simply make it trendy?

2.5. Differences between Chinese medicine and western medicine

What is Chinese medicine, and how does it differ from western medicine? The main difference between Chinese medicine and western medicine is that Chinese medicine seeks to treat the body as a whole that includes a soul or spirit, while western medicine separates different parts of the body and treats them as distinct entities. Western medicine operates on the principle that bacteria, rogue cells, and genetic disorders cause diseases; Chinese medicine, on the other hand, believes disease is a kind of imbalance between the body’s functions. Therefore, when one part of the body goes wrong, western medicine focuses on curing that particular area, while Chinese medicine observes the patient’s symptoms and physical constitution before improving the whole system.

Chinese medicine owes its roots to Taoism’s belief in yin and yang, which are like the two sides of a hill – one sunny, the other shady. They work as “two stages of a cyclical movement, one evolving into the other, such as the day giving way to night and vice versa” (Maciocia, 2015, p. 34). Different parts of the body are classified as yin or yang. Western medicine understands the constitution of a body through anatomy, while Chinese medicine values the function of the whole body, and divides it into Qi (life energy), Xue (blood), Jinye (bodily fluids), and Zang-fu (organs), with all parts linked by the meridian system. Chinese medicines are herb- and therapy-based and use animals, plants, herbs and trees as elements. Acupuncture, auriculotherapy, and moxibustion are treatment methods, which mean needles application to meridian lines, ear acupuncture, and the application combines with

acupuncture and heat.

2.6. The embodiment of Chinese medicine spirit - “(Hidden) Skin Interface”

Although the meridian system in Chinese medicine has been much discussed and is the core principle of Chinese medicine, not one researcher has formulated a definitive model that can give a complete anatomical description of the meridian system, perhaps because it is not like a blood vessel, which has an anatomical channel structure. Even though scientists at Seoul National University have recently confirmed that meridians are part of the “primo vascular system,” which is a crucial part of the cardiovascular system (ReShel, 2016), mainstream western medicine has not yet officially acknowledged the existence of the meridian system.

Focusing on this problem, Yi-Yun Chen’s “(Hidden) Skin Interface” provides us a possible imagination by visualizing the unseen meridian system. The artist makes the meridian system bulge on the human skin like an interface that allows access to our bodies. By doing so, she raises questions like what if the meridian system is visible? If the meridian system is visible and it is evident that it exists, how will this fact affect the field of modern medicine, which is based on human anatomy? Will the field of western medicine, or indeed western civilization and society at large, collapse? And will Eastern cultures thus rise? And finally, as our beliefs about our body’s constitution will be changed, how will this affect the relationship between human beings and their bodies?

Viewing the history of Chinese medicine, the artwork demonstrates a fight back against western medicine from Chinese medicine. Just as it is unfair for Chinese medicine physicians to need to pass the western medicine exam to prove their expertise, it is unreasonable to judge whether Chinese medicine is scientific enough by western medicine standards due to their fundamental differences. The application of western standards results from the world dominance of western medicine, which gives it the right of discourse. As a result of western dominance, marginal notions of truth are seen as having no inherent right to existence, and can only be approved as qualified or not by western standards. Therefore, what this artwork reveals is not that Chinese medicine is inferior, but that it is judged in an unequal structure that should be questioned and challenged. Furthermore, while western medicine represents the power of advancement, Chinese medicine stands for traditional culture, which has been self-depreciated after experiencing defeat. If the existence of the meridian

system is accepted, the value of Chinese medicine will be universally acknowledged, and western medicine need no longer serve as the only major criteria in medical research. In this sense, the artwork reveals hope for a rebuilding of eastern self-confidence and freedom from self-depreciation, as well as suggests a possible hybridity that mixes the East, the West, tradition, and modernity.



Figure 2.1: Yi-Yun Chen, “(Hidden) Skin Interface,” 2014. Source: <http://yiyun-chen.com/hidden-skin-interface/>

2.7. Merging traditional Chinese medicine concepts into art practice - “Smallpox Syndrome” and “Tame is to Tame”

While Yi-Yun Chen imagines a visible meridian system, Pei-Ying Lin’s “Smallpox Syndrome” introduces the holistic concept of Chinese medicine. Ancient Chinese people believed that their existence linked tightly to the universe, where all creatures, including nature and human beings, should live together in harmony. This concept became the core principle of Chinese medicine, which not only regards the human body as a whole, but also says that every kind of living creature, natural environment and person need to live as one.

“Smallpox Syndrome” is based on the increasing trend of “emerging infectious diseases” (as cited in Lin, 2015, para. 4). This phenomenon has led scientists to search for new techniques “to monitor emerging infectious diseases through technique of metagenomics” (as cited in Lin, 2015, para. 4), like those used in weather reporting, to search for the potential presence of pathogens. Due to the speed at which pathogens evolve, human beings need to use vaccines before any

outbreaks instead of wait for outbreaks to develop vaccines. Thus, the attitude toward pathogens has shifted from seeking to extinguish them to instead findings ways to enhance the human immune system in order to combat unpredicted infectious diseases. Marks left on human skin post-vaccination have begun to be symbols of health and fashion. Therefore, with the aim of combining vaccines with makeup, an Asian company² called “VaccineBeauty” establishes a new way of declaring “my body is safe from infectious diseases” (Lin, 2015, para. 7).



Figure 2.2: Pei-Ying Lin, “Smallpox Syndrome,” 2012-2014. Source: <http://peiyinglin.net/smallpox.html>

In Pei-Ying Lin’s latest work “Tame is to Tame,” the artist more explicitly presents the idea of getting along with all creatures peacefully in the manifesto of the project:

For centuries we have undermined the co-existence and co-evolution of viruses and humans and focused only on the hostile side of the viruses. The language of virology and public health is the language of warfare. Individuals who carry the virus are considered the vehicle of the enemy and should be quarantined. Our sole goal is to eradicate the viruses. ... The forgotten parts of virus-human interdependence are nonetheless as

² The artist Pei-Ying Lin described the “VaccineBeauty” company as located in Asia, and all its employees as Asian in an interview. Source from: <https://www.youtube.com/watch?v=foTcoJtE8tU>

crucial as the warfare. Viruses evolve, and we evolve with them. Our immune system as well as our technology evolves and they evolve with us. This deeply intertwined relationship between humans and viruses, and the blurred line of living and non-living is one of the deepest driving forces of evolution. And evolution is the only way to keep adopting to the rapidly changing biological world. (Lin, 2016)

The project then proposes a fictional training program that includes a conceptual dance to limber up the virus tamer's fingers, spine, shoulders, arms and elbows to keep the body in a good condition, as well as a tamer's strategy board game that balances the distance between viruses and human beings, and a tea for tamers that consists of four different Chinese medicines to help them psychologically prepare for the physical pain associated with illnesses. All the designs in the art project show the concept of "prevention is better than cure," no matter whether physical, mental or cognitive, originating from Chinese medicine.



Figure 2.3: Pei-Ying Lin, "Tame is to Tame," 2016. Source:

<https://www.facebook.com/dac.taipei/photos/a.322525418109.150759.279508218109/10154529534768110/?type=3&theater>

Returning to the background of "Smallpox Syndrome," the choice to depict smallpox is intriguing. As stated earlier, smallpox was applied widely from the 15th century as a colonial weapon by western powers seeking to conquer the Americas, and was the most severe among contagious diseases of the time. The spread of

smallpox continued over several centuries and became the major endemic disease everywhere in the world except Australia and several small islands in the mid-18th century. After the smallpox vaccine was created in 1796 by English physician Edward Jenner, the disease continued to diminish among wealthy countries and then in developing countries too. By 1979, smallpox was officially declared eradicated by the World Health Organization. However, the United States and Russia have retained smallpox virus samples in their laboratories for research, which gives rise to the possibility of smallpox being used for biological warfare. This possibility has triggered the artist to forecast a future scenario in which people use vaccines to protect themselves before any outbreaks.

The fictional Asian company VaccineBeauty borrows the symbol of smallpox as the encryption code of its vaccines because the smallpox vaccine was the first to be invented. However, historical records show that the idea of the vaccine was derived from inoculation, which was applied in China as early as the late 10th century. Therefore, given the links between smallpox, vaccines, and colonialism, can we make the brave assumption that this Asian company actually builds upon its ancestors' idea (of enhancing the human immune system rather than extinguishing disease) to resist smallpox, a disease that represents all kinds of unpredicted infectious diseases and was the symbol of colonialism? Underlying the artwork is actually a persiflage to history and a challenge to the hegemony of western medicine— what an irony that the West used medicine as a means to invade and culturally dominate the East, yet still developed an invention of the East into a so-called western achievement.

Furthermore, “Smallpox Syndrome” raises the critical issue of vaccine distribution in contemporary society. Who can get the vaccine? If only rich people can afford the vaccine and to protect themselves from infection, is it fair that the poor have no choice but to die? With this in mind, Pei-Ying Lin has designed different sets of vaccines with different prices to solve the distribution problem, offering a Premier Set for the most wealthy customers, an Immediate Update, a Monthly Update, and a VaccineBeauty' Hack for free. The following is written on the package of VaccineBeauty' Hack:

The OpenSource Hack. Data can be obtained from BioGit and made at home. Use at your own risk. We believe vaccines should be free for all. The true protection for human species against viral infections should

not exist as a parasitic service on the hierarchy of wealth. We should embrace the mechanism of herd immunity – everyone should be vaccinated for the population's good. Nor should the potential of catching diseases be a reason for discrimination. Everyone is equal in the eyes of death. (Lin, 2015)

Although the design harbors the good intention of reducing the problem of uneven distribution, discrimination remains unavoidable. Imagine the potential for banning people who are vaccinated less than once a month from entering public spaces because their immune system might be outdated. Or imagine people being categorized into four classes according to the vaccine they can afford. Will the problem of uneven distribution usually caused by imperialism and capitalism still exist?

In addition, the notions raised in “Smallpox Syndrome,” that marks caused by vaccination can be transformed into makeup and that health is linked with beauty, are not new. Zola has talked about how medicine controls the appearance of individuals in the name of health, such as in the case of obesity, which is considered not beautiful because it is not healthy. Does the idea that “health equals beauty” still thrive in relation to the concept of medicine being used for social control?

2.8. Subverting western medicine - “The Fellatio Modification Project”

Being a dentist and artist, Kuang-Yi Ku's artwork “The Fellatio Modification Project” explores the additional function of the mouth besides aesthetics, pronunciation, and mastication that is unspoken and undiscussed in dentistry textbooks – sex. This project has two sections: “The Male Masturbation Cup Mouth” and “The Bird Beak Clone.”

“The Male Masturbation Cup Mouth” is inspired by sex toys used for male masturbation. Sex toys usually have a concave-convex texture to enhance pleasure while masturbating. But what if such surfaces existed inside the human mouth, so that the human mouth could itself become a sex toy? With such a question in mind, the artist first used a removable orthodontic retainer as a base that can cover the wearer's teeth on the arch, while the upper jaw of the retainer is covered with a soft denture reline material to create a bumpy surface. Later, with the idea of growing real tissue on the retainer instead of artificial material, he then tried a tissue-engineering experiment to cultivate human cells and found that while a bone cancer cell could

work, growing the human cell on the retainer is not yet possible due to limitations in current technology. In the final fictional phase, the artist planned surgery that would implant real soft tissue on the human upper jaw to create a permanent modification to the oral cavity structure.



Figure 2.4: Kuang-Yi Ku, “The Fellatio Modification Project - The Male Masturbation Cup Mouth,” 2014-2015. Source: <http://www.kukuangyi.com/the-fellatio-modification-project---male-masturbation-cup-mouth.html>

“The Bird Beak Clone” is about modifying the human mouth through surgery to be more suitable for oral sex. The concept comes from the erotic movie “Deep Throat,” which proposed that a deep throat could cover more of the length of the penis, thus enhancing sexual pleasure without causing the vomiting reflex. (“NoMans Land,” 2016) Therefore, how to make a deep throat that would not be stimulated to vomit was a crucial challenge. Is it possible to lengthen the oral cavity through surgery? Based on this question, Kuang-Yi Ku used Computed Tomography to take images of his skull before he built a 3D dimensional model on which he carried out simulated model surgery. The model was finally printed using 3D printing.

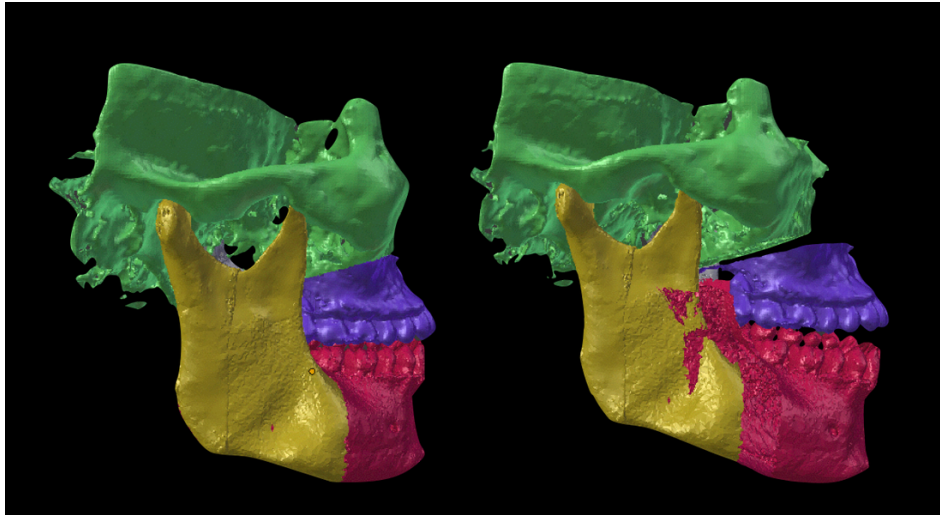


Figure 2.5: Kuang-Yi Ku, “The Fellatio Modification Project - The Bird Beak Clones,” 2014-2015, 3D Model Surgery, Before Surgery (Left), After Surgery (Right). Source: <http://www.kukuangyi.com/the-fellatio-modification-project---bird-beak-clone.html>

The concept (exploring the unspoken fourth function of the mouth), material (retainer, soft denture reline material, human tissue, and Computed Tomography), way of creation (tissue-engineering and simulated model surgery), description (dental professional terms), and way of presentation (Figure 2.6 shows how the layout of the exhibition resembles a scientific experiment) of “The Fellatio Modification Project” all reveal that Ku’s work was created more from a dentist’s perspective than from that of a traditional artist. This background makes the project very authentic, raising the possibility that the technique will become real very soon, and making it a pressing issue to discuss. As a speculative design work, the distance between the present and that which the fictitious art project describes is very short. In other words, such works tend to discuss a future that is very close to the present.

Ku’s proposal may be possible to be realized in terms of the advance of technique, however, how many people would really want to have the surgeries is another question. Once a gay man takes the surgery, he not only needs to suffer the physical pain but also the moral judgment from others (because taking the surgery shows a patient is a gay man who desires oral sexual pleasure), and the latter one probably is harder for him to endure. In this sense, how many people would be brave enough to do that? Nevertheless, body modification is not rare seen in the society no matter in the past or in the present, in the West or in the East; women have been taken various kinds of body modification for ages (such as wearing a corset, wrapping feet,

breast enhancement, and plastic surgery). And these modifications are not less shocking as the ones Ku proposes, but women are still willing to take it to please men. Why is this happening?



