

# Translating *Taijiao*: Modern Metaphors and International Eclecticism in Song Jiazhao's Translation of Shimoda Jirō's *Taikyō*\*

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## Abstract

As Chinese nationalists grappled with the political and military weakness of the young Republic of China, some proposed a return to the ancient Chinese practice of fetal education as the key to strengthening the Chinese people and nation. This new discourse on fetal education entered the Chinese discussion amidst an influx of new

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ideas about science, the body, and the nation in the late Qing and early Republican periods. This paper analyzes the modern syncretic reformulation of fetal education, or *taijiao*, presented in Song Jiazhao's 1914 monograph *Taijiao*, itself a translation of Shimoda Jirō's 1913 work *Taikyō*. Song Jiazhao's *Taijiao* is representative of late nineteenth and early twentieth century Chinese medical discussions, both in the fact that it is translated from Japanese, a major source of modern gynecological knowledge in this period, and in its portrayal of Western science as compatible with pre-existing Chinese medical and philosophical traditions. The text selectively draws upon classical Chinese texts, Edo and Meiji era gynecological texts, and modern Western science as it re-examines fundamental questions about the origin of human goodness and evil, and the relationship between the fetus and the world outside of the womb. By centering his discussion on the Chinese tradition of fetal education, Song was able to introduce a variety of new European and Japanese cultural and scientific ideas about pregnancy without challenging the fundamental validity of Chinese medicine and culture. At the same time, however, by introducing new metaphors for pregnancy, a new ability to quantify and represent visually the process of human reproduction via the technologies of modern science, and by linking the female reproductive body to the health of the nation, Song helped to transform modern Chinese understandings of reproduction and the female body.

**Key Words:** fetal education, eugenics, Western science, Shimoda Jirō, Song Jiazhao

As Chinese intellectuals grappled with the question of how to strengthen the Chinese nation in the early Republican period, some proposed a return to the ancient Chinese practice of fetal education as the key to strengthening the Chinese people and nation. This new discourse on fetal education entered the Chinese discussion amidst an influx of new ideas about science, the body, and the nation in the late Qing and early Republican periods. This paper analyzes the modern reformulation of fetal education, or *taijiao*, as it is represented in Song Jiazhao's 宋嘉釗 1914 translation of Shimoda Jirō's 下田次郎(1872-1938) 1913 work *Taikyō*. In this text we see a selective emphasis of particular interpretations from within both classical discussions of reproduction and the modern world of Western science as it re-examines fundamental questions about the origin of

human goodness and evil, and the relationship between the fetus and the world outside of the womb. In the process, the text helps popularize several key modern concepts – the applied science of eugenics, new metaphors for reproduction and the female body, Western scientific understandings of human reproduction, and the continued linkage between the female body and the nation – and brings them into the early Republican discussion of gynecology. At the same time Song's translation involves a complex process of re-localizing a particular modern Japanese interpretation of Western science, Western culture and East Asian fetal education to make it accessible to a Chinese audience, ultimately presenting a vision of fetal education that is at once universal in principle and deeply rooted in the Chinese classical tradition.

The term *taijiao* 胎教, which I translate as fetal education, is made up of the characters *tai*, for fetus, and *jiao*, to teach or instruct. While I have translated this term as fetal education, the education in question refers to an idea of moral training and instruction aimed at positively influencing the fetus, rather than a formal mastery of academic material. While the term appears briefly in earlier texts such as *Da Dai Liji*, or the *Senior Dai's Book of Rites*, the idea of fetal education develops fully during the former Han dynasty when Liu Xiang praised the mothers of three of the founding Zhou kings for their diligent practice of fetal education in his famous text the *Lienü zhuan*, or *Biographies of Exemplary Women*.<sup>1</sup> Through this text, Tai Ren, the mother of the Zhou King Wen, becomes one of the most famous maternal exemplars for her careful practice of fetal education. *Biographies of Exemplary Women* records:

Tai Ren was the mother of King Wen and a middle daughter of the Zhiren clan. Wang Ji took her as his wife. By nature Tai Ren was devoted and reverent, completely virtuous was her conduct. When she was with child her eyes beheld no evil sight, her ears heard no perverse sounds, her mouth uttered no careless words. She was able to teach her child in the womb.<sup>2</sup>

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1 Anne Behnke Kinney, *Representations of Childhood and Youth in Early China* (Stanford: Stanford University Press, 2004), pp. 19-20, 164-165.

2 Liu Xiang, "Learning Begins in the Womb: Fetal Instruction [Official Document]," in *Children and Youth in History*, Item #195, <http://chnm.gmu.edu/cyh/primary-sources/195> (accessed June 30, 2011). Translation by Anne Kinney. An abbreviated version of this passage is also included in Song Jiazhaoh 宋嘉釗, *Taijiao* 胎教, 19th ed., Women's Studies Series 1 (Shanghai: Zhonghua

Here the Queen followed the basic principle of *taijiao* that a mother's actions and disposition, as well as all that she took in through her senses, could directly affect the fetus gestating within her. Tai Ren's efforts to shun all evil from her eyes, ears and mouth ensured that no evil could negatively effect her fetus. Thus, her careful practice of fetal education led to the births of one of the great cultural heroes and founding kings of the Zhou dynasty.