Figure 2.6: Kuang-Yi Ku, Exhibition of “The Fellatio Modification Project” at Digital Art Center Taipei. Source: <http://www.kukuangyi.com/the-fellatio-modification-project---male-masturbation-cup-mouth.html>

In this art project, both modifications aim to enhance sensory pleasure during oral sex for gay men rather than cure disease. Moreover, the projects transform a healthy/normal human body into an unhealthy/abnormal one, namely turn a normal/heterosexual male mouth into an abnormal/homosexual male mouth. In other words, the purpose of this project is not “correct” when it comes to a traditional western medicine view. As I wrote in the previous paragraph that the transformation on female body to please men is regarded “correct,” therefore, Ku’s project is not “correct” is because it does not fit with the heterosexual standard. Hence, this project has been presented in such a medically authentic way that it represents a great subversion to and provocation of the medicine system under western patriarchy.

More than that, the project also subverts the conventional image of doctors, especially that of Taiwanese doctors. Doctors in Taiwan usually enjoy high social status and reputation. The positive image of doctors was formed during the Japanese colonial period for several reasons. First, studying medicine was a way for young people from low-income families to achieve a higher social status; therefore, many people strived to be doctors. Second, doctors who studied western medicine had better

medical skills with which to treat patients, and the Japanese government also positioned doctors as people who saved others (and were not only doctors in order to make money); thus, many ordinary citizens respected and admired doctors based on their contribution to society. Third, many doctors at the time not only studied western medicine but also had the chance to absorb other elements of contemporary thought, such as democracy, freedom, equality and human rights; therefore, doctors initiated or participated in many anti-colonial activities, and became enlightenment thinkers who led culture. Moreover, because they had learned western medicine, doctors in Taiwan inherited the image of advancement and modernization of the West, solidifying their superior status in a land with a history of colonization.

In general, the typical stereotype of doctors is that they are knowledgeable, caring, and engage in proper behaviors. From this point of view, Kuang-Yi Ku does not seem so much like a stereotypical doctor; instead, he carries on the elite image but somehow distorts it. Through his artwork, Ku appears to undertake serious and rigorous scientific research as a dentist; however, the queer content and his approach to pursuing sexual pleasure disrupt the authority of dentistry. Hence, Ku himself demonstrates the feature of “mimicry” – his congenital queer identity and desire (Ku is a gay man who has been colonized by imperialism and oppressed by patriarchy), disrupts his acquired image, which represents the authority of imperialism and patriarchy. His art project thus creates a “third space” that is outside the medical framework, is neither colonized nor native.

2.9. Summary

In this chapter, the differences between Chinese medicine and western medicine in terms of their views on the human body, treatment and medication, are illustrated. Western medicine’s character of social control, and its history as a colonial and imperial tool are compared with Chinese medicine’s oppressed history to present the idea of western medicine as cultural hegemony. This context, alongside Bhabha’s postcolonial theory, gives insight into “(Hidden) Skin Interface,” which questions the unequal judgement structure that exists in the field of medicine by visualizing the meridian system; and “Smallpox Syndrome” and “Tame is to Tame,” which depict unique possibilities derived from Eastern medical concepts for treating contagious diseases. Owing to the historical background of smallpox, “Smallpox Syndrome” even reveals a mockery of the imperial invader’s conceit and monopolization. The

cultural and patriarchal hegemony that western medicine represents is further disrupted in “The Fellatio Modification Project” through the exploration of a taboo that is never discussed in dentistry textbooks.

Chapter 3 Human and Non-human Animals Relationships

This chapter discusses the different ways that humans view other animals. Humans have expressed their perspectives on animals since the beginning of recorded history. At the same time, various ways of seeing nature have influenced other aspects of human societies for centuries. The ways in which animals are viewed have changed and evolved according to time and location. In the West, different historic periods have had different understandings of non-human species, and eastern and western perspectives have sometimes been fundamentally different at the same moment in history.

Given the differences between the East and the West, one of the aims of this section is to distinguish whether a diversity of views on nature still persists and, if it does, then how it is revealed through artworks. This chapter begins with an introduction to western and eastern philosophy of animals before interpreting two artworks: Ai Hasegawa's "I Wanna Deliver a Dolphin," and Kuang-Yi Ku's "Pet's Pettings." I will analyze how the eastern perspective functions in these animal-themed artworks, and further explore the particular issues raised by the artworks, such as the ethical issues associated with eating animals, cannibalism, and the possibility of anti-anthropocentric imagination.

3.1. Western philosophy of animals

Before Darwin's theory of evolution, "nearly the entire western world thought that species were immutable categories established in an act of intelligent creation" (Nolt, 2015, p. 124). As early as ancient Greece, Aristotle divided living creatures into three realms: plants, animals, and human beings. To each realm, he assigned a different principle of soul, namely "plants have a vegetative or nutritive soul; animals have a sensitive soul; human beings have a rational soul" (Bos, 2010, p. 821-822). Since animals cannot reason, Aristotle denied animals moral equality and interests of their own. Thus, he asserted that animals were inferior to humans.

Based on the thinking of Aristotle and other ancient Greek philosophers, the great chain of being - a strict, religious hierarchical structure of all creatures that was believed to have been commanded by God - was formed. The chain starts from "God and progresses downward to angels, demons (fallen/renege angels), stars, moon,

kings, princes, nobles, commoners, wild animals, domesticated animals, trees, other plants, precious stones, precious metals, and other minerals” (Kaklauskas, Clements, Hocoy, Hoffman, Kershenblatt, and Ross, 2016, chapter 3). Within this hierarchy, it was also believed that God gave each species a fixed form and purpose, thus establishing a model in which the “lower” beings served the “higher.” As animals were placed below humans, humans were allowed to control and consume animals for food, clothing and various tools.

Under Aristotle’s influence, many medieval western philosophers continued to assume a hierarchy in the natural order and further asserted that God legitimated the hierarchy. Saint Augustine claimed that humans have no duties to animals by pointing out the incident of Jesus allowing 2000 swines to drown:

Christ himself shows that to refrain from the killing of animals and the destroying of plants is the height of superstition, for judging that there are no common rights between us and the beasts and trees, he sent the devils into a herd of swine and with a curse withered the tree on which he found not fruit... Surely the swine had not sinned, nor had the tree.
(as cited in Singer, 2002, p. 192)

Thomas Aquinas qualified Augustine’s position and further freed human from concern or guilt over harming animals. He argued that people can use animals as they wish, as long as harmful behaviors do not carry over to other humans, nor cause any financial loss to the owner of an animal. This theory has constituted the basis of theology since then, such that most Christians believe it as truth (Fei & Yang, 2011, p. 98).

Although the authority of theology had begun to be questioned and challenged by the time of the Age of Enlightenment, the gap between humans and animals was perceived as even larger following the rise of humanism. Compared to the greatness of human beings, animals were perceived as even more insignificant. During this period, the rationality of human beings was greatly emphasized. Descartes even came to see the human body and mind as separated: the body possessing material properties that made it part of nature, making it work like a machine; and the mind (or soul) being a nonmaterial essence that does not follow the rules of nature. The necessary characteristics of being human were found in language and thoughtful behaviors. On

the other hand, animals cannot speak, nor are flexible in their behavior³, so were deemed to be bodies without souls, and, by implication, simple machines without rational intelligence. By this logic, since animals are machines, it was concluded that they have no feelings and no consciousness, and nor do they feel pleasure or pain. Hence, people had no direct ethical duties toward them.

Although Descartes' view of human nature was predominant at that time, there were also some theories about the human and natural worlds that opposed Descartes' view. In reference to animals, Jeremy Bentham (1789) argued: "The question is not can they reason? Nor, can they talk? But can they suffer?" (p. 144). That is to say, the capacity for suffering is enough to entitle an animal the equal consideration of moral interests. However, it was not until Charles Darwin advanced his theory of evolution that the human view of animals began to change. Darwin's theory of evolution overthrew the belief that species are immutable. He affirmed that species change slowly; while some survive to evolve, others perish to extinction. "Non-human animals did not come into existence for the use of humans. They have lives of their own, and many of them flourished for hundreds of millions of years before there were any humans" (Nolt, 2015, p. 124). Moreover, Darwin asserted that people are not made exclusively by God but are evolved from animals. If humans have rights, then animals should also have rights. The theory of evolution grounded the development of animal rights ("How to Do Animal Rights," 2008), and started to change perceptions of the relationship between humans and animals in western society (Nolt, 2015, p. 124).

Since then, an awareness of animal rights has been increasing in modern Western society. The first Society for the Prevention of Cruelty to Animals (SPCA) was established in Britain in 1824 to prevent "wanton" abuse of farm and draft animals. It later campaigned against blood sports, vivisection and inhumane slaughter practices (Grant, 2006, p. 11). "Deep ecology" that emerged around the 1970s has also provided the animal rights movement with an important foundation. Deep ecology proposes that separate parts of the ecosystem function as a whole, and believes all living beings have inherent worth independent from human needs and benefits. It gives the right to exist to all elements of nature and assures the

³ Animals can be superb at one type of task, but cannot apply their ability to a different kind of work. For example, a spider can spin a web better than any human, but it cannot use its abilities creatively.

preservation of each and every species on the planet (Grant, 2006, p. 12).

During the 1970s and 1980s, several important books regarding animal rights were published that challenged the way people thought about animals and the natural world. With the groundbreaking book *Animal Liberation*, ethicist Peter Singer continued Bentham's thought, claiming that the rights of animals should be based on their capacity to feel pain rather than on their intelligence. He argued that not all human beings have high intelligence, as infants or severely intellectually challenged humans may have a lower intelligence than the average human. He also pointed out that some animals display certain levels of intelligence, such as the ability to use some basic tools and understand basic levels of human communication, making them not less intelligent than a human infant. Therefore, according to his argument, if both animals and intellectually challenged humans have the capacity to feel fear and pain, people should not give nonhuman animals any less moral consideration than they would intellectually challenged humans.

With the book *The Case for Animal Rights*, Tom Regan also emerged as a great advocate for animal rights. He argued that rationality is not the essential attribute that all humans have in common, and that it is rather the fact that each of us has a life that matters to us, regardless of whether it matters to anyone else. Regan believed animals to be the same as humans in experiencing being the "subject of a life."

The other animals humans eat, use in science, hunt, trap, and exploit in a variety of ways, have a life of their own that is of importance to them apart from their utility to us. They are not only in the world, they are aware of it. What happens to them matters to them. Each has a life that fares better or worse for the one whose life it is. (Regan, n.d., para.1)

As non-human animals also constitute living subjects, if we want to ascribe inherent value to individuals, we must also ascribe intrinsic value and moral rights to beings, regardless of whether they are human or non-human.

Both Regan and Singer's theories continue to profoundly influence many animal activists and the free animal movement today. Within a year of the publication of *Animal Liberation*, the British-based Animal Liberation Front (ALF) was established, while several other animal liberation organizations have since been

created. Regan's books were pioneering in the field of animal rights and also provoked discussions in the vegan community.

3.2. Eastern philosophy of animals

Since the term "animal rights" derived from the West, there are no particular theories advocating that animals should possess individual rights to have originated in the East. Nevertheless, we can identify various perspectives for viewing animals in eastern religion and philosophy, such as Buddhism, Confucianism, and Daoism.

Animals have always been regarded in Buddhist thought as sentient beings, which are living creatures with matter, sensation, perception, mental formations, and consciousness. Buddhism holds that each sentient being's individual life should be respected. The core principle of Buddhism is "no harm," which can be applied to all sentient beings. Actions that result in the taking of life, whether directly or indirectly, contradict this fundamental principle. As a result, practicing Buddhists are prohibited from eating meat, fish and all animal products. Furthermore, Buddhists believe in the doctrine of rebirth, which posits that any human can potentially be reborn as animal, and that any animal can be reborn as human. Reincarnation results in the philosophy that all beings are interconnected, and leads to the idea that humans and animals are ultimately part of a single family. In the end, it becomes difficult and unnecessary to apply distinct moral rules to animals and humans.

Different from Buddhism, Confucianism sees people and animals as unequal. The core value of being a human is "all men have a mind which cannot bear to see the sufferings of others," and this is also the characteristic that distinguishes human species from animals. While animals do not have the character of sympathy, Confucianism considers animals to be of a lower moral order than humans. Nevertheless, this is not to say that Confucianism agrees with the inhumane treatment of animals. Instead, it holds that all persons should decrease the suffering of others as much as possible. Confucianism also rejects that the function of animals lies only in serving human beings, and does not agree that people can consume animals as freely as they want. Mencius once said, "If close nets are not allowed to enter the pools and ponds, the fishes and turtles will be more than can be consumed. If the axes and bills enter hills and forest only at the proper time, the wood will be more than can be used" (Legge, 1895, chapter 3.3). This saying implies that people can consume animals, but only during the proper time and with proper treatment. The relationship between

humans and animals should reach a balance so that all life can be continually sustained.

Daoism asserts that people should live with all things in harmony. Zhuangzi believed in a “way” that generates how everything in the universe runs, *Dao* (the way). *Dao* is indiscernible to the eyes, ears, nose, mouth or skin, but it exists before everything; therefore, *Dao* is not limited in terms of time or space. Since the universe operates according to *Dao*, human beings must also follow this natural way spontaneously. Zhuangzi believed *Dao* to be the essence that exists in all things, including animals, plants, inanimate objects, and even excrement. No matter the operations of nature (cycles of day and night, changes from spring to summer to fall to winter) or the rise and fall of human activities, there is a way in which the world operates naturally.

Once one understands the spirit of *Dao*, one realizes that everything in the world is equal. One should not distinguish things based on secular value because those values are formed by human beings, not from *Dao*.

From the point of view of the Way, things have no nobility or meanness. From the point of view of things themselves, each regards itself as noble and other things as mean. From the point of view of common opinion, nobility and meanness are not determined by the individual himself. (Waston, 2013, p. 129)

This passage implies that the existence of every creature in this world is a miracle from the Creator, and that every species and its ability are unique in the universe. In the eye of the Creator, everything is equal, so how can human beings regard themselves as the most valuable creature of all? Are not humans just one among hundreds and thousands of other creatures? Humans need air, water, and sunshine to survive, as do others; humans grow old, get sick, and die, as do others. How can people judge who is noble and who is mean? Only from viewing everything as equal and removing the distinction between human and other can people live in harmony with all things as a whole and enjoy the delight of wandering through all of creation.

Overall, the eastern view of animals is more similar to the modern understanding of how animals should be treated because it does not wish to see animals suffer and does not deny the value of animals as independent from humans’

needs. Unlike the traditional western animal view, eastern view does not determine the value of animals according to their intelligence, but by their ability to sense and their inherent value. There is no strict hierarchical structure assigned to living beings; therefore, there is no obvious distinction between humans and other animals, nor is the boundary between these two strongly emphasized. Although animals and humans have never been perceived as completely equal, the East has traditionally rejected the treatment of animals merely for the individuals' own sake and refused to harm animals cruelly, instead, trying to achieve an ideal balance between humans and other species.

3.3. Blurring the boundary between human and non-human – “I Wanna Deliver a Dolphin”

Following advancements in technology, we have seen the emergence of artificial creatures such as cloned sheep and gene modified fish that have challenged our perspective on animals once again. How do these advancements influence our society? What important issues have been raised?

Ai Hasegawa's “I Wanna Deliver a Dolphin” includes an anatomical section sculpture of the human womb containing a dolphin fetus, a video of a woman giving birth to a dolphin in a swimming pool, and a dilemma chart of a woman's pregnancy choices (having a child or not, having a human baby or non-human baby). According to the artist:

This project approaches the problem of human reproduction in an age of overcrowding, overdevelopment, and environmental crisis. With potential food shortages and a population of nearly seven billion people, would a woman consider incubating and giving birth to an endangered species such as a shark, tuna or dolphin? This project introduces the argument for giving birth to our food to satisfy our demands for nutrition and childbirth and discusses some of the technical details of how this might be possible. (Hasegawa, 2013, para. 2)

This proposal is not merely a ridiculous assumption but in fact has the scientific foundation necessary to support its possibility of realization in the future. First, not all

species are suitable for human incubation; the choice of Maui's dolphin as an ideal "baby" is based on its similar size and body temperature to the human baby. Second, a synthesized "Dolp-human Placenta" is needed to give birth to a dolphin from a woman's womb. Unlike the normal human placenta that passes oxygen, carbon dioxide, nutrients, hormones and antibodies (Immunoglobulin Gamma, IgG) from mother to baby, the Dolp-human placenta blocks the delivery of IgG from the human mother to the baby dolphin, with IgG instead originating from the dolphin's side. Then, the decidua is formed by the implantation of the egg and is modified to be more tolerant to not only human cells but also to other mammal cells. Lastly, after delivering the dolphin, the dolphin needs to be fed with "first milk" for it to acquire sufficient antibodies and fat. Even though the artist did not really implant a dolphin inside a female body, given the anatomical section sculpture, fictional video of giving birth in the water (Figure 3.1), and scientific description, the proposal creates an authentic enough scenario for speculation in which readers can immerse themselves.



Figure 3.1: Ai Hasegawa, Anatomical sculpture and video clip of "I Wanna Deliver a Dolphin," 2013.

Source: <http://aihasegawa.info/?works=i-wanna-deliver-a-dolphin>,

<https://www.wired.com/2013/12/hungry-these-cheeses-are-made-from-human-skin-and-sweat/>

What is speculated on? It is obvious that the artwork challenges the nature of female reproduction from both a physiological and social point of view. With the assistance of synthetic biology, how do physical changes (the ability to deliver non-human species) affect the idea of motherhood? Can a blood relationship exist between human mothers and animal babies? What are the ethical issues associated with giving

birth to endangered species as food? And how would the ability to deliver non-human species effect the boundary between humans and non-humans? These are the questions to be addressed in this chapter.

Ai Hasegawa's work "I Wanna Deliver a Dolphin" has been exhibited across Europe, North America and Asia, including in Science Gallery Dublin's *Grow Your Own – Life After Nature*, WRO Art Center's *Eco Expanded City/Synthetic Nature*, Luckman Fine Arts Complex's *The Long-Lasting Intimacy of Strangers*, and a solo exhibition titled *Ai Hasegawa Second Annunciation* in the Art & Science Gallery Lab AXIOM in Tokyo. Critical and popular receptions of "I Wanna Deliver a Dolphin" have been mixed. The work received significant media exposure, and due to its controversial content, many expressed their negative opinions on the Internet. Most comments said that the idea of the female human body giving birth to endangered animals and further turning the creatures into food was weird, crazy and sick. One blog claimed the idea "would not only be exploitative to the women who carried these animals, but to the animals themselves" (Croswell, 2013, para. 6). In Hasegawa's interview with the French cultural magazine VICE, Hasegawa said she was depicted as "a weird Japanese woman who wants to give birth to a dolphin and eat it!" She was surprised to be treated like a pervert by the French media, whereas the audience unexpectedly viewed her work with interest and smiling faces in Catholic Ireland (Shomura, 2016).

It is intriguing that many people cannot accept the idea of a non-human animal being inside a human body. Does this reflect that a huge boundary between humans and non-humans still exists?

In western epistemologies, nature is relationally defined, often paired dichotomously with culture, and the relationship between them shifts, as culture controls nature, yet nature is prior to and underlies culture. The relationship is not static but, rather, a continuous process of transformation, a changing hierarchy in which meanings shift depending on the formulation of control. (Dow and Boydell, 2015, p. 3)

This view of nature-culture dualism explains the boundary between human and non-human animals and the control mechanism from human to non-humans in western

society. Therefore, the exclusion of the non-human other from the human body becomes understandable.

Hasegawa not only suggests women carrying dolphins, but the dolphin can be served as food. In research on the art and design visions of future foods, Vaage (2016) cites four speculative design works in discussing future food. Besides Ai Hasegawa's "I Wanna Deliver a Dolphin," other artworks include the Center for Genomic Gastronomy's "De-extinction Deli," Oron Catts and Ionat Zurr's "Semi-Living Steak," "Disembodied Cuisine," and "Nano Supermarket," all of which feature de-extincted meat and in vitro meat products. While the flesh in "De-extinction Deli" was made from cloning, synthetic biology and other means to bring animals back from extinction to become food again, the meat in "Semi-Living Steak" and "Disembodied Cuisine," was made by lab-grown skeletal muscle cells. The sub-project "In Vitro Meat" in "Nano Supermarket" also features lab meat. None of these examples tackling the food shortage issue (caused by humans) speculatively use the human body as an agent like "I Wanna Deliver a Dolphin" does.

As an artwork made by a Japanese artist, the idea of humans reproducing dolphins seems to reveal an attitude that is beyond nature-culture dualism and accords with the eastern philosophy that human beings are just one species in the world among all others, and not necessarily the most precious of all. Given that humans and dolphins may become one family through reincarnation, why bother about the differences between us now? Therefore, for the sake of environmental balance, people can contribute their bodies as a means of maintaining ecological diversity as a kind of reparation for the inhumane treatment of animals by humans until now. In the water birth video⁴, the use of the dolphin way of giving birth, rather than a hospital-based human birth, also creates a harmonious scene between the two species.

In a nature-culture dualism worldview, nature is used as an ultimate reference point from which to make sense of human behavior. In *After Nature*, an analysis of kinship and nature in late 20th century England, nature is described as having the capacity to act as a baseline or universal reference point, and also as laden with moral authority and ethical potency in contemporary Britain (Dow and Boydell, 2015). Therefore, when "I Wanna Deliver a Dolphin" suggests the possibility of giving birth

⁴ Water birth video of "I Wanna Deliver a Dolphin." Source from: <http://aihasegawa.info/?works=i-wanna-deliver-a-dolphin>

to endangered species with the aid of synthetic biology, people can no longer depend on nature to tell who we are, how we are related to each other and how we should live. “Nature would, in other words, lose its ontological and moral purchase. Meanwhile, morality and ethics would become increasingly individualized because of a lack of stable reference points in a world where biotechnology has shaken former certainties” (Dow & Boydell, 2015, p. 3). Thus, ambiguity over whether the creation depicted by the artwork is “natural” is what scares people the most. As the natural and unnatural has been blurred, the question becomes whether the species born from synthesized placenta is still authentic? If the species is one day sold as food, does that count as eating an animal or human “baby?”

One might think the idea of a human conceiving an endangered animal is understandable and acceptable. However, if one of the aims of the speculative design is to produce endangered species as food, is there not a contradiction inherent? In dealing with the ethical issues involved in biology related artworks, Vaage (2016) proposes that the fundamental point is that the artwork needs to be treated *locally*:

Each artwork considered separately for its particular ethical relevance. In other words, the particular artwork’s artistic context, its geographical and historical situation, its relation to the methods used, as well as its political and societal dimensions, should be taken into account in the analysis. (p. 92)

As a country surrounded by sea, the Japanese have a long history of eating fish. Fish meals such as sushi, sashimi, and grilled fish consist of a major part of Japanese cuisine. The species (shark, tuna, and dolphin) Hasegawa proposes to deliver are all delicacies in the eyes of the Japanese. However, as eating such delicacies has resulted in the species becoming endangered, people are condemned if they eat them. But if there is an emerging technology that can produce these animals and ensure they are no longer threatened, does it not make sense to eat them?

This contradiction is what Hal Herzog (2010) has called “the troubled middle,” which describes “people who think animals should be treated well, but still consider it sometimes permissible to use them for research, meat and other purposes that are advantageous to us” (Vaage, 2016, p. 263). Like Hasegawa, she wants to save the endangered Maui’s dolphin, but somehow cannot resist the delicious flavor of

dolphin meat (Roy, 2012). Indeed, it is not only Hasegawa who has this kind of thought; the phenomenon of ambivalence is quite commonly seen in our society. How can we judge by moral principle? Herzog (2010) argues that “the troubled middle makes perfect sense because moral quagmires are inevitable in a species with a huge brain and a big heart” (p. 20). Perhaps the troubled middle is our best description of the complicated relationship between humans and animals for now.

Besides eating endangered species, another controversial idea is for a mother to eat what she has delivered. But Hasegawa justifies the notion: “after all, there are some animals who eat their own babies. And we do eat veal, which comes from inside a cow. We even kill people, not even for food, and they too come out of somebody’s womb. I really don’t see the problem” (Roy, 2012, para. 14). Hasegawa also thinks that if she were to give birth to a dolphin, she would like to track its location with a GPS. And once it is sold on the market, she would buy and eat it to return it to her body one last time (Roy, 2012).

Would such an action cause Hasegawa to lose her motherhood? This issue is related to maternal bonding in surrogacy. In general, there are two main types of surrogacy: traditional surrogacy and gestational surrogacy. Traditional surrogacy involves natural or artificial insemination of a surrogate. Usually, the intended father’s sperm is used in the insemination; therefore the resulting child is genetically related to the intended father and genetically related to the surrogate. Gestational surrogacy takes place when an embryo created by in vitro fertilization (IVF) technology is implanted in a surrogate. This embryo is usually created using the intended father's sperm and the intended mother's egg. In this way, the surrogate’s genes are not involved in the process and just act as a gestational carrier. Gestational surrogacy is more common because it avoids the problem of multiple parenthood, and as a result, it is more reasonable to expect a surrogate to give up bonding with the resulting child.

In the case of “I Wanna Deliver a Dolphin,” a synthesized “Dolp-human Placenta” and dolphin embryo are implanted into a human womb, avoiding human genes entirely. Therefore, the human mother is just a gestational carrier. From this point of view, it seems legitimate for a mother to eat the fish she delivers. After all, she is supposed to relinquish bonding with her baby, and that makes the fish almost the same as the others sold on the market.

However, in recent ethnographic research on the maternal bonding of

surrogate mothers, all the surrogate interviewees claimed that the experience of pregnancy, a “nine-month head-start” that creates intimacy between the baby and surrogate mother, makes the maternal bonding of a woman and what she gives birth to a natural phenomenon (Dow, 2015). One interviewee expressed:

I can fully understand the attachment after having gone through all the process of having the baby growing inside you must, you can't shut yourself off from that, you can't treat it like it's a job, so I can understand the emotional attachment. . . . It must be very natural for a mother to want to keep the baby. (Dow, 2015, p. 96)

As such, this “natural” concept of motherhood is heavily laden with moral values judging one's behavior and relationships (Dow, 2015). People assume it is natural for a mother to love her baby. If a mother does not, as is the case in Hasegawa's proposal of eating her dolphin baby, she suffers moral condemnation. By setting the extreme scenario of a woman delivering a dolphin, “I Wanna Deliver a Dolphin” presents the ethical dilemma that surrogacy provokes, asking whether bonding still exists if the baby is a non-human? Does the “kick in” from a baby still form intimacy? This artwork questions the nature and ethics of motherhood in an age of surrogacy and medical interventions like in vitro fertilization.

3.4. “Pet's Pettings,” whose petting?

The subject of the following artwork also centers on intimate relationships between humans and their pets. There are several possible reasons that people have pets. Pets can be good companions to humans, can make their owners happier, healthier and more loved, can mitigate human loneliness, and can make people feel needed. However, without a time machine, we will probably never know when and why the first person decided to live with animals closely rather than cooking them into a meal.

Although housing animals as pets may result from the love of individuals, whether this is good for the animals themselves is questionable. Regan once said, “Being kind to animals is not enough. Avoiding cruelty is not enough. Housing animals in more comfortable, larger cages are not enough. Whether we exploit animals to eat, to wear, to entertain us, or to learn, the truth of animal rights requires

empty cages, not larger cages” (Regan, 2004, para. 1). Sociologist Leslie Irvine also writes, “If we recognize the intrinsic value of animals’ lives, then it is unethical to keep them for our pleasure, whether we call them companions or pets” (as cited in Herzog, 2010, p. 96). Furthermore, there is a phenomenon of humans turning their pets into simulations of real people: owners like to dress up their pets with clothes and accessories, or even send their pets to a beauty salon. However, do animals really need clothes and makeup? Is such an action good for pets or for owners? To tackle these questions, the artwork “Pet’s Pettings” by Kuang-Yi Ku explores the question, “what if pets had sexual rights and could freely have sex like humans?”

“Pet’s Pettings” was inspired by artist Kuang-Yi Ku’s encounter with his friend’s cat. He saw the cat behaving strangely in heat and had a feeling that the cat wanted to have sex, but still could not understand exactly what it was that the cat wanted (Hall, 2016). This encounter motivated him to think about the sexuality of pets. Generally, during the oestrus cycle of dogs and cats, dogs become impulsive and aggressive, triggering them to destroy furniture and run out of the house to fight with other dogs. Cats become very vocal, annoying not only their owners but also neighbors. If left in heat without relief, they may give birth to many babies, increasing the number of stray animals. In addition, male dogs and cats are more likely to develop testicular cancer, while female dogs and cats can contract potentially fatal pyometra.

Nowadays, a common way to solve sexual problems in pets is through neutering/spaying, which means the removal of all or most of an animal’s reproductive organ. As a result, animals are claimed to be healthier, live longer and have a tamer personality. However, rather than say neutering/spaying is for a pet’s good, it would be more accurate to say neutering/spaying is for a pet’s good according to human beings, as neutering/spaying decreases the number of stray dogs and cats, thereby causing less trouble for humans. Neutering/spaying also makes pets tamer and more suited to domestic living. But do humans have the right to remove their pets’ sexual organs from the animal’s point of view? Who decides pets’ sexual rights? Do pets even need sexual rights?

Under the assumption that pets need sexual rights, just as human beings do, is there any alternative solution to managing pets’ sexual desire instead of neutering? In “Pet’s Pettings,” Ku proposes two options. First, in place of castration, he adopts human methods of contraception for pets. Thus, he suggests the idea of spray-on

condoms and oral contraceptive pills for pets. Beyond the sexual act, Ku considers the social and emotional aspects that precipitate the sexual act by helping pets find potential partners. Ku conceives of a pet - centered dating app specifically made for pets to find partners with assistance from their owners. As such designs could become real in the future, the next question is where pets can have sex? Dogs and cats can simply date their partners at home, but if the pet's petting phenomenon becomes routine, how will that influence society?

Ku imagines the invention of three types of living conditions and future scenarios (Ku, 2016). The first type of space is a cat apartment. He applies the human marriage system to cat relationships. Once two cats decide to commit to a long-term relationship via the dating app, cats and their owners have the opportunity to move to a neighborhood that is built by a construction company that belongs to the pet app developer. Here, considering the owners of the married cats are probably strangers who have hugely different lifestyles, cat owners can still keep their private apartment with their cats, but a passageway that connects the two living spaces can allow cats to date in a private space without disturbance. However, if the cat's marriage fails, the owners will probably need to pay a fortune for alimony and passageway deconstruction.