Anne Kinney argues that Liu Xiang's advocacy of fetal education arose out of the context of philosophical arguments about the innate nature of human beings, and debates over the best way to ensure the positive moral development of the aristocratic boys at court who might one day grow up to be emperor. The Mencian belief in innate human goodness, which gained prominence in Song and late imperial times as these ideas appeared in texts ranging from children's primers like *Sanzi jing*, or *The Three Character Classic*, to the highest civil service exams, was not the dominant idea of human nature in the Han. Han ideas about human nature included beliefs that some babies were born innately evil, which might be indicated by the inauspicious timing of the birth or conception in relation to complex variables governed by the five phases, or by a difficult birth such as a breach birth, which demonstrated that the infant was unfilial and would grow up to kill its parents. Kinney argues that the dominant Confucian position at court in the former Han fell in between these two extremes. Influenced by the teachings of Xunzi, they subscribed to a more malleable view of human nature, and believed that most human beings were neither innately good nor innately evil, but in need of constant moral instruction to ensure that they learned how to become good. Taking this Confucian emphasis on moral education in early childhood to its most extreme limits, Liu Xiang pushed the timing of instruction back ever earlier to begin *in utero*. In the process, Liu Xiang also shifted the responsibility of moral education from male instructors to pregnant mothers.<sup>3</sup> The passages on fetal education from the *Biographies of Exemplary Women* continued to be quoted and reprinted even in the modern women's journals of the early Republican period, and thus remained a viable part of early twentieth century discussions as women negotiated between old and new ideas about prenatal care and maternal duties.

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shuju, 1914; repr., 1936), p. 5.

3 Anne Behnke Kinney, *Representations of Childhood and Youth in Early China*, pp. 16-29.

In addition to the idea of moral Confucian instruction, the concept of fetal education also contained within it ideas about the relationship between the fetus and the world outside of the womb. Kinney describes this as the principle of “simulative transformation” (*xiaobua* 效化) in which the fetus resembles the things that emotionally moved or affected (*gan* 感) the mother. Kinney explains,

Simulative transformation is a radical view of the environment’s effect on both the spiritual and the corporeal constitution of human beings. In this case, the environment was the womb, and the sensory stimuli that affected the mother simultaneously affected the fetus.<sup>4</sup>

It is this principle that motivated both the moral advice in the *Biography of Exemplary Women* for the pregnant mother to avoid evil sights and sounds, as well as a full array of dietary taboos and other prohibitions in Han and later medical texts. Some authors warned that the sight or ingestion of certain animals or scenes would negatively affect the fetus; for example, a pregnant woman who ate rabbit meat risked birthing a child with a harelip, or one who watched turtles might birth a child with a short neck. During this liminal period of pregnancy, the fetus was portrayed as vulnerable to external impressions as well as to the mother’s own behavior and emotions.

As China entered the twentieth century, discussions of fetal education, like other issues regarding women at the time, became influenced by nationalist concerns and by new ideas about science and society. Chinese intellectuals, concerned about China’s weakness in the face of European and Japanese imperialism, particularly after the Qing dynasty’s unexpected defeat by Japan in the first Sino-Japanese War in 1895, turned their attentions to women as they sought to improve women as a way of strengthening the Chinese nation. The metaphorical link between the strength of women and the strength of the nation internalized both an Orientalist critique of the weak and sickly Chinese physique that invited domination and a eugenicist belief that Social Darwinian struggle for national survival could only be won through the bodies of its people.<sup>5</sup> The

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4 Anne Behnke Kinney, *Representations of Childhood and Youth in Early China*, p. 21.

5 For a discussion of the Orientalist critique of the Chinese physique, see Elizabeth A. Littel-Lamb, “Gospel of the Body, Temple of the Nation: The YWCA Movement and Women’s Physical Culture in China, 1915-1925,” *Jindai Zhongguo funüshi yanjiu* 近代中國婦女史研究, 16 (2008), pp. 167-208.

initially Japanese slogan of “good wife and wise mother,”<sup>6</sup> and the later indigenized discourse of “mother-of-citizens”<sup>7</sup> both sought to strengthen China by improving the bodies and minds of the women who would bear and educate the next generation of (male) citizens.<sup>8</sup> Other related efforts, such as the anti-footbinding movement and the promotion of women’s physical education, focused explicitly on strengthening women’s bodies as a means of strengthening the nation. In many of these arguments the physically weak woman at once stood in metaphorically for the weakened Chinese nation, while at the same time she was assumed, although not always explicitly, to be the cause of national weakness by reproducing these traits in her offspring.

The physical link between mothers and the bodies of the citizenry, implicit in these previous discussions, is laid out explicitly in discussions of *taijiao*. Joan Judge discusses how late Qing female educational primers emphasized the fetal education of the Zhou queens, deliberately linking women’s fetal education to the welfare of the Chinese nation.<sup>9</sup> Similarly, we see late Qing and early Republican books and periodicals incorporate eugenic and nationalist concerns into their discussion of fetal education.<sup>10</sup> In Song Jiazhao’s preface to his Chinese translation *Taijiao*, he points to the racial degeneration of the Chinese people as the root cause of China’s contemporary weakness.

Alas! My ancestors the emperors Yan and Huang are high and far away. The people of this sacred land [China] are in an ever increasing state of decline. The tide of racism surges daily throughout the world while the concepts of intellectual education and physical education have no place in our thoughts at this time. I have written this book in pain and anxiety.<sup>11</sup>

Song thus presents his translation of Shimoda’s *Taikeyō* as the way to rectify China’s national weakness by showing people the way to strengthen and reform

6 J. *ryōsai kenbo*; C. *liangqi xianmu* 良妻賢母.

7 C. *guomin zhi mu* 國民之母.

8 Joan Judge, *The Precious Raft of History: The Past, the West, and the Woman Question in China* (Stanford: Stanford University Press, 2008), pp. 107-122.

9 Joan Judge, *The Precious Raft of History*, pp. 124-127.

10 For more examples of discussions on *taijiao* see Ke Xiaojing 柯小菁, “Suzao xin muqin: Jindai Zhongguo yun’er zhishi de jian’gou (1903-1937)” 塑造新母親：近代中國育兒知識的建構(1903-1937) (Master’s Thesis, National Tsing Hua University, 2007), pp. 13-21.

11 Song Jiazhao, *Taijiao*, preface.

the Chinese people *in utero*.

Song's work *Taijiao* is very much in conversation with the late Qing books on reproductive medicine discussed by Zhang Zhongmin. Zhang focuses on the advertisements for books on reproduction to analyze how they attempted to entice the reader even as they simultaneously influenced the reader's perceptions. Zhang marks 1899 as the turning point where medical books were discussed in terms of national strength rather than purely in medical terms. He also argues that by advertising reproductive books in terms of saving the nation, publishers could profit from the large market for books on sex, while avoiding censorship and legitimizing the sale of books that might otherwise be deemed licentious. At the same time, this rhetoric aimed at selling books also served to help readers internalize a sense of crisis and racial inferiority, and a belief in the necessity of self-strengthening.<sup>12</sup> While there is certainly nothing titillating enough to arouse censorship in Song's *Taijiao*, as it discusses reproduction only on a cellular level and focuses especially on instructing pregnant women to be calm and moral, we can see the same eugenic rhetoric of racial inferiority in its preface. Song's *Taijiao* represents the legacy of the late Qing reproductive texts as it continued to link medicine to state strengthening, and as it brought Western medical knowledge into China through the translation of Japanese texts.

Song Jiazhao's book *Taijiao* 胎教, a 1914 translation and adaptation of Shimoda Jirō's 1913 book on fetal education entitled *Taikyō* 胎教, offers a modern syncretic reformulation of fetal education that incorporates eugenic concerns for strengthening the race.<sup>13</sup> The book *Taijiao* was published by Zhonghua shuju (Zhonghua Bookstore), the second largest publisher of the time after Shangwu yinshuguan (Commercial Press), both located in Shanghai, the center of China's modern publishing industry during the Republican period.<sup>14</sup> It was published as the first volume in the *Nūxue congsbu* series (Women's Studies Series), whose other books included works on motherhood, cooking, moral cultivation, gardening and beauty, suggesting a target audience of young women. The

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12 Zhang Zhongmin 張仲民, "Chuban yu wenhua zhengzhi: Qingmo chuban de shengzhi yixue shuji ji qi duzhe" 出版與文化政治：清末出版的生殖醫學書籍及其讀者, in *Xueshu yuekan* 學術月刊 41:1 (January 2009), pp. 128-142.

13 Shimoda Jirō 下田次郎, *Taikyō* 胎教 (Tokyo: Jitsugyō no Nihonsha, 1913).

14 Christopher A. Reed, *Gutenberg in Shanghai: Chinese Print Capitalism, 1876-1937* (Vancouver: UBC Press, 2004).

placement of advertisements and discussions of the text in modern women's journals, particularly those owned by Zhonghua Books, further suggests that the publishers targeted the young educated urban men and women who subscribed to such journals as the likely market for the book. Based on its content, the text is written to serve as a guide for a healthy pregnancy for expectant families. In the 1923 preface for the revised and expanded edition of the Japanese text, Shimoda Jirō reprints a letter in which a man praises the text for delivering to him two healthy sons after he read the book during both of his wife's pregnancies. Shimoda's choice to cite this anecdote demonstrates the author's desire for the text to serve as a health guide for ordinary families.<sup>15</sup> At the same time, however, the challenging language of the text as it was translated into classical Chinese would have limited its readership to classically educated men and women.

Based on its publishing history, advertisements, and the written responses that the text evoked, the work appears to have been both widely read and influential. Shimoda's original text also appears to have been well received in Japan, where by 1923 it was already on its forty-fifth edition. The Chinese text also demonstrates a long run, starting in the third year of the Republic in 1914 and continuing through 1936, one year before the Japanese invasion of Shanghai. In this paper, I am working from the nineteenth edition of the Chinese text *Taijiao*, which was published in 1936 and retained the original 1914 preface. This longevity suggests that even during a period of great intellectual and political flux, Song's *Taijiao* was in enough demand to make it commercially viable to reprint it for a period of over twenty years.

During this time the text was prominent enough to attract both imitators and critics. For example, the New Culture writer Huang Shi in 1930 in the popular *Lady's Journal* attacked it as both old and Confucian.<sup>16</sup> The text was also retranslated in 1933 into vernacular Chinese based on a later edition of Shimoda's *Taikyō* by a smaller publishing company, *Dadong shuju* (Great Eastern Bookstore) as part of its *Yu'er congshu* (Series on Raising Children). This vernacular translation would have made the work more accessible to a broader, younger audience schooled in newer literary styles.<sup>17</sup> Nonetheless, in spite of both the criticism and

15 Shimoda Jirō, *Taikyō* 胎教, Revised and Expanded 45th ed. (Tokyo: Jitsugyō no Nihonsha, 1923), preface.

16 Huang Shi 黃石, "Shenme shi taijiao" 甚麼是胎教, *Funi zazhi* 婦女雜誌 17:1 (1930), pp. 19-28.

17 Zhu Haisu 朱海肅 trans. and ed., *Taijiao* 胎教, Series on Raising Children 3 (Shanghai: Dadong



the newer vernacular translation, Song Jiazhao's classical Chinese translation continued to be printed through 1936. Song's work thus at once serves to represent the intellectual milieu of Shanghai at the time of its production in 1914, while at the same time representing one voice of a larger discussion on fetal education in the 1930s.