Two Units of the Community

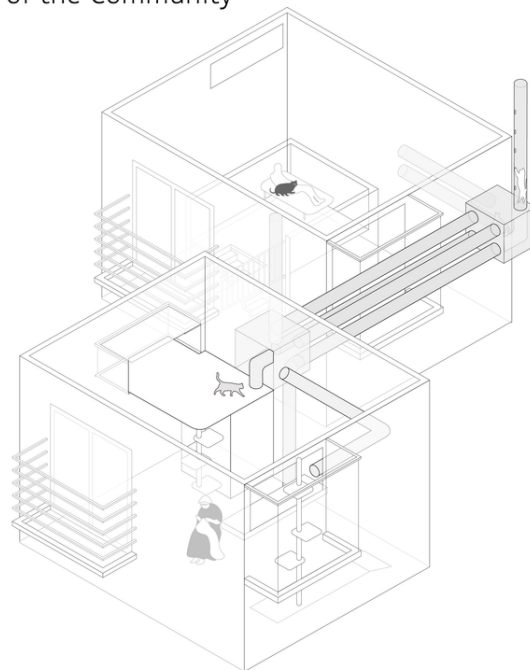


Figure 3.2: Kuang-Yi Ku, "Pet's Pettings," 2016, Model of cat apartment. Source: <http://www.kukuangyi.com/pets-pettings.html>

The second type of architecture is a dog's love hotel. The love hotel is designed according to dogs' character and the prevalent use of pet networking apps. It also promotes the sexual tourism industry. Each hotel room is divided into two areas, one in which dogs can have sex, and the other in which the owners can relax. The partition wall is made of one-way transparent glass for the owners to watch their pets' activity as they please. In addition, the hotel also features common facilities, such as a gym, sauna and bar, that owners can access while waiting for their dogs. Walls in the common area are also made with one-way glass. The promotion package of the love hotel includes a speed-dating event for dogs. If the dogs are matched in the end (by detecting whether the sex pheromones of the two dogs are emitting a certain amount) they can enjoy having sex directly in the hotel. If the owners also match with each other, the love hotel provides spaces for them too, even offering them the unique experience of watching their dogs doing the same thing through the partition.

Concecpt of Love Hotel

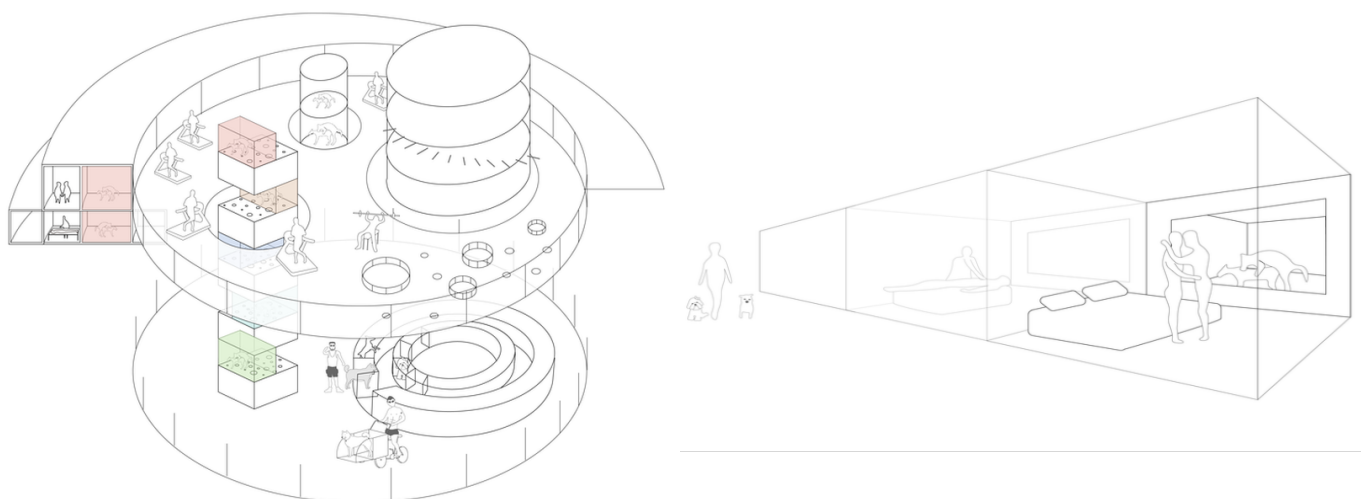


Figure 3.3: Kuang-Yi Ku, "Pet's Pettings," 2016, Model of love hotel for dogs. Source: <http://www.kukuangyi.com/pets-pettings.html>

Besides love hotels, sex parks are designed for dogs to have sex for free. Not every pet owner has a smartphone on which they can use dating apps, nor the money

to take their pet to a hotel. Pet owners who are homeless, for example, can take their dogs to a sex park. The park consists of several dog hormone sensors. When a dog approaches the sensor, it will indicate if the dog is in heat. A red light flashes to indicate a male dog is in heat, while a flashing green light means a female dog is in heat. This design allows pet owners to identify potential sex mates for their dogs. Once they find a suitable match, dogs can have sex on the slopes and in the concealed spaces that are specially designed within the park to avoid disturbance from owners. The design still allows the owners to observe what is going on from a distance.

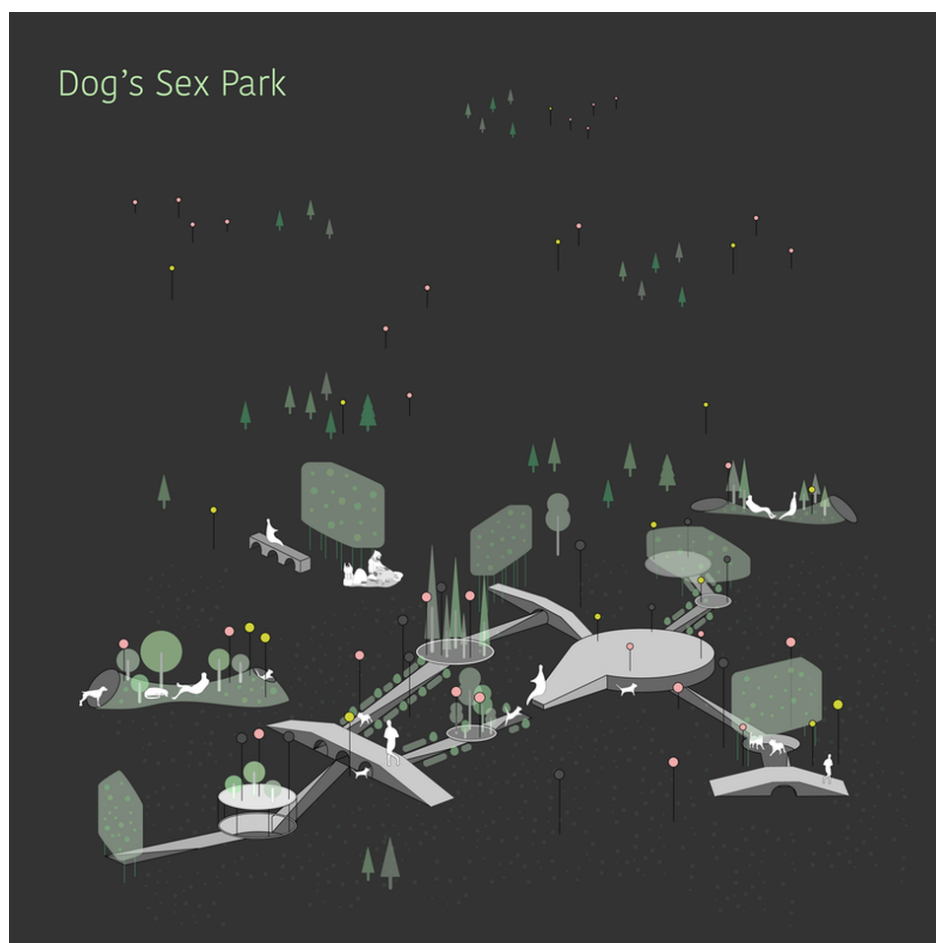


Figure 3.4: Kuang-Yi Ku, “Pet’s Pettings,” 2016, Model of dog’s sex park. Source: <http://www.kukuangyi.com/pets-pettings.html>

What is the relationship between owners and their pets in the interesting future scenarios proposed by Ku? Are they families, friends, roommates or something ambiguous? Will pets start to build their circles, no longer behaving tamely as domestic animals that belong to their owners, as a result of pet dating apps? If so, can owners accept this? Moreover, due to more frequent interaction between their pets, will a new kind of relationship be established among pet owners too? Owing to all

these possible social changes, how will the industry be regulated according to that? Ku already shows how the architecture industry can supply a new design for pets' needs in his proposal, as well as how the tourism industry can promote dog love hotels and unique sex parks. I assume that the catering business, the sex industry, the fashion industry and much more will soon catch up with the new trend. Will a world in which humans and animals are equal thus be born?

As pet owners and lovers often imagine their animals as innocent companions, almost eternally infantile in their cuteness, they tend to ignore animals' physical needs (Frank, 2016). However, this proposal seems to confront such an idea, raising the possibility of sexual needs and desires in pets. Nevertheless, the design of animal condoms, oral contraceptive pills, pet-centered dating apps and sex-related living environments also derives from a human's point of view with the assumption that the design might suit animals' needs. But what if the sexual needs of pets are different from those of people, and they do not pursue sexual pleasure like humans do? Some people assert that pets actually do not feel pleasure during sexual intercourse and that their sexual urges are a physiological instinct. The aim of instinct is to reproduce offspring, not because they enjoy having sex. In this case, what would this project mean to us?

I suggest that the attempt to stand in another species' shoes and reconsider its current status, especially in the case of minorities, is valuable in itself. On the same topic of animals, artists can speculate from very different views. For example, "Life Support" from Revital Cohen and Tuur Van Balen addresses a symbiosis between pets and humans. "Life Support" proposes:

Using animals bred commercially for consumption or entertainment as companions and providers of external organ replacement. The use of transgenic farm animals, or retired working dogs, as life support "devices" for renal and respiratory patients offers an alternative to inhumane medical therapies. (Cohen & Balen, 2008, para. 2)

In this case, a pedigree greyhound that has a large chest capacity is proposed to be used as a medical device for respiratory patients after five years of training as a lure chaser. The dog's rapid chest movement is precisely suitable for pumping a bellows that pushes air into the patient's lungs. Both artworks propose a symbiotic

relationship between pets and human beings: “Life Support” deals with how to apply the ability of animals to enhance the human world; while “Pet’s Pettings” focus on how human society can be adjusted so that animals can gain more sexual rights.

In addition, although it is hard for a person to answer which proposal pets would prefer, Ku suggests that we cannot entirely deny the possibility of animals’ sexual demands. And by shaping an extreme scenario (a sexually liberated society in which pets mimic human sexual practices) so that readers consider the most desirable way to tackle the sexual issues of pets, this artwork raises a crucial question: can humans really understand the desires of other species? If not, can we choose to ignore other species’ needs and rights and just control them for the good of humans, just like we did in the old days? Or should we step out of the anthropocentric paradigm and try to think from a nonhuman point of view, rather than making human assumption (Giorgio, 2016)? What method can we use to achieve to do so? Is it worth or even possible putting so much effort into truly understanding other species? And is it necessary to try to realize an equal world that is not human-centered?

3.5. Summary

At the beginning of this chapter, I outlined some of the different perspectives on human-animal world between the East and the West: in the West, animals have traditionally been considered inferior to humans before the theory of evolution. People believed animals were born to serve them, giving them the right to control and treat animals as they pleased without any moral responsibility. When Darwin proved that humans evolved from animals, people became aware of the idea of giving animals rights that they deserved. In the East, the boundary between humans and animals has been less differentiated. Although animals and humans have never been considered equal, people have not been encouraged to consume animals only for their own sake, but tended to instead cherish the inherent value of animals.

“I Wanna Deliver a Dolphin” proposes humans giving birth to endangered species as a solution to the food shortage crisis; however, this idea has provoked many negative comments. Furthermore, of the several speculative works that address future food, only “I Wanna Deliver a Dolphin” contributes the human body as a means to solving or as a kind of reparation for the food shortage. Therefore, this paper assumes that this artwork presents an eastern perspective in raising the possibility of dismissing the boundary between different species. “Pet’s Pettings,” on the other

hand, does not demonstrate a clear eastern view, and neither does it present a typical western logic that proposes using animals for humans' own good. Instead, this artwork attempts to rethink the human world from the point of view of animals.

Even though "Pet's Pettings" may not accurately think from another species' point of view, by mimicking human sexual life to create a future scenario for free pet sex, this artwork actually raises the question of "can we really understand what others want?" "I Wanna Deliver a Dolphin" brings out the ethical questions of eating endangered species and of a mother eating her own baby. When it comes to endangered species, this paper suggests that this moral issue should be judged locally. As for the issue of eating one's baby, this paper compares the hypothetical dolphin case with surrogacy and argues that the artwork clearly questions the maturity and moral values of motherhood by raising the possibility of delivering a dolphin instead of a human child. Finally, these two artworks show the complicated relationship between human beings and non-human animals, which people have tried to treat animals well but lack of method, and could not decide whether humans or animals' interests should be prioritized.

Chapter 4 Familial Relationships

From both a historical and cultural perspective, the concept of an “ideal family” is a core value in East Asia. The so-called ideal family in East Asia usually consists of a father who earns money to support the family, a mother who takes good care of the household and the children, and their obedient and well-behaved biological children. Although the value of nuclear and biological family and traditional roles exists in the West as well, which makes no fundamental difference on the familial relationship between the East and the West. However, due to the influence of Confucianism in most Eastern Asian countries over thousands of years, its emphasis on the traditional roles, filial piety and collectivism somehow preserves the traditional values in the East Asian countries more deeply, and thus delays the progress of gender equality and women and LGBTQ rights in East Asia than in the West.

This chapter critically examines several artworks that relate to gender, queerness, procreation, and sex. I will expand on my discussion of Ai Hasegawa’s “I Wanna Deliver a Dolphin” in order to further examine the themes of gender and heteronormative domestic roles, and will use another artwork “(Im)possible Baby” by the same artist to analyze the challenge to the ideal family represented by same-sex parenthood. Lastly, I will critically examine Kuang-Yi Ku’s “The Fellatio Modification Project” and articulate how queer thought is demonstrated in an East Asian cultural context.

4.1. Family view in East Asia

In most Eastern Asian countries, including Taiwan, China, Hong Kong, Japan, and Korea, Confucianism has had an enormous impact on the formation of relationships between family members and different genders. The tenets of Confucianism, emphasizing *jen*, *fen*, *xiao* and collective consciousness, are fundamental to societies across East Asia and have become a cultural and common sense regulating people’s conscious and unconscious behaviors. Confucianism originated from ancient China, where societal structure was based on blood relatives and ethical norms. Ethics were rooted in one’s behavior among family members and then extended to the way of treating people within the whole country. It has long been assumed that the family has decisive influence in a child’s life. Therefore, getting

families right was very significant, and good families served as the foundation of ancient Chinese society.

Jen (human-heartedness) is the core virtue of Confucianism, and acts as the moral guideline by which a person must treat others and maintain a good family. To fulfill *jen*; first, one has to love others. Second, “the man of *jen* is one who, desiring to sustain himself, sustains others, and desiring to develop himself, develops others.” Third, one should not do to others what one does not wish upon oneself (Kim and Park, 2000, p. 231).