The book *Taijiao* is divided into twenty four chapters spanning seventy eight pages, and covers a broad scope of materials. The first three chapters consist of praises and metaphors for pregnancy, followed by a chapter on choosing a spouse, and four chapters that offer cross-cultural examples of fetal education from classics, literature, and medical texts. The book then switches gears in chapters nine through twelve to present a scientific argument for fetal education based on the modern Western disciplines of biology, psychology and physiology. Chapter thirteen presents moral and medical instructions to pregnant women on practicing fetal education based heavily on Edo period gynecological texts. This is followed by four chapters on how the husband, parents-in-law, family, and neighbors should be a calming influence on the pregnant wife, and then three more chapters on how the home, society, and nature should positively influence pregnant women. The final four chapters address practical matters of pregnancy hygiene, birth attendants, caring for the infant, and choosing a wet nurse. The 1913 Japanese text *Taikyō* is 206 pages, largely owing to the less compact nature of the Japanese script, and has 26 chapters, with one additional chapter on legends of fetal education. The chapter titles are roughly equivalent between the Chinese and Japanese editions, with the exception of the modifications in the titles and content of the Chinese chapters five through eight. Since my purpose in this paper is to examine the syncretic use of cross-cultural examples along with the Chinese adaptations made by the translator, I focus on the first nine chapters, which especially illuminate these features.

Before we start to unpack some of the key ideas that are presented in Song Jiazhao's translation, let us consider for a moment the cultural and intellectual influences on the author of the original Japanese text, Shimoda Jirō. In addition to studying philosophy and psychology at Tokyo Imperial University, Shimoda Jirō also studied philosophy, psychology, and physiology in Germany, France and England, where he was sent by the Ministry of Education to study women's

education from 1899-1902. His work on fetal education reflects some of the prominent themes found in his other writings, including the emphasis on both mental and physical hygiene, and the influence of European scientific ideas about sexual difference.<sup>18</sup> At the same time, Shimoda also demonstrates a command of Edo period gynecological literature, which itself drew upon Neo-Confucian and Chinese classical medical traditions. While Shimoda's text was published in 1913, the second year of the Taishō reign, its content still reflects a Meiji-era marriage between (heavily German-influenced) European science and Neo-Confucian morality.<sup>19</sup> The text *Taikyō* thus represents a Meiji-style modern idea of fetal education that Song Jiazhao introduced back into the Chinese conversation on reproduction with his 1914 translation.

While we do not have extensive information on the translator, we know that Song Jiazhao also published under the name Song Mingzhi 宋銘之, and that he probably came from Suzhou. He was proficient in both Japanese and English, and was also a practicing Christian.<sup>20</sup> His other translations include *Jiehun lun* 結婚論 (Discourse on Marriage), first published by Zhonghua Books in 1915,<sup>21</sup> and *Yedexun furen zhuan* 耶德遜夫人傳 (Biography of Mrs. Judson), a biography of the Baptist missionary wife Ann Judson published in 1924.<sup>22</sup>

In the process of translating the text into Chinese, Song Jiazhao frequently reframes and reorients the discussion for a Chinese audience through subtle additions, changes and omissions. This is especially noticeable in chapters four through eight, where he lays out his definition of fetal education and offers numerous cross cultural examples of the fetus' sympathetic response to outside stimulus. In fact, in his preface, Song states that a friend had already translated Shimoda's work into Chinese, but that Song "thoroughly revised the contents of

18 For a brief biography of Shimoda Jirō, see Yuki Terazawa, "Gender, Knowledge, and Power: Reproductive Medicine in Japan, 1690-1930," (Ph.D. dissertation, University of California, Los Angeles, 2001), pp. 308-312.

19 For a summary of modern science and Confucian morality in women's education, pregnancy and child rearing in the Meiji era, see Terazawa, pp. 367-368.

20 Song Jiazhao trans., *Yedexun furen zhuan* 耶德遜夫人傳 (Biography of Mrs. Judson) (Shanghai: Meihua jinhui yinshuju, 1924), preface.

21 Song Jiazhao, Fei Baoyan 費保彥 trans., *Jiehun lun* 結婚論 (Discourse on Marriage), 8th ed. (Shanghai: Zhonghua shuju, 1915; repr. 1930).

22 Song Jiazhao trans., *Yedexun furen zhuan*.

the previous few chapters and almost completely changed its vocabulary.”<sup>23</sup> I would suggest that these revisions refer to the points where Song takes significant departures from Shimoda’s original text. It is through these alterations that we get the clearest sense of Song’s distinctive voice and interests as a translator. We thus approach the Chinese text *Taijiao* through a series of filters beginning with Shimoda Jirō’s initial selection and reformulation of European, American, Chinese and Japanese texts, which he approached from the context of turn-of-the-century Japanese intellectual and cultural concerns. These writings were subsequently selected, reframed and reformulated by Song Jiazhao, with his own particular cultural and political concerns, and then finally brought to a Chinese readership to read and respond to.

Song’s text is significant enough to warrant closer examination on a number of counts. First, it is one of the earliest monographs on *taijiao* in twentieth century China and can thus shed light on early shifts in the discourse of *taijiao* as the impact of nationalism and Western medicine began to influence the discussion. I have identified only one earlier twentieth century text on the topic, *Tainei jiaoyu* 胎內教育, or *Fetal Education*, originally written by the Japanese author Itō Gotojirō 伊東琴次郎 and translated into Chinese by Chen Yi 陳毅 in 1902.<sup>24</sup> Since my research is focused on the Republican period, and late Qing gynecological texts translated from Japanese have already been discussed by Zhang Zhongmin, I will not discuss this work here. While I have located just three monographs from the early Republican period that focus specifically on fetal education, I have identified a much larger number of journal articles as well as numerous books on women’s reproductive health whose advice on pregnancy care overlaps with discussions on fetal education. From these other works we know that fetal education, as one part of a larger discussion on pregnancy and women’s reproductive health, was a topic of interest to readers and publishers during this period.

Secondly, the text introduces European and American popular and scientific ideas about reproduction to China through the translation of a Japanese work, thus representing one of the major avenues of transmission of modern science in both late Qing and early Republican China. Song’s *Taijiao* follows in the wake of a number of Japanese texts on reproductive medicine that were translated into

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23 Song Jiazhao, *Taijiao*, preface.