Although the way of treating others should be based on *jen*, the five cardinal relationships in the Chinese Confucian tradition - that between the emperor and minister, father and son, husband and wife, among brothers, and among friends - are hierarchically ordered, which cause inequality within those relationships. Except for relationships among friends, the other four links differentiate between the upper position and lower position. In this hierarchy, each person is given one's *fen* (place) in life. *Fen* constitutes the belief that “each thing in nature and cosmos has a fixed place, akin to the fixed social places of father, wife, older son, younger son, and so forth in the family” (as cited in Kim and Park, 2000, p. 232). Each *fen* has attached roles for each person to fulfill. It is further believed when each individual obtains his or her place and accomplishes his or her duty there is tranquility; when one loses one's place without fulfilling one's obligation, there is disorder (as cited in Kim and Park, 2000, p. 232).

Such a close-knit structure between familial and friendship relationships creates a society that emphasizes the spirit of “teamwork,” and the interest of the whole group. The comment that “in the Confucians' human-centered philosophy, man cannot exist alone; all actions must be in a form of interaction between man and man” (as cited in Kim and Park, 2000, p. 233) describes exactly how each person should behave and care for others in Confucian society. Under such a structure, Confucian societies present a collective consciousness that is opposite to the individual consciousness prevalent in western societies.

When Confucius talks about people he doesn't discuss them as individuals but as members of families, rating them good or bad depending on how well they help their team. By contrast, when the West talks philosophy, it talks about people as individuals - sometimes

almost as if they had no family ties. (Leonard, n.d., Section 5)

However, collective consciousness may lead to structural bias – we only see a person's role rather than his or her subjectivity (as cited in Liu, 2013, p. 31). The passage above shows that social and familial cohesion is given higher value than individual freedom and development. Everyone is required to be in one's position as father, son, emperor, minister, husband, wife or friend, with regulations existing to sustain order and harmony in society (Liu, 2013, p. 32).

Among all the relationships, the relationship between father and son is most important given that the family's legacy is continued through this relationship. That is to say, a father was considered to control and dominate a family's property (including money, land, and family members), and left this right to his son after he died, the son thus becoming a father in continuation of this circle. Hence, the Chinese especially valued the concept of *xiao* (filial piety) - the responsibility to care for, respect, and obey one's parents. The importance of *xiao* reveals the different perspectives of viewing life in the East and the West: unlike the way that Christians depict the Creator existing outside the human world, when Confucianism thinks of the origin of life, it considers the aspects of human beings to understand one's life as a continuance of one's parent (as cited in Liu, 2013, p. 32). "The body, hair, and skin, all have been received from the parents, and so one doesn't dare damage them - that is the beginning of *xiao*" (Feng, 2007, p. 2). As the traditional Chinese society was extended from single families, *xiao* was not just a principle within the family, but was also extended to the society outside of family as a moral basis (Liu, 2013, p. 33). Therefore, to be unfilial was regarded as a sin. While the core function of *xiao* is to maintain the family system, the worst way to be unfilial was not producing offspring, because this means the discontinuity of lives, which could lead a family to its end.

As the five relationships all centered on the different roles of men, it is clear that Confucian society was constructed and preserved by patriarchy. Under such circumstances, women were placed in affiliated positions. An ideal girl was expected to follow the three obediences and four virtues: "obeying the authority of her father when young, her husband when married, and her sons when widowed; And behaving in total compliance with the rules, speaking properly, knowing her place, and performing her domestic duties" (Ember and Ember, 2004, p. 365). This expectation implied that a woman belonged to her father's family during her childhood, and that

after she grew up, she must enter marriage and give birth to a son in order to be secure. By doing so, she could thus own properties from her husband/son's family. For a woman in Confucian society, marriage was the most important event in her life and even the only way she could survive; it transformed a young girl into a mature woman and gave her a place in her family and society. Today, after hundreds of years of inheritance, the notions of individuals, family and reproduction remain closely tied together in a patriarchal society.

4.2. Misogyny in Japan

In Japan, since Confucianism became Tokugawa shogunate's official philosophy in the Edo period in the 17th century, its social order and norms were applied as principles to sustain the society's stability after a long period of inner conflict. Due to the patriarchy system promoted by Confucianism, the male and female relationship began to change completely; respect for men over women has remained a part of Japanese culture (Davies, 2002, p. 62). Although Japan absorbed new ideas from the West eagerly during the Meiji era, including the idea that women had the right to have an education, what women had been taught was how to be *ryōsaikenbo* - a good wife and wise mother. Education at the time was mainly focused on a woman's role in the household in supporting her husband and bringing up her children with a good education. It was only after World War II that women and men had equal rights in law, and not until 1986 that the Equal Employment Opportunity Law in Japan was enacted with the goal of abolishing employment discrimination against women (Davies, 2002, p. 62).

However, this does not mean that women and men enjoy equal status in Japanese society. According to a 2016 survey⁵ from the Gender Equality Bureau Cabinet Office in Japan, up to 70.4 percent of interviewees thought males were treated better than females when it came to social attitudes and general customs; 21.8 percent felt both genders were treated equally; and only 3.2 percent believed women were favored over men. The same survey also showed 40.6 percent of interviewees agreed with the idea of "men outside and women inside," while 54.3 percent disagreed. These data reveal males are deemed superior to females in Japanese

⁵ The survey was carried out on 5,000 Japanese citizens aged over 18 years-old, and 3,059 responses were returned as valid. Retrieved from <http://survey.gov-online.go.jp/h28/h28-danjo/gairyaku.pdf>

society, and the idea of “men outside and women inside” is still accepted by more than a few people in modern Japanese society. It is common for husbands to make important decisions in the family, rather than first discussing with their wives to reach a consensus. A woman’s performance relates to her management of the family, such as in child care, maintaining the household, and administrating property; while the husband’s role is to go out to work to support the family financially. When the husband is at home, he acts as a *sodai gomi* (large-sized garbage), as if there is nothing that he can do to help (Davies, 2002, p. 67). Japanese feminist Chizuko Ueno identifies this phenomenon as misogyny, claiming it to be widespread in Japanese society, manifested as the objectifying and othering of women to emphasize men’s subjectivity. People thus do not regard women as complete individuals like men, discriminating against and disdaining women (Ueno, 2010, p. 21).

From birth, a girl is raised to be girly in her childhood and is expected to be a good wife and wise mother in the future. For example, girls are encouraged to stay at home quietly instead of going out to play, mothers dress daughters in pink with lace blouses, and daughters are cultivated to be good at cooking, sewing or knitting and are not encouraged or even allowed to engage in sports. Despite the Equal Employment Opportunity Law in Japan, real equality has not yet been achieved. After female graduates enter a working place, most of them can only be employed as “office lady,” and do low-paid and simple chores such as making and serving tea, making copies, and data input (Shoji, 2002). The goal of working in a company for them is not to climb to a higher position, but to find an ideal husband and be a *kotobuki taisha* – an office lady who gloriously retreat from the workplace to get married (Shoji, 2002).

The deeply rooted traditional gender stereotype and the women hostile working environment in Japan influence this phenomenon. Many Japanese companies usually have two occupation tracks: *sōgōshoku* (managerial) and *ippanshoku* (general clerical). The former usually involves promotion and the possibility of reaching management positions, while the latter consists of assistant jobs with limited promotion opportunities. A survey carried out in 2012 showed more than 80 percent of employees in the *sōgōshoku* track were male in 72 percent of corporations; while more than 80 percent of employees in the *ippanshoku* track were female in 52 percent of enterprises (Akira, 2015). Such gender-determined recruitment tracks make Japan “the only developed country where this kind of loophole is openly in use” (Akira,

2015).

As a result, a 2015 survey further indicates the backwardness of gender equality in a global comparison:

Almost 60 percent of Japanese women still quit their jobs by the time they have their first child; only 10 percent of managerial positions are currently held by women, and merely 1 percent of board directors of publicly-traded Japanese firms are women. In the Global Gender Gap Report 2015, issued by the World Economic Forum, Japan was ranked 101 out of 145 countries for gender equality; even worse, it was ranked 116th for women's representation as legislators, senior officials, and managers. (Mun, 2016, para. 3)

Under these social conditions, it is easy to imagine what kind of societal pressure exists for a woman who is around thirty years old but is still single and childless, as the biological clock of such a woman may not allow her to fulfill her social duty of getting married and giving birth to children for much longer. Suspicion and derogatory language have developed to further shame women who are unmarried and childless. *Makeinu* literally translates to “loser dog” in Japanese. This term was coined by Junko Sakai as a form of self-ridicule⁶ in her book “*Makeinu no Toboe* (The distant barking of losing dogs)” published in 2003. This book describes no matter how a woman's working capability or education is, if she does not get married and have children, she is perceived as a loser.

Living in this world, everyone has multiple roles to act. One is a member of a family, a member of economic society, a member of the country. While anybody can be a member of the country, for a woman to be a “winner dog,” the only way is through being a member of a family – getting married, having children, being a full-time housewife – to prove her value of existence. In contrast, although a “loser dog” has her original family, without the family formed by herself, she can

⁶ When writing the book “*Makeinu no Toboe*,” Junko Sakai was a 37-year-old, single and childless woman, just like the character “*Makeinu*.”

only live as a member of economic society. (Sakai and Chen, 2006)

This paragraph somehow reveals the importance of being in a group from Japanese's perspective, and the anxiety of being left alone and different from others cause great pressure on single women. Ueno further indicates that this means a woman has two types of value: one earned by herself, and one given to her by men, the latter of which is more valuable. Thus, unmarried women are "losers" because marriage is a certificate representing that a woman has been chosen by a man (Ueno, 2010, p. 159).

4.3. Homosexuality in East Asia

Not only do women suffer, but homosexuals also experience hardship under the heteronormative standards. Homosexuality in East Asia seems to contradict many of Confucian society's core values, including patriarchy, collective consciousness, obedience to authority, the importance of traditional gender roles and traditional family form (one father, one mother and children). This is because it threatens the stability of a patriarchal society that is built upon and survives through strict adherence to traditional roles, fertility, and filiality. Among all the factors, a study has shown that the expectation to pursue and maintain the so-called complete family form is the key reason why the public has a negative view of homosexuality in East Asia (Adamczyk and Cheng, 2015). Therefore, due to social pressure, many queers in East Asia can only conduct their affairs secretly. By the time they reach marriageable age, they tend to hide their sexual orientation, constrain their feelings, and sacrifice their personal interests to fulfill their duties as husband, wife, father, and mother (Peng, 2010, p. 17).

Besides Confucianism, Christianity also affects the public perception of homosexuality in East Asia, and indeed is most outspoken on the issue. Based on specific passages written in the Bible, Christianity's opposition is robust and evident. For example, the Christian community tends to be vocal in its protest at many activities in support of same-sex rights in Taiwan. Compared to Christianity's strong condemnation, Confucianism's opposition to homosexuality is more obscure, subtle and implicit due to its pursuit of harmonious relationships, even if they are merely superficial. Wah-Shan Chou, a renowned queer studies scholar in Hong Kong, suggests the Confucian approach to homosexuality to be "tolerant and [to] avoid talking about the issue but not accept them openly (as cited in Liu, Parry and Ding,

2007, p. 3). Under such a fake harmony, queers in East Asia have to encounter a more obscure and nuanced discrimination and exclusion (Liu, 2013, p. 28).

Nevertheless, as an economy grows, the education and democratic awareness of a people rise, and society tends to become more open to allowing or even accepting the existence of multiple perspectives on gender and gay issues. The most likely first Asian country to legalize gay marriage – Taiwan – is an example of this phenomenon. Taiwan experienced an economic boom in 1970, the abrogation of martial law and the allowance of free speech, marching, and protest after 1987, and the first direct election of the president in 1996. These processes have made discussion on homosexual issues in Taiwan more open. In 1990, the first lesbian league “Among Us” appeared. Since then, many leagues harboring various purposes such as networking, social movement promotion, and publishing have sprung up like mushrooms. In 2003, the first gay parade in Taiwan, and also the first in the Chinese-speaking world - “Taiwan LGBT Pride” - was held. It is now the biggest gay parade in East Asia, attracting more than 80,000 participants in 2016 (Smith, 2016). Nowadays, nine cities and counties have allowed homosexuals to register partnership, yet same-sex marriage has not yet been legalized. However, after a proposal to legalize same-sex marriage failed in 2003, the first draft of a bill to legalize gay marriage was passed by Taiwan’s parliament in 2016 thirteen years later. In May 2017, the constitutional court ruled that same-sex couples have the right to marry legally (Chow, 2017), which essentially confirms Taiwan as the first Asian country to allow gay couples to legally marry.

It seems that the society in Taiwan should be officially open for the discussion of homosexuality; however, it does not mean there will be no discrimination and exclusion against queers by the time they are allowed to marry legally. Those discrimination and exclusion would still exist but perhaps become even more obscure and nuanced. Like the situation of women in work places, even though the Equal Employment Opportunity Law has been enacted for thirty years, the society still not encourages women to involve in their careers. As a result, having introduced the influence of Confucianism on family relationships, and the respective conditions faced by women and homosexuals in East Asian countries, the following sections interpret how the artworks argue to the traditional familial value and suggest new possibilities to it.

4.4. Can technology change women's destiny? – "I Wanna Deliver a Dolphin"

Being a single and childless Japanese woman of marriageable age, Ai Hasegawa understands the dilemma of women around the same age (Figure 4.1). Some women have satisfying jobs, enjoy being single and are afraid of being trapped in a traditional marriage, but as the people around them start to get married and have children one by one, their relatives urge them to find a man to marry or else be lonely and desperate. Are such women likely to remain single or find a man to marry? Some young married couples want to have children, but for financial reasons and a perception of the burden associated with giving children promising lives, they hesitate to have babies. But how long can they postpone? Some women are lesbians who would like to have children but are not sure whether they can love their adoptive children as much as they could their biological children. If such women also experience serious menstrual pain, they might consider not using their reproductive organs to be wasteful. So, what options do they have? Would a woman consider delivering a non-human endangered species? Using the reproduction procedure already described in the previous chapter, this would be a way to contribute a woman's natural ability to solving a global ecological crisis without needing to find a male partner and without the responsibility of raising children.