24 As cited by Zhang Zhongmin, “Chuban yu wenhua zhengzhi,” pp. 128-142.

Chinese in the late Qing, many with the explicit goal of strengthening the nation.<sup>25</sup> Yuehtsen Juliette Chung has discussed extensively the key role that Japan played in translating Western scientific terminology and concepts into China, particularly following the Qing dynasty's defeat in 1895 in the first Sino-Japanese War. As Chinese intellectuals came to see importing Western scientific knowledge as crucial to China's national survival, they sought out Japanese translations of foreign texts to translate into Chinese. Based on the assumption that China and Japan shared both the use of Chinese characters in their writing systems and a common cultural tradition, they saw translating Japanese texts as the most expedient way to gain foreign knowledge.<sup>26</sup> Song's text, like other works of its time, placed Japan in a dual role as both a member of a shared medical and classical tradition as well as an authoritative pathway to modernity.

At its core *Taijiao* is a transitional work, with a foot in both worlds of modern science and Chinese classics. In its language also, Song Jiazhao's translation stands at the cusp between modern and classical Chinese. It is written with classical Chinese grammar, but contains a significant amount of modern and scientific vocabulary still used in contemporary academic Chinese writing today. The newness of the scientific vocabulary in Song's work is underscored by the fact that he carefully defines each term, in some cases including a sound translation of the Western term along with the newly coined Chinese word, which suggests that the terms were not familiar to many of Song's readers. As an early hybrid text, analyzing the work can help shed light on the complex process of introducing and popularizing new scientific and social concepts about the body and reproduction.

## Exalting Pregnancy

The first three chapters of the text begin by celebrating the joy and wonder of pregnancy. In the process of exalting pregnancy, however, the text transforms pregnancy from an individual or family matter to a miracle of national and even cosmic significance. In fact, as we shall see later, pregnancy becomes a matter too

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25 Zhang Zhongmin, "Chuban yu wenhua zhengzhi," pp. 128-142.

26 Yuehtsen Juliette Chung, "Struggle For National Survival: Chinese Eugenics in a Transnational Context, 1896-1945," (Ph.D. dissertation, University of Chicago, 1999), pp. 23-98.

important to be left merely to chance or to personal whim.

Chapter one, entitled “The Joy of Pregnancy” 妊喜, opens with the voice of a woman telling her husband the news of her pregnancy and contemplating her great joy. The text then takes this individual expression of joy and expands it to represent a proclamation of the great news of pregnancy by all of the women of the world.<sup>27</sup> Again, in a later passage, following a poem about the joys of pregnancy, the individual’s sentiment is similarly universalized, stating that “almost every pregnant woman will share this feeling.”<sup>28</sup> By selecting a few particular writings about pregnancy and applying these experiences to all women, the author thereby defines and asserts one universal experience of pregnancy. The author denies the existence of cultural or individual difference in the experience or understanding of pregnancy, and begins an argument that is carried out throughout this text, of asserting a universal experience of pregnancy and a universal applicability of fetal education.

After declaring a universal proclamation of pregnancy, the text then turns to redefine the future hopes for the unborn child:

When the child has already grown up and thereupon reached adulthood, the small ambition is that he will carry on the purposes of his predecessors and pass down their undertakings, continuing generations of virtue without end. The great ambition is that he will manage military affairs and develop culture, strengthening national power without end. The child with which I am pregnant will have both a place of respect in the world and in the renown and influence recorded in history. It goes without saying that he will take pleasure in the ritual greeting of his parents and fulfill the duties of serving and nurturing them.<sup>29</sup>

This passage shifts the discourse about children from one of Confucian familial duties to one of national and universal importance. The traditional patrilineal goal of carrying on the family line is depicted as a lesser, private ambition. The greater goal is for the child to “manage military affairs,” “develop culture,” and “strengthen national power.” In addition to caring for the parents, the child is charged with the grander goals of gaining respect in the world and renown in

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27 Song Jiazhaohao, *Taijiao*, p. 1.

28 Song Jiazhaohao, *Taijiao*, p. 3.

29 Song Jiazhaohao, *Taijiao*, p. 2.

history. We see here how the private family matter of pregnancy is increasingly politicized and redirected towards the goals of both state building and the more abstract objective of universal human progress.<sup>30</sup> We see once again the use of universalizing rhetoric as a method of elevating the importance of pregnancy and, implicitly, the necessity of *taijiao*.

In chapter two, “The Power of Childbirth” 生德, the importance of women and childbirth is further elevated to represent an act of cosmic significance:

Great is the power of childbirth! Through birth alone, heaven and earth do not cease, and all of creation is thereby continued. But out of all living creatures, humans are the most precious. Through humanity the natural landscape is adorned, and the earth is made productive. But it is woman alone that can give birth to people. From ancient times through the present, those who are considered sages or heroes, along with those who are named as talented, refined and beautiful maidens, if we examine the written record, who is not of a woman born? Lu Ban’s skill with knife and chisel, carving marble to convey the spirit in the image, this may well be called clever, and yet he still could not create a living human. Neither a painter, nor a machine maker, nor some unparalleled artistic master can create a human being with life. And so, aside from woman, who has the ability to create a person with life? Thus, woman’s [innate] power ranks alongside heaven and earth, and is great enough to move the spirits.<sup>31</sup>

In this passage, women’s reproductive power is described as sustaining the cosmos, ensuring that “heaven and earth do not cease,” and contributing to the flourishing of all plant and animal life on earth. Here we can see resonances with the initially Daoist depiction of the fetus as a microcosm of the universe, which came to influence Confucian and Neo-Confucian ideas of cosmology.<sup>32</sup> At the same time, the central role of human beings also reflects a Confucian cosmic

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30 For a discussion of the private being made public in Republican China, see Susan L. Glosser, *Chinese Visions of Family and State, 1915-1953* (Berkeley: University of California Press, 2003).

31 Song Jiazhao, *Taijiao*, p. 2.

32 Anne Behnke Kinney, *Representations of Childhood and Youth in Early China*, pp. 154-162; Charlotte Furth, “From Birth to Birth: The Growing Body in Chinese Medicine,” in Anne Behnke Kinney, ed., *Chinese Views of Childhood* (Honolulu: University of Hawai’i Press, 1995), pp. 159-166.

worldview in which human social ritual and imperial court ritual was central to the cosmic order. In this passage, however, the broader social and ritual role for humans has narrowed to focus on reproduction alone. All other measures of human greatness – whether heroics, talent, or beauty – are shown as secondary to reproduction. All other creative acts of art or mechanical mastery, no matter how accurate or beautiful, are likewise shown as secondary imitations, for “none can create a human being with life.” In the context of the early twentieth century China, in an intellectual world dominated by Social Darwinism and eugenics, this emphasis on the importance of human reproduction for the nation and the cosmos takes on a new level of significance. By asserting that human reproduction was more important than any other human endeavor, it relegates other modernizing efforts of technical or political advancement to secondary importance. The text concludes that “Thus woman’s power ranks alongside heaven and earth, and is great enough to move the spirits.” Women’s act of childbirth was not only the ultimate act of creation, it also offered the best hope for creating a modern Chinese race and nation.

## Eugenics

In both of the above passages a woman’s act of childbearing is expanded from an individual or family matter to one that serves the nation, even going so far as to sustain the cosmos and all life within it. Perhaps it should come as no surprise that a matter of such significance could not be left to chance, but must be carefully nurtured and regulated. The following chapter opens with a warning that since the nation and civilization all depend upon pregnancy, it is crucial that one seek to give birth to a good child and not a bad one:

The nation, society, civilization, history. They entirely emerge out of this single thing: pregnancy. Such is the paramount importance of pregnancy. As for the child of the pregnancy, there are good ones and there are bad. Rather than give birth to a bad child, and disgrace the family and burden the group, would it not be preferable to remain forever single? Therefore, [if you] already want to be pregnant, you must seek a good birth. [If you] want to seek a good birth, then

first you must choose your spouse.<sup>33</sup>

The emphasis here on selecting a good spouse is a distinctly new addition to the discussion of *taijiao*, based on the modern logic of eugenics. The idea of eugenics emerged out of late nineteenth century Europe as an effort to improve the Darwinian fitness of the populace by applying science to human reproduction. Yuehtsen Juliette Chung explains,

Eugenics in this context was considered as the science or technology of human betterment through the application of genetic laws designed so that the dominated could measure up to civilizational standards, or the dominators to restrain the deplorable tendency of racial and national degeneration.<sup>34</sup>

From the late nineteenth century through the first half of the twentieth century, eugenics spread and became localized across the globe, so that eugenics movements were at once varied and rooted in particular local concerns while still being part of a global discussion. Chung argues that for both Chinese and Japanese intellectuals, eugenics was employed as part of an effort to meet the civilizational standards set initially by European intellectuals.<sup>35</sup> I would argue that in the Chinese discussion, the concern about national sovereignty, as we saw in Song Jiazhao's preface, adds another degree of motivation and urgency to the discussion of eugenics. Finally, as Chung points out, it should be noted that while eugenics was often couched in genetic terminology, many strands of the discussion assumed a belief in the heritability of acquired traits. Therefore eugenics movements in Europe, the United States and Asia alike did not limit their concerns to genetically heritable diseases and traits, but also strove to prevent the passing on of particular acquired traits, behaviors and diseases. Many eugenics movements tried to prevent marriage or reproduction between people who were deemed criminals or of marginal groups as well as people with communicable diseases such as venereal disease or tuberculosis.<sup>36</sup> Indeed, without this assumption of the heritability of acquired traits, the use of *taijiao* to improve the population would have made little sense. Throughout this text, we

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33 Song Jiazhao, *Taijiao*, p. 4.

34 Yuehtsen Juliette Chung, *Struggle for National Survival: Eugenics in Sino-Japanese Contexts, 1896-1945* (New York: Routledge, 2002), p. 3.

35 Yuehtsen Juliette Chung, *Struggle for National Survival*, pp. 3-22.

36 Yuehtsen Juliette Chung, *Struggle for National Survival*, pp. 3-28, 61-103.



can see the influence of eugenic concerns as well as assumptions about the heritability of both inborn and acquired traits. With this background in mind, I will examine the particular way in which eugenics influenced the discussion of selecting spouses in this text.

To introduce the reader to the idea of eugenics and the importance of choosing a correct spouse, the text turns to a European classical founding myth in a discussion of Sparta.<sup>37</sup> Here Sparta's strength and dominance is attributed to its eugenic practices and contrasted with the weakness of contemporary peoples.

In former times, the people of Sparta, seeking to give birth to fine children, in marriage always rigorously selected a man or woman whose physical constitution was completely healthy. The state examined the sons and daughters that they bore. The weak ones were abandoned on mountains and in valleys. Therefore all of their citizens were able-bodied, which they used to dominate Europe and the West. Now value is placed on humanitarianism. Even if the children that are born are weak, they all must be reared. Even so, many of the sickly and weak children die prematurely. Even if they achieve a midrange longevity, their mental constitution and physical strength does not reach that of normal people. When pursuing achievements, they constantly fail. They take from the group to nourish themselves, exhausting the [resources of the] nation. Moreover, when they are young, they moan and cry in distress, and their parents work overtime protecting and caring for them. The source of this future disaster all comes from lack of care in choosing a spouse.<sup>38</sup>

Several new and distinctly modern concepts are introduced through the guise of ancient Spartan wisdom. The first is the argument that only completely healthy men and women should be allowed to marry, for only healthy people could give birth to healthy children. Classical Chinese discussions of *taijiao* pay

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37 I use the term founding myth here not to make a statement on the historical accuracy of Spartan marriage practices, but to emphasize how stories of Greece in general, and in this discussion Sparta in particular, serve to give an identity and a mythical ancestry to European states and people, regardless of the actual connections involved. I see this as playing a similar function as modern discussions of the Yellow Emperor in China.