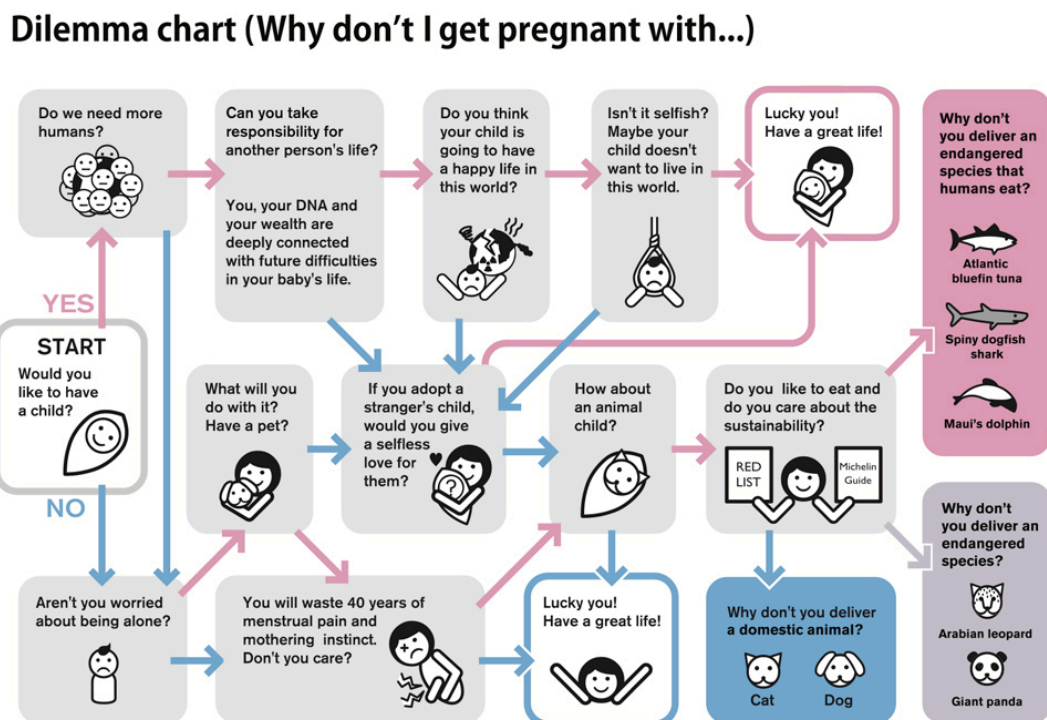


Figure 4.1: Ai Hasegawa, Dilemma Chart of “I Wanna Deliver a Dolphin,” 2013. Source:

<http://aihasegawa.info/?works=i-wanna-deliver-a-dolphin>

Continuing the surrogacy issue that “I Wanna Deliver a Dolphin” raises in the previous chapter, how can the challenge of surrogacy to the naturalness of motherhood be seen from a feminist perspective? While it is widely believed that motherhood is something women are born with (for example all surrogate interviewees I mention in the previous chapter have no doubt that it is the nature of a mother to care for her babies), this assumption leads to a universal biological sexual division of labor – “relegating women into caring roles at home and reproductive work while men dominate the public sphere of the market and politics... so that it seemed plausible to divide social worlds into dichotomous domains of public/private; production/reproduction and work/home” (Dow & Boydell, 2015, p. 5).

As long as a mother is not paid to do reproductive work, caring work or other kinds of domestic work, housework will not be considered significant enough to be compared to seriously paid jobs. Being obliged to do housework results in the subordinate status of women within families. Delphy points out:

All contemporary “developed” societies . . . depend on the unpaid labour of women for domestic services and child-rearing. These services are furnished within the framework of a particular relationship to an individual (the husband). They are excluded from the realm of exchange (i.e., these services are not treated like the jobs people do for money outside their own home) and consequently have no value. They are unpaid. Whatever women receive in return is independent of the work which they perform because it is not handed out in exchange for that work (i.e., as a wage to which their work entitles them), but rather as a gift. The husband's only obligation, which is obviously in his own interest, is to provide for his wife's basic needs, in other words, he maintains her labour power. (as cited in Tyson, 2006, p. 98)

Even nowadays, many married women with families and full-time jobs are still heavily loaded with housework, because the housework performed by women has been taken for granted for so long.

However, feminists argue that a woman's motherhood is socially constructed.

While “sex” refers to biological constitution as female or male, “gender” refers to our cultural programming as feminine or masculine. Beauvoir denies that women are born with a maternal instinct; it is patriarchy telling them that to be complete women they need to be in a family, have children and take good care of children (Tyson, 2006, p. 96). Brannon supports this argument: “Research on gender differences in responsiveness to babies has shown differences in self-reports, but not in physiological measures, of responses to babies” (as cited in Tyson, 2006, p. 110). Thus, “girls and women show more responsiveness to babies because they believe they should, and . . . boys and men show less responsiveness for the same reasons” (as cited in Tyson, 2006, p. 110).

In fact, Brannon further points out, “research indicates that . . . the concept of maternal instinct has no support as a biologically based explanation for caregiving, and both men and women have similar emotions related to nurturing” (as cited in Tyson, 2006, p. 110). While women report that they experience both a great deal of pleasure and a great deal of irritation taking care of kids, men who spend time caring for children often report similar responses (as cited in Tyson, 2006, p. 110). That is to say, both women and men can be good caregivers to children and greatly enjoy the role. Hence, the link between “nurturing” and women is not solely due to biological reasons but is strongly influenced by social factors. In this sense, if we link these feminist theories to the situation of Japan, we would understand how dominant the patriarchy is in Japan, and how serious that Japanese women are still trapped in the traditional gender roles.

As being the surrogate mother of an endangered dolphin separates female reproduction from caregiving of children, it disconnects the direct link between female reproduction and a woman’s maternal instinct. Furthermore, being a surrogate can be a paid job and even contribute significantly to solving the ecological crisis (thus payment would probably be high). Would this change the assumption that housework is unimportant and unworthy compared with regular paid jobs? Would this shatter the dichotomous domains of public/private, production/reproduction, and work/home in the social world? Would this change a mother’s role in the family from being the main caregiver to being one of the caregivers? Would this alter the deeply-rooted tradition of “men outside and women inside” in Japan?

Like other pregnant women, a woman who decides to carry an animal fetus

inside her womb stops menstruating. There is medication to stop menstruation; however, unpleasant side effects can make women suffer for months. Therefore, Hasegawa suggests that the ideal carrier profile would be a rich, single, and, above all, menopausal woman (Roy, 2012). Would this free women from the anxiety associated with a deadline on pregnancy?

As egg freezing can also prolong a woman's biological clock, it has been described as a feminist "game changer" (as cited in Cattapan, Hammond, Haw, & Tarasoff, 2014, p. 238) that will enable women to overcome physical limitations to "have it all" (as cited in Cattapan, Hammond, Haw, & Tarasoff, 2014, p. 238). However, while women may be freed from biological limitations, some young feminist scholars are concerned "that the existence of the technology generates a moral imperative to engage in social egg freezing ('just in case') in order to be able to fulfill that responsibility" (Cattapan, Hammond, Haw, & Tarasoff, 2014, p. 239). That is to say, rather than free a woman from anxiety, this technology may reinforce a woman's responsibility to have children. If a woman has the option to freeze her eggs, then she should do so; if she refuses, then she is responsible for even more severe moral condemnation or any negative consequences that occur due to her choice. Is it possible that having more options could instead create even more prolonged pressure on women, who are considered solely responsible for their fertility? It seems to me that the most important consideration is not the number of years during which a woman can become pregnant, but instead how to free women from being reproductive tools and return bodily autonomy to them.

4.5. The possibility of same-sex parenthood – "(Im)possible Baby"

Having discussed possible technology to address female issues, let us move on to queer issues. Focusing on the gradually increasing trend toward the legalization of same-sex marriage, "(Im)possible Baby" raises the following question: as the homosexual community now has the legal right to marry in more than twenty-five countries, what represents the next milestone for them? What if technology were to allow same-sex couples to "create" their biological children? Would they have the right to conceive offspring? According to scientific facts, scientists in the Laboratory of Developmental Biology, Tokyo University of Agriculture successfully created a mouse "Kaguya" from two female mice by turning an egg cell into a surrogate sperm in 2004 (Rincon, 2004). Ten years later, a Japanese research team created primordial

germ cells (PGCs) that can develop into both sperm and egg from the skin cells of mice (Cyranoski, 2013). Recently, in 2016, scientists in Spain successfully created human sperm from skin cells, but the sperm still needed “a further maturation phase to become a gamete” (Agence France-Presse, 2016). Although the sperm did not have the ability to fertilize, the hope of same-sex couples that they will be able to have their own biological children is likely to be fulfilled quickly given the pace at which developments are occurring.

Comparing the egg freezing policies of the United Kingdom and Japan, Hasegawa found that Japanese single females were allowed to have this procedure performed from fall 2013, a significant time after women in the UK. While women in London can even donate surplus eggs to be frozen at no charge, Hasegawa did not find such an offer in Japan. Curious about who was behind decisions related to egg freezing policy in Japan, Hasegawa found that the Japan Society for Reproductive Medicine Ethics Committee were decision makers in this case. This Committee is an assembly of twelve authorities, made up by eight male doctors and four external researchers (a lawyer, a cultural anthropologist, an ethicist, and one female, a sociologist) (Hasegawa, 2016, p. 8). In other words, along with eleven males who will never use the technology, only one female was involved in determining policy on such a significant female issue. Moreover, when the committee conducted a public comments report, the process of collecting public comments lasted only seventeen days and only twenty people participated. Of those participants, eight at most were potential user females from a non-science background. Hasegawa thus considered the case of minorities in asking: “who can make a fair decision, and how?” (Hasegawa, 2016, p. 8) Answering this question became the fundamental purpose of her project. She then decided to create the likely children of a legally married same-sex couple using their genes, and to document the process, results and couple’s reflections for the public to debate.

Hasegawa first used 23andMe – a saliva-based direct-to-consumer personal genome test – to analyze the DNA data of a lesbian couple. Her case no. 1 pair was composed of one Japanese woman named Asako and one French woman named Moriga. Her choice of a mixed race couple was to emphasize the visual effect of the diversity of genotypes in their hypothetical children. Then, by uploading the individual 23andMe .txt files of the two women through a simulator, the most interesting genotypes for the babies were matched, and the result was exported into

SNPs files. Based on the generated data, Hasegawa visualized the intended children through 3D modeling with the assistance of SNPedia, in order to construct their facial portraits. In the end, the lesbian couple’s two hypothetical daughters Mameko (meaning “little bean” in Japanese) and Powako (“Powa” coming from “bean” in French) were born in a photo set of fictional future family scenes.

The photo album features a photo of each daughter’s face and four future family photos. The pictures of the faces show the facial, skin and hair details (Figure 4.2 and Figure 4.3). Mameko and Powako have the same distance between their eyes, the same distance between center of eye and nasion, and the same bizygomatic distance as both of their parents. While the distance between R-eye and pronasale, and distance between center of R-eye and pronasale of Mameko is similar to Asako’s; Powako’s is like Moriga’s. Mameko has dry earwax, no body odor, and likely Asian ancestry; Powako, on the other hand, has wet earwax and a slightly better body odor.

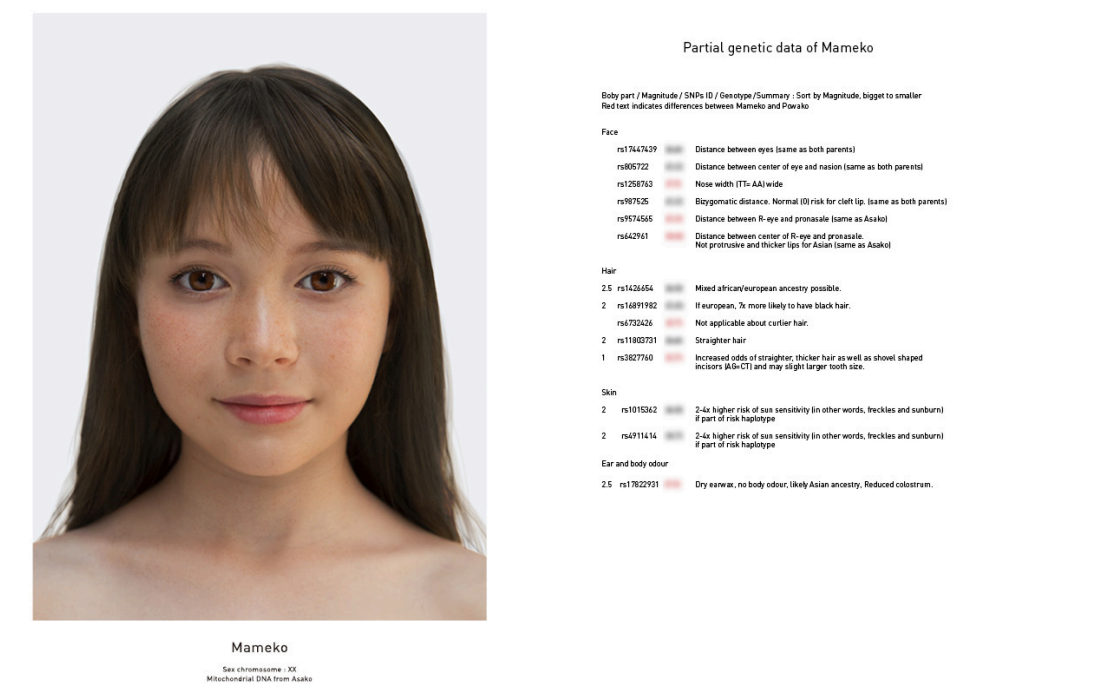


Figure 4.2: Ai Hasegawa, “(Im)possible Baby, Case 01: Asako & Moriga,” 2015. Mameko face photo and partial genetic data. Source: <http://aihasegawa.info/?works=impossible-baby-case-01-asako-moriga>

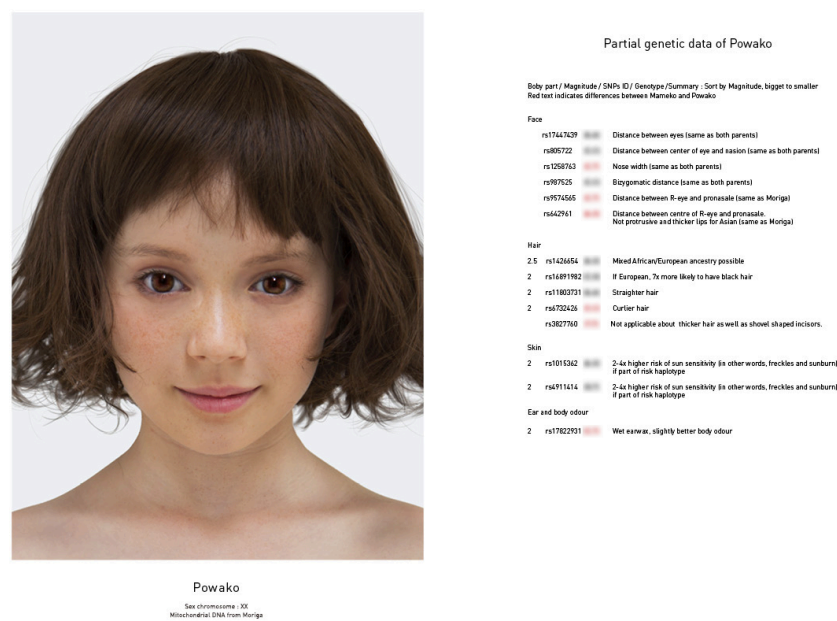


Figure 4.3: Ai Hasegawa, “(Im)possible Baby, Case 01: Asako & Moriga,” 2015. Powako face photo and partial genetic data. Source: <http://aihasegawa.info/?works=impossible-baby-case-01-asako-moriga>

Three of the family photos present three different features of the daughters: the breakfast scene shows their diet and food preferences, the tag scene shows their physicalities, the 10th birthday party scene shows their personalities and behavior. In the breakfast scene (Figure 4.4), Mameko is shown sniffing a coriander leaf with a disgusted expression. Her gesture is due to her genotype “rs72921001 (C;C),” which is more likely to make her think that coriander tastes like soap (Hasegawa, 2015). Powako is eating asparagus with a look of anticipation. This implies her excitement at smelling asparagus metabolites in her urine afterward, because she has been told that she can smell it like Asako does due to her genotype “rs4481887 (A;G)” (Hasegawa, 2015).



Figure 4.4: Ai Hasegawa, “(Im)possible Baby, Case 01: Asako & Moriga,” Breakfast Scene, 2015.