38 Song Jiazhao, *Taijiao*, p. 4.

great attention to how a pregnant mother acts and carries herself, that she has good posture, acts calmly, and avoids taking in any sights, sounds or flavors that might harm her fetus. They do not, however comment on the fundamental health or physical structure of the mother's or father's body. The physical fitness of the parents is not the focus of traditional Chinese discussion of *taijiao*. The second new concept is the idea that the state should examine all babies and expose any weak ones. It is interesting to note that at the same time as contemporary birth control advocates in China promoted birth control as a modern alternative to what they described as the traditional Chinese practice of infanticide, this text criticizes contemporary people for raising all babies, regardless of their fitness, instead of practicing infanticide like the ancient Spartans.<sup>39</sup> This second statement is noteworthy on several accounts. For one thing, it puts the state, rather than the individual or family, in charge of determining which babies should live and which should die. While infanticide was practiced in pre-twentieth century China and Japan as one part of a family's reproductive strategy, often based upon the ideal offspring set and gender configuration, it was a matter decided upon at the family level.<sup>40</sup> Such an intimate family matter was not a normal part of the state's jurisdiction, and when it was commented on at all by officials, it was normally done with a tone of either paternalistic pity or moral condemnation. The idea that caring for weak babies led to high rates of early childhood death as well as to high numbers of mentally and physically weak adults also appears to be a newly modern one. The whole specialization of pediatrics, which had been part of Chinese medicine since the Song dynasty, took as a core assumption that children's bodies were especially vulnerable and in need of special care.<sup>41</sup> Family stories that recorded the devoted care of family members who sacrificed to nurture a weak infant to adulthood were told with admiration, not condemnation, in late imperial Chinese sources. Finally, in a strange reversal of logic from writings that call for the protection of infants, in

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39 For discussion of modernizing rhetoric criticizing Chinese infanticide, see Cheryl Lynn Barkey, "Gender, Medicine and Modernity: The Politics of Reproduction in Republican China," (Ph.D. diss., University of California, Davis, 2000).

40 G. William Skinner, "Family Systems and Demographic Process," in *Anthropological Demography: Toward a New Synthesis*, ed. David I. Kertzer and Thomas Earle Fricke, pp. 66-75 (Chicago: University of Chicago Press, 1997).

41 Hsiung Ping-chen, *A Tender Voyage: Children and Childhood in Late Imperial China* (Stanford: Stanford University Press, 2005), pp. 31-50.

this passage weak babies are depicted as predatory to the nation and a harbinger of disaster: “They take from the group to nourish themselves, exhausting the [resources of the] nation.”<sup>42</sup> The idea that the very existence of weak individuals was an assault upon the nation is a distinctly modern concept rooted in eugenics. Indeed it is this very premise, that weak individuals threatened the nation, that led governments throughout the world to take various measures, ranging from public health and sanitation to sterilization and euthanasia, to prevent the development and reproduction of individuals or segments of the population that were deemed unfit.

### Localizing and Universalizing Fetal Education

I now turn to chapters five through eight of this text to examine the way that Song presents his evidence, while also highlighting some significant modern innovations in the discussion of *taijiao*. Here we see an eclectic assortment of evidence on *taijiao* ranging from Chinese classics, Japanese traditional medical works, modern Japanese and German medical texts, accounts of famous European and Japanese persons and finally examples from American and European literature. By analyzing Song’s presentation of evidence, I aim to investigate how Song Jiazhao understood, translated, and incorporated new forms of cultural and scientific knowledge into his understanding of human reproduction. At the same time, by looking at the adaptations that Song made in his presentation and selection of materials as well as in the chapter titles themselves, we can discern some key differences from Shimoda Jirō’s framing and interpretation of the evidence. Let us take a minute to consider the following cluster of chapters.

Song Jiazhao’s chapter 5 is simply titled “*Taijiao*”胎教. It combines two corresponding chapters from Shimoda Jirō’s text, chapter 5, “The Matter of *Taijiao*”胎教の事 and chapter 6, “Opinions About *Taijiao*”胎教に関する意見. Song opens by briefly stating that once quality parents had been chosen, one must pay attention to the fetus’ development. This involved both physical hygiene, which meant doing all things in moderation, and mental hygiene, which

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42 Song Jiazhao, *Taijiao*, p. 4.

could strongly influence the child's strength and intelligence. Thus in a few cursory sentences Song sums up what for Shimoda Jirō is presumably a defining chapter on the proper practice of *taijiao*. Instead, Song turns quickly to devote the main body of the chapter to key passages about *taijiao*, three from Chinese classical texts, two from Japanese medical texts, and one from an American pamphlet. This part of the chapter corresponds approximately to Shimoda's chapter six on "Opinions about *taijiao*." However, whereas Shimoda rhetorically distances himself from this section, presenting Chinese and Japanese classical and medical texts as merely opinions on *taijiao*, Song uses these texts to define and to provide detailed instructions for the practice of *taijiao*. Before quoting the Chinese classics Song states, "Now I will cite a few examples that have clear and detailed meanings, so that pregnant women can recite and study them."<sup>43</sup> Note here that for Song the classics are not offered as interesting asides of cultural knowledge, nor as traditional examples to contrast with modern science. Instead they are meant to be studied and recited, a practice with distinct Neo-Confucian overtones. Even in this text, in which Song later presents modern scientific knowledge of human reproduction, the classics remain for him authoritative texts that serve as the foundation for a discussion of *taijiao*.