Source: <http://aihasegawa.info/?works=impossible-baby-case-01-asako-moriga>

The tag scene (Figure 4.5) shows physicality related genotypes, such as muscle type, height, weight and breast size. Mameko and Powako both have an average height, a lower likelihood of weight, a mix of muscle types (they are likely sprinters), and a bigger breast size. The 10th birthday party scene (Figure 4.6) presents Mameko and Powako’s personalities and behaviors. With their optimistic and empathetic genotype, the photo displays two girls celebrating with their parents happily.



Figure 4.5: Ai Hasegawa, “(Im)possible Baby, Case 01: Asako & Moriga,” Tag Scene, 2015 Source: <http://aihasegawa.info/?works=impossible-baby-case-01-asako-moriga>



Figure 4.6: Ai Hasegawa, “(Im)possible Baby, Case 01: Asako & Moriga,” 10th Birthday Party Scene, 2015. Source: <http://aihasegawa.info/?works=impossible-baby-case-01-asako-moriga>

Why does Hasegawa want to visualize Mameko and Powako in such a detailed and precise way? What do these photos mean to the lesbian couple Asako and Moriga? How does the public feel about these pictures? For Asako, seeing her

children, even just in photos, fulfilled the dream of being a mother that she has had since she was little. “When I saw that picture at the birthday party, it was an incredible reminder that I had also been raised year-by-year and celebrated each year. ... Even if it wasn’t actually real, I got a little taste of what it means to raise another person” (Hasegawa, 2016, p. 39). Nevertheless, does “getting a little taste of what it means to raise another person” equal to raising children in reality? The photos of happy parents together with their lovely kids in their cozy home somehow look more like the photos in IKEA catalog than real family photos, which are too ideal to fit in everyday normal lives. As what inside the photos are artificial children in artificial scenes, the combination creates an uncanniness that questions what kind of family is ideal. After thinking through this issue and the experience of meeting their hypothetical biological children, the couple would think whether they want to have children or not, and what consequences may occur. Such consideration from the same-sex couple would become valuable material for future debate on fertility related issues.

As for the public, these photos provide very authentic and strong visual images that can be used to imagine what it would be like for same-sex couples to have biological children. The public can see that if technology could allow them to have blood-related children, gay families would not be much different from heterosexual families. The images thus provoke thinking on the most necessary element of a family – is it parents who give love, or physically bonded parents? “I Wanna Deliver a Dolphin” shows us that even if a dolphin is born from a woman’s womb, love from its carrier is not guaranteed; the pure data generated children in “(Im)possible Baby” probably gain more love from their parents. Although the children are not natural born, the love between them is likely to be real. Thus how can we define “family” in the future?

It is interesting to note that the photo of all four family members wearing white sleeveless dresses standing in front of lily flowers was made by Hasegawa as a reference to the story of the Annunciation of the Virgin Mary. Lily flowers appearing in paintings are often regarded as a symbol of purity, innocence, and parthenogenesis. This image “questions the meaning of religion and innocence, and poetically invites viewers to imagine how future biotechnologies could change our traditional perception of this world” (Hasegawa, 2016, p. 36). This photo suggests that emerging technology might have the capacity to make virgin birth possible.



Figure 4.7: Ai Hasegawa, “(Im)possible Baby, Case 01: Asako & Moriga,” *The annunciation* 2015, 2015. Source: <http://aihasegawa.info/?works=impossible-baby-case-01-asako-moriga>

Nevertheless, even in light of Kaguya’s birth from two female mice, some scientists still claim that mammalian parthenogenesis is impossible in the real world. Denial of mammalian parthenogenesis even came from the Kaguya experiment team itself. While dozens of media outlets reported the news using headlines and sentences such as “The Mouse that Roared: Virgin Birth,” “The Obsolescence of Men,” “‘Here’ a new scientific theory: men really are useless,” and “Men, your gender just took a hit in the animal kingdom” (as cited in Gillis-Buck, 2016, p. 10). Tomohiro Kono, one of the leading scientists behind the Kaguya experiment, argued that Kaguya’s birth actually demonstrated “how and why males are required for mammalian reproduction” (Gillis-Buck, 2016, p. 2), and that the Kaguya experiment was “simply an effort to better understand an epigenetic process called genomic imprinting and why the maternal and the paternal genome are both necessary for complete mammalian development” (Gillis-Buck, 2016, p. 2).

Eva Gillis-Buck, who found that a mouse without a father could prove the must of males contradictory, has analyzed several explanations that the science field has used to deny the birth of Kaguya as parthenogenesis or a virgin birth. Eva Gillis-Buck (2016) argues that although scientists claim the paternal genome as necessary to naturalize the ideal nuclear family composed of one heterosexual male father and one

heterosexual female mother with their biological children, the use of artificial processes does not make the results less real. When scientists describe eggs as sperm-like or mimicking a paternal contribution to suggest that one of the two-mother parents should be masculine or father like, that mother actually could be considered a “new sex characteristic” (p. 21) that does not fit into a simple male-female two-sex system. When scientists describe maternity or paternity as something independent of gamete sex, they undermine the stereotype of female with maternal and male with paternal. “When scientists describe all female reproduction as not virginal, they challenge the necessity of males for sexual intercourse” (p. 26). By analyzing the Kaguya experiment, Gillis-Buck overthrows the patriarchal arguments behind scientific fact and provides alternative interpretations of sex and parenthood.

Based on Gillis-Buck’s interpretation of Kaguya’s birth, “(Im)possible Baby” further extends Kaguya’s case to human beings. By creating and visualizing data children, this project questions the natural process of pregnancy, and asks whether the results can be real even though the process is artificial? This project challenges Confucianism’s core patriarchal system that exists in almost all domains of society (such as in the science field and the egg freezing decision community in Japan) by excluding the necessity of males in sexual intercourse and further suggesting an unconventional family form without a dad. Finally, this project interprets the idea of the virgin birth in Christianity with queer color. This is a strong challenge to Christian hegemony as Christian believers are the biggest opponents to homosexuality.

Aside from being an artwork, “(Im)possible Baby” has functioned to provoke further debates by approaching wider audiences. After Asako and Moriga decided to participate, their reason for participation, anticipation of the photo album, and feedback on the results, along with the whole process of analyzing the DNA and designing the photo album, were all recorded and edited into a 30-minute documentary film. This project also includes interviews with a married lesbian couple, transgender people (both male-to-female and female-to-male), scientists (including Professor Tomohiro Kono), and a law expert sharing their views on bioethics. The documentary film was broadcast on NHK Japan three times in October 2015, and later was subtitled and released online, making it available to international

audiences.⁷

It is important to gather feedback on what different kinds of audiences think of the project, rather than just audiences who go to museums to see art. In the project “(Im)possible Baby,” the Twitter # tag was shown in the documentary film when it was broadcast on October 5th, 12th and 21st, on NHK Japan. 953 tweets from 657 people were collected, and reflection keywords were analyzed into positive, negative and neutral categories. Interesting questions that arose from the audience were also listed in the report. As keywords can only be roughly analyzed and interesting questions were merely listed without further discussion, the social impact of this project is difficult to evaluate. Nevertheless, this deficiency may direct a future way for speculative design. After first finding a problem and constructing a scenario that can communicate with the public well, “guiding a meaningful discussion and designing a system that collects and reflects from the input of the audience” (Hasegawa, 2016, p. 51) might be the next step for speculative design.

In this case, how to collect useful data and analyze it effectively will become increasingly important. I assume that a speculative design project would involve more people from various backgrounds, such as those who can design the system for data collection and analysis. Once the feedback collection from publics is added, the process of carrying on a project would be longer, but how long should the impact to be tracked is another problem. In addition, if the artwork does make an impact, the question becomes what next step should be taken. Do speculative designers aim to really make change beyond mere influence? How can they do so? Is that the role of an artist to take? Such questions are part of another level of discussion.

4.6. Revealing the unspoken taboo – “The Fellatio Modification Project”

In the previous chapter, I discuss “The Fellatio Modification Project” in the medical context. Here, I seek to better understand this project in the context of gender and sexuality. It is clear that the promotion of non-reproductive sex in both “Male Masturbation Cup Mouth” and “Bird Beak Clone” contradicts the traditional gender roles of Confucian society. Being a gay man does not fit into Confucianism: a gay man would traditionally not be considered a father, so nor could he be a qualified son, because not producing offspring to maintain the family chain is the most unfilial

⁷ The documentary film of “(Im)possible Baby.” <http://www.nhk.or.jp/hearttv-blog/700/237751.html>

behavior of a son. He also cannot be a husband, because society has not yet legitimated his role as one. This situation amounts to colonialization: a gay man's psychic choice can only be to "turn straight or disappear." Bhabha thinks there is a third space for the colonized, but then where is the third space for people who do not fit the male-female dichotomy? While not fitting into existing social roles makes queers "homeless," does queerness itself actually create an extra place outside the social structure? The focus on non-reproductive sexual pleasure in this art project emphasizes individual subjectivity and choice rather than the sacrifice of one's interests. By doing so, it breaks through the structural bias in Confucian society and creates an undefinable place for queers.

Furthermore, "The Fellatio Modification Project" not only suggests the rights that homosexuals can pursue, it turns rights from being secret and underground to physically demonstrated. In "Male Masturbation Cup Mouth," the way of pursuing sexual pleasure is not merely to put a modified retainer inside one's mouth. In fact, its ultimate phase is to surgically implant real human tissue onto the upper palate of the patient to transform the human mouth into a permanent male masturbation cup. Moreover, if the man who has had surgery on his upper palate does not open his mouth, no one could tell his sexual preferences from his appearance. However, if a man takes the oral capacity prolongation surgery suggested in "Bird Beak Clone," his mouth would look like a bird beak, directly showing his sexual preferences.

The title "Bird Beak Clone" is inspired by two ideas. "Bird beak" refers to the appearance of people who have had surgery, while "clone" implies the gay subculture "Castro Clone" – a phenomenon of Castro Street, San Francisco in the 1970s when gay men physically demonstrated themselves to be idealized working-class men in order to prove their ideal masculinity, thus enhancing their sexual glamour. Therefore the bird beak becomes the symbol of pursuing oral sex pleasure, and a demonstration of the right to be non-reproductive. Based on the concept of the bird beak clone, the project has collaborated with a novelist and a cartoonist. A novel and short comic series were released in Taiwan in 2016 to extend and fictionalize the possibility of the bird beak clone becoming real in the future. By demonstrating the sexual orientation of gay men directly and physically, this project transcends the superficial harmony that hides unspoken discrimination toward homosexuals in Confucian society, and allows their subjectivities to confidently come out of the closet.

4.7. Summary

This chapter describes how Confucianism has traditionally viewed family as the root of society. Well-behaved families were considered the foundation of a stable society, and the way to maintain a family well was for each family member to fulfill his or her assigned duties. Confucianism regarded filial piety as the most important virtue for a son or daughter to perform, such that producing offspring was the necessary responsibility of each son or daughter. Under such conditions, it is easy to imagine the kind of anxiety and pressure that single women of marriageable age and queers might suffer.

Nevertheless, it is owing to this particular background that artworks have value in challenging existing norms. “I Wanna Deliver a Dolphin” demonstrates that maternity is not necessarily related to a mother, suggesting that a female body is not just for producing offspring and that a woman’s worth is not only tied to being a mother. Instead, it proposes that women should also experience the bodily autonomy and freedom to choose the lives they want. By visualizing the future scenarios of a lesbian couple and their hypothetical biological daughters in detail, “(Im)possible Baby” challenges the necessity of males in sexual reproduction and in the family, and further questions how we can define an ideal family. By dramatically transforming the human mouth to show queer identity, “The Fellatio Modification Project” asks whether pursuing non-reproductive sex can finally be free from taboo.

While both “(Im)possible Baby” and “The Fellatio Modification Project” attempt to enhance their artworks’ influence to provoke debate more effectively, how to collect feedback from the public and guide the public toward meaningful discussions should be the next important step for speculative design.

Chapter 5 Results

This chapter summarizes the previous chapters and answers the research questions of the paper. In order to clearly answer the research questions, results are summed up in four categories, namely topic, cultural context, approach, and format, in line with the research questions.

5.1. Topic

In terms of topic, the artworks are categorized into three main subjects: medical science, human and non-human animals relationships, and family relationships. Under each topic, a different critical framework was used to analyze the artworks. In chapter two, I use the theory of medical science acting as a form of social control, and the history of western medicine as a means of imperial dominance. Using evidence of the decline of Chinese medicine owing to the introduction of western medicine, I describe the relationship between medical science and cultural hegemony. In chapter three, I illustrate the change of viewing animals in the West from ancient Greece to the present, comparing views from Buddhism, Confucianism, and Daoism to demonstrate the different treatment of animal in East Asia. In chapter four, I present Confucianism's influence on family relationships and how social constraints have affected the status of women and homosexual people in the family.

Under each broad topic, the artworks further address elements of each topic in more detail. “(Hidden) Skin Interface,” “Smallpox Syndrome,” and “Tame is to Tame” are all related to Chinese medicine. While “(Hidden) Skin Interface” imagines the scientifically unproven meridian system being visible, “Smallpox Syndrome” and “Tame is to Tame” demonstrate the holistic concept of Chinese medicine. Unlike the other works in chapter two that deal with Chinese medicine, “The Fellatio Modification Project” is based on dentistry, but explores the sexual function of the mouth that is undiscussed in textbooks on dentistry. In addition, the oral sexual pleasure among gay men promoted by “The Fellatio Modification Project” touches on the issue of queerness in the traditional family and a man's duty of continuing the family line. Also addressing queer and reproductive issues, “(Im)possible Baby” brings up the idea of same-sex parenthood as an ideal family form to imagine the possibility of same-sex couples having biological children. Beyond having human

babies, “I Wanna Deliver a Dolphin” proposes human beings delivering endangered species to discuss the naturalness of women being caregiver and the meaning of fertility for women, as well as the boundaries between humans and non-humans. Lastly, “Pet’s Pettings” forwards the idea of pets’ sexual rights being equal to those of humans, but ends up questioning how people can really know whether pets actually need sexual rights. Both animal-themed artworks furthermore reveal the complexity and contradiction between human and non-human species.

These topics are not separate from each other, but instead are interrelated. Some of the artworks cross more than one topic, such as “The Fellatio Modification Project,” which crosses the subjects of medical science and familial relationships. Similarly, “I Wanna Deliver a Dolphin” analyzes the relationships between human and non-human species, and between the individual and family members. Although I did not discuss “I Wanna Deliver a Dolphin” and “(Im)possible Baby” under the framework of medical science and cultural hegemony, the issue of female reproductivity addressed in these two works is related to medical science and feminism, namely the emerging medical technologies (mainly surrogate and mammalian parthenogenesis) provide the possibility to free women from traditional value of family and social responsibility of having children, and further suggest an alternative family form that is without males. Medical science is not exclusive to humans, as the pet ligation addressed in “Pet’s Pettings” suggests. Also, the new way of treating viruses proposed in “Tame is to Tame” is derived from the Eastern way of viewing non-human species. To sum up, most of these artworks show an interest in the development of medical related technology, and how such emerging technology can transform the human body to bring about social change. Moreover, these artworks tend to address the issues of cultural hegemony, gender and sex that extend from medical science.