Let us then look briefly at the texts that Song presents in this section. The first two classical examples that he quotes are the sections from the *Da Dai lijì* and the *Lienü zhuan* on the Zhou queens—respectively Yi Jiang, mother of King Cheng, and Tai Ren, mother of King Wen. These are not randomly chosen examples. In addition to being key classical maternal exemplars, both Queen Mother stories link the practice of *taijiao* to the success of—and in these cases it could be argued the very founding of—the Chinese nation. Joan Judge argues that late Qing female educational texts deliberately emphasized the examples of the Zhou queens' *taijiao*, and in so doing linked *taijiao* to the Chinese nation.<sup>44</sup> Song then presents a third Chinese text (which does not appear in Shimoda's text), the 3rd century encyclopedia *Treatise on the Knowledge of Things* 博物志, which serves to offer more detailed instructions than the previous accounts, advising mothers to avoid particular sights, foods and sounds, while also instructing them to recite literature.

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43 Song Jiazhao, *Taijiao*, p. 5.

44 Joan Judge, *The Precious Raft of History*, pp. 124-127.

The rest of the chapter quotes the same passages as Shimoda's text, following with two Edo period Japanese gynecological texts. The first text, *Draft on Prolific Offspring* 蠡斯草 by Inō Kōken 稻生恆幹 serves to expand on the principles of *taijiao*, stressing the importance of teaching the fetus *in utero*, rather than waiting until after the child is born, and describing the shared *qi* between the mother and child. The second text, *Treatise on Gynecology* 女科廣要 by Taki Motokata 丹波元堅, expands upon examples of calm living, instructing the mother to reside in quiet rooms, play stringed instruments and restrain her desires. The passage concludes that, "This in sum is the teaching left by King Wen."<sup>45</sup> While these texts come from Japan, and it may be the case that they would not have been selected in a work originating from a Chinese rather than a Japanese author, they continue in the same general logic and medical concepts as the traditional Chinese texts on *taijiao*. In asserting that this advice follows the teachings left by King Wen, Taki Motokata asserts the place of Japan as an equal bearer of the Chinese classical tradition. I would argue that Shimoda's initial selection of these two Japanese medical texts here also demonstrates an assertion of Japan's role as a legitimate bearer of the Chinese classical heritage. For Song the translator, however, such a claim is not self evident, and pre-modern Japanese examples necessitate a Chinese introduction. For example, the subsequent chapter in Shimoda's text opens directly by introducing the Japanese Confucian scholar Itō Jinsai 伊藤仁齋, whose wife gave birth to a filial and scholarly son Tōgai 東涯 due to the father reciting the classics daily before his pregnant wife.<sup>46</sup> In the Chinese version, however, Song introduces this Japanese story by first referring to the Chinese maternal exemplar Tai Ren mentioned previously. Throughout the text Song similarly presents both traditional Japanese examples and new foreign information by first framing it with classical Chinese examples. This process of reframing the discussion from a Chinese perspective serves to both explain and make palatable to the Chinese reader a variety of new information coming out of powerful and threatening imperialist countries.

The final text presented in this chapter is from a pamphlet by the American Minnie Davis.<sup>47</sup> This text serves an important role of internationalizing and

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45 Song Jiazhao, *Taijiao*, p. 6.

46 Shimoda Jirō, *Taikyo*, p. 23.

47 I translate the name as Minnie Davis based on the sound of the Japanese katakana ミニーデビス (*Minni Debisu*) in Shimoda Jirō's text. I have not yet been able to identify Minnie Davis in any of

thereby legitimizing the discussion of *taijiao*. By showing the presence of *taijiao* in Europe and the United States, the text thereby validates the Chinese and Japanese tradition of *taijiao*, while bringing new concepts into the discussion. The American text recounts a story of a talented and loving couple whose first child was conceived amidst the beauty of the sunset and the ocean, producing a talented and diligent son. However, the second son was conceived in a very different situation, after the couple faced financial troubles and the husband had “abandoned the upright path” in an effort to survive. The child of this union, in contrast to his brother, turned out to be a shameless ruffian. The story concludes that the difference between the two brothers was due to the difference in the parent’s situation during the period of conception and gestation.<sup>48</sup> As I will explain below, this emphasis on the quality of the relationship of the parents during the conception and pregnancy introduces another new concept into the discussion of *taijiao*.

### The Importance of Marital Harmony

The subsequent chapter six in Song’s text is entitled “The Effectiveness of *Taijiao*” 胎教之效. Song’s title presents the chapter as offering further evidence on the effectiveness of the principles of *taijiao* laid out in the previous chapter. Shimoda’s chapter titles, however, suggest a greater contrast between the two chapters. While Shimoda’s previous chapter, which focused heavily on Chinese and Japanese classical texts, was entitled “Opinions about *Taijiao*”, he titles this chapter, which focuses primarily on one Meiji era gynecological text, “The Facts about *Taijiao*” 胎教に關する事實. For Shimoda, while the Edo texts provided “opinions” that continued a classical medical tradition, the Meiji era Hara Taneaki 原胤昭, author of *Mother and Child* 母と子, discussed the reality of *taijiao*, and served as a modern medical authority. The content of the passages quoted by Hara Taneaki in both Shimoda’s and Song’s texts follows the same general logic as the story by Minnie Davis in Song’s previous chapter. In each of Hara’s examples, parents living honest harmonious lives during the time of conception and pregnancy gave birth to filial