5.2. Cultural context

After analyzing the big topics of medical science, non-human animals, and family in detail by comparing the East and the West or simply focusing on the East, different views derived from cultural context can be found. In the second chapter, the main difference between Chinese medicine and western medicine is pointed out: Chinese medicine seeks to treat the body as a whole, which includes the soul or spirit, while western medicine separates different parts of the body as distinct. Western

medicine regards the invasion of bacteria, rogue cells, and genetic disorders as causing disease, suggesting that people should extinguish such invaders to keep the body healthy. Chinese medicine, on the other hand, believes disease to be a kind of imbalance in the body's functions, suggesting that people should enhance their immune system. The distinctness of the Chinese point of view is expressed clearly in Pei-Ying Lin's art piece, "Smallpox Syndrome," which designs a futuristic Asian company that monitors emerging infectious diseases to produce vaccines before any outbreak. "Tame is to Tame" also raises the idea of living and evolving with viruses by taming them like one does a wild animal rather than wiping them out.

The third chapter reveals that while westerners distinguished between human and non-human animals before the theory of evolution, East Asians did not strongly emphasize a distinction between humans and non-humans. While mainstream thought in the West suggested that animals should serve people due to the superior status of humans, East Asians thought that people should respect the inherent value of animals, or at least not be cruel to them. These contrasting views, however, have become to merge in modern society. Based on its cultural context, I interpret that the reason "I Wanna Deliver a Dolphin" proposes a human mother carrying a dolphin baby is due to the boundary between humans and non-humans being blurred in the East Asian perspective. I also emphasize the attempt to think from an animal's perspective evident in "Pet's Pettings," as this piece shows the possibility that human society can be adjusted to honor the interests of animals, rather than be entirely designed for the sake of humans. As a result, both artworks present a distinct view of the animal that is different from the traditional view in the West. The artists may not realize the difference in their proposal, but they are somehow influenced by the divergence that is rooted in East Asian cultural context.

The fourth chapter describes how Confucianism has had a substantial impact on family relationships in East Asian countries. Confucianism regards the family as the basic element of society, with individuals being assigned roles to act within each family. In contrast to the individuality that is valued in the West, collective consciousness is emphasized in the East, which means placing a group's interests before an individual's interests. As a family's legacy is passed on from father to son, women's positions are subordinate in the family, and homosexuals are discriminated against due to their infertility. It is true that women and queers are discriminated against not only in East Asia, but also universally; however, the particular social

norms and economic context that characterize East Asian thought solidifies gender and family stereotypes even more, thus placing more pressure on women and queers in East Asia. I then use “I Wanna Deliver a Dolphin,” “(Im)possible Baby” and “The Fellatio Modification Project” to interpret how gender issues are addressed given such a background and how this background has motivated the creations of the artists.

The differences between Chinese medicine and western medicine originated from the distinct ways that they regard the composition of the human body; views toward animals can be interpreted as views of nature outside the human world; and family relationships are constituted by the interaction of a person with a larger group of individuals. Therefore, these three main chapters present different perspectives on one’s own body, one’s interaction with other people, and finally go beyond the human world to nature. As the perspectives present from different cultural contexts can be totally opposite in nearly every aspect, when discussing future prospect in speculative design practices, it is important to consider the differences even if addressing the same issue. Although we are in the age of globalization and ubiquitous and rapidly developing technologies, which have flattened the cultural difference within different regions in certain level, the world is not evenly distributed, the phenomenon of some cultures dominate the others still exists. Even though true equality between different cultures is difficult to achieve, I assume there is a necessity to increase the cultural diversities in speculative design.

5.3. Approach

The approaches of the works reveal the attitude of the artworks and can be analyzed according to the critical framework presented here, as well as the larger questions raised. The discussion between Chinese medicine and western medicine is actually a discussion of the oppression of cultural hegemony. The relationship between humans and non-humans also shows the domination of humans over animals. And the rules and duties within the traditional Confucian family that every family member is forced to follow most challenge women and homosexuals. Therefore, all the artworks take minority positions, in particular taking the approach of speaking out and fighting back on behalf of the oppressed. Interestingly enough, these artworks do not criticize cultural hegemony, patriarchy and heteronormative hegemony, or anthropocentrism directly, but instead hide their arguments in seemingly unrelated topics. The artists might not have aimed to tackle political issues, but they have

unconsciously left some tips for readers to interpret based on their own cultural backgrounds.

“(Hidden) Skin Interface,” “Smallpox Syndrome” and “Tame is to Tame” speculate on a world in which eastern wisdom is appreciated, and bring up questions like “can we view our bodies differently?” and “can we adopt a peaceful way of dealing with viruses?” by offering ideas of eastern possibilities to challenge the cultural hegemony of the West. “The Fellatio Modification Project” subverts the tradition of western medicine by exploring the extra function of the mouth not included in dentistry textbooks, and further applies this function to specifically serve gay men, who were once regarded as abnormal in the history of western medicine. By doing so, the art project creates a place that is outside the control of cultural and patriarchal hegemony. By mimicking human methods to liberate sexual constraints on animals, “Pet’s Pettings” ironically raises the question “can people really think from the point of view of animals?” If they cannot, then what attitude should humans have toward animals?” While “I Wanna Deliver a Dolphin” proposes a way to benefit endangered species, it reveals that “the troubled middle” is inevitable in human society. Along with “(Im)possible Baby,” these two artworks challenge the gender stereotypes that are socially constructed, and further promote the worth of women beyond that defined by patriarchal society. To sum up, these artworks start from the perspective of minorities and pursue a future that places value on culture, gender, and species.

What approach an artist chooses to take depends a lot on what kind of cultural context the artist is exposed to. While the direct link between the topic and East Asian cultural context can be found in artworks address Chinese medicine, the link with cultural context discussed in chapter four may not seem exclusive to East Asia. But as Ai Hasegawa is a loser dog woman and Kuang-Yi Ku is a gay man, the pressure and discrimination they suffered to accomplish their artworks means they can represent people who are in the same situation to truly speak their minds. Without an understanding of a woman’s anxiety and uncertainty in relation to the traditional ideal family in Japan, Hasegawa may not have attempted to create such a depiction of another possible contribution that the female reproduction system can make. Similarly, without experiencing overwhelming patriarchal control herself, she probably would not have been inspired by the two mother mice experiment. If Ku did not know the unfulfilled desires and unidentified rights of queers, he may not have

explored the taboo of sex and sought to promote pure sexual pleasure so bravely. In short, without a history of oppression, they may not have even been able to suggest different types of future that included multiple family forms and unconventional values. The specific cultural contexts of the artists acted as stimulation for their works, which have also been shown as necessary to stimulating and provoking discussions on the cultural context of East Asia.

5.4. Format

Regarding the formats of the artworks, four features are shown: the use of various materials, thorough research, technically authentic presentation, and a focus on influence. First, these artworks often required interdisciplinary collaboration. For example, “Tame is to Tame” was created under the scientific support of Miranda de Graaf from Viroscience Lab, Erasmus University Medical Center (EMC) (Bio Art & Design Award, 2016), and a choreographer and dancer to produce the conceptual dance. Through collaboration with a novelist and a cartoonist, the concept of “Bird Beak Clone” was visualized into comics and was expanded with a fictional plot into a novel. The architecture prototype and dating app prototype in “Pet’s Pettings” required working with an architect and an engineer. Secondly, most of the artworks are based on thorough research and use strong evidence in speculating on future scenarios. For example, “I Wanna Deliver a Dolphin” needed to employ adequate research to create a convincing technique and process that would support speculation. “(Im)possible Baby” was based on the scientific fact of a mouse potentially having two biological mothers in order to persuade audiences that the project documented a possible reality.

Thirdly, the artworks aim to achieve technical authenticity. “The Fellatio Modification Project” is the most obvious example of this, as the artist himself is a dentist. His background in dentistry makes the artwork convincing, and the way of presentation that resembles an experiment in a lab, along with the video of tissue culture, skull, and 3D Model Surgery, further reinforces the artwork’s authenticity, making the issue it raises a more pressing one for discussion. The same technique is also used in “I Wanna Deliver a Dolphin,” for which an anatomical section sculpture of a human womb containing a dolphin fetus, and a video of a woman giving birth to a dolphin in a swimming pool, creates an authentic enough scenario in which readers can immerse themselves for speculation. “(Im)possible Baby” also focuses on

biological realness to offer readers visual stimulations and to question the definition of the ideal family. It is worth noting that some projects include detailed background knowledge, such as the manifesto for taming viruses in “Tame is to Tame,” and the dilemma chart of women’s pregnancy choices in “I Wanna Deliver a Dolphin.” In this way, the idea that artists want to convey is clearly expressed, and its importance is further emphasized. Therefore, we can say that the idea (the problem that needs to be debated) is the crucial part of these speculative works, and that authenticity is used as a powerful aid for enhancing communication.

Finally, since discussions on culture, species, kinship, gender, and sex are important for the artists and particularly necessary for East Asia, how to enhance the influence of the artworks on public becomes extremely important. Social scientists frequently ask artists who do speculative design practices the following question: “How do you track the impact of these provocations on the audience of an exhibition and measure if you’ve changed an opinion or not?” (Coles, 2016, p. 58) Dunne and Raby resisted this question by saying that “their work contributes to a general broadening out of what they think of as possible, that alternative perspectives on everyday life are valuable in themselves” (Coles, 2016, p. 58). Their response somehow reveals that when an artwork is complete, what happens afterwards is left to evolve in the public space. However, if the aim of speculative design is to “provokes alternative thinking” (Dunne and Raby, 2013, p. 2) and to “create spaces for discussion and debate about alternative ways of being” (Dunne and Raby, 2013, p. 2), how come the feedback from audiences and the track of influences are not important enough to be addressed in speculative design practices?

Regarding this, “The Fellatio Modification Project – Bird Beak Clone” expands the artist’s personal concept by collaborating with a novelist and a cartoonist. In doing so, it shapes the queer image more vividly and reaches a wider audience, making it more likely to have influence. Hasegawa does more than this in “(Im)possible Baby,” realizing that a speculative designer could “take much more notice and reflect on these reactions, not just leave the discussions alone” (Hasegawa, 2016, p. 52). As such, “(Im)possible Baby” suggests that designing an effective feedback system and guiding a meaningful discussion is the next goal for speculative design works, which also responds to the question about impact tracking and measurement asked by social scientists. Although the effect of these works has not yet been tracked or measured in terms of whether they have changed public opinion,

these artworks at least make a start by showing the possible ways in which influence might be expanded and further direct the next step for speculative design.

Chapter 6 Conclusion

Let us recall to what Dunne and Raby state in *Speculative Everything*:

This is the bit we are interested in. Not in trying to predict the future but in using design to open up all sorts of possibilities that can be discussed, debated, and used to collectively define a preferable future for a given group of people: from companies, to cities, to societies.
(Dunne and Raby, 2013, p. 6)

Following the preceding discussion, what preferable future from an East Asian perspective is shown in the art pieces that have been analyzed? To what extent does speculative design practice in East Asia address the homogenization process referred to by Tonkinwise? I would say the topics and issues addressed by speculative design practice in East Asia may not be unique, but owing to a specific cultural and historical background, discussion of these issues has grown “local” appearances that are distinct. For example, the discussion of cultural hegemony in both “(Hidden) Skin Interface” and “Smallpox Syndrome” is apparently covered by a cultural specific topic - the Chinese medicine. Furthermore, due to coming from a cultural background that has been marginalized, oppressed and discriminated against, the artists have been motivated to use speculative design to provoke debate and try to have a positive influence on these issues. In this way, speculative design is revealed as not just an art method, but also as a means of expression for those who truly want and need to say something to make an influence.

Rather than saying these artworks discuss problems that are likely to happen in the future, these artworks actually address problems that are ongoing right now, because there remain many issues (including the issues of cultural hegemony and the decline of marginalized cultures, patriarchal hegemony, heterosexual hegemony, and anthropocentrism that have been repeatedly discussed in this paper) yet to be changed. In other words, the possibility of altering the present is the preferred future for the artists, and this future prospect is probably not the same as Dunne and Raby’s future.

Concerning Dunne and Raby’s future, Tonkinwise wrote:

‘The future is already here – it is just not evenly distributed.’ The motivating claim is that, far from being poor-in-future-vision, communities – usually the more marginalized ones – are already innovating systems for meeting their everyday needs that are quite distinct from market provisioning or government services. The job of the designers is not to come up with these visions of alternative economies, but to find social innovations, to find people in the now trying to build different kinds of future cones, and bolster and proliferate them through service design. (Tonkinwise, 2014, p. 174)

In the case of East Asia, rather than economical or material distribution, uneven distribution more contributes to the unequal distribution of power, no matter whether in terms of culture, gender or species. Such social structural problems seem harder to tackle.

So, what can artists use speculative design for? I would say that expanding and deepening social influence from the bottom up is probably how speculative design can best contribute to bringing about societal change. Therefore, focusing on its impact will gain importance and lead speculative design to the next level. As such, guiding the public to engage in meaningful debate is a good start, and is also the most prominent contribution that speculative design can make to East Asian art practices.

As speculative design is an emerging method with a short history, it is a relatively new topic to be addressed in the academic field. Furthermore, not many speculative design practices have yet been produced. Speculative design has been mostly discussed in the field of design, and discussion of speculative design in the media arts field is relatively uncommon. As this thesis focuses only on East Asian artists and their artworks, the number of artworks available for selection is even smaller. In this way, this thesis is pioneering in its exploration of a not yet fully developed field and in its attempt to make contributions to understanding on this topic. Besides the unusualness of research on this topic, the approach taken in this thesis is also rare. The approach of this paper is not confined to media arts, but also undertakes analysis based on the realm of cultural studies. In other words, the focus of this paper is to analyze cultural context and what the artworks mean in their interactions with it, rather than merely analyzing the formats and materials used in the artworks. Furthermore, an East Asian perspective, which has different ways of

viewing the body, human interaction and the world, has been used for analysis. Therefore, this paper not only uses a culturally specific background to approach the theory, but also features unique ways of introducing and interpreting the artworks to create a general picture of the contemporary development of speculative design in East Asia.

In order to analyze the artworks from specific cultural contexts, this thesis has dedicated much effort to researching and building a critical framework for analysis. Although general frameworks have been presented, related cultural background, history and philosophy still have space for refinement so that the framework can be adjusted to achieve a deeper, more comprehensive and meticulous research outcome. The frameworks may also be able to be strengthened by incorporating other topics and theories. For example, as many artworks address sexual issues, “sex” could be an independent topic of inquiry. However, this would certainly require a much longer time spent on research. In addition, due to speculative design in East Asia still being relatively young, the number of artworks that can be studied remains limited. As more artists start working in this field and more artworks are produced, there will be greater variety in what can be interpreted in terms of topics, cultural context, approaches and formats.

If more artwork options are to be analyzed under the same framework, one method that could be applied is a comparison of eastern and western speculative design practices concerning the same topics, as it would be interesting to identify whether artists of different cultural backgrounds take different approaches or employ different formats in their artworks. After conducting research, I am now interested more in the format and artistic means used by the artists. Although I value the content and the meaning of the artworks more than their format, a good artwork should be rich in both, as format can give an artwork its artistic value. In this sense, I think that analysis of the format and communication approach of speculative design artworks could extend this thesis.

It is also interesting to note that most of the artworks that I analyze are related to bioart. No doubt, speculative design practices do not always address biology technology, and bioart does not automatically constitute a speculative design method. Therefore, the coincidence that these East Asian speculative design artworks tend to include bioart is probably worth further investigation. Also, the trend of speculative design being applied in the media arts field is intriguing. What are the reasons behind

this phenomenon? Does this suggest the boundary between art and design is blurring? What will happen to media arts next? I think these are interesting questions to be further developed.

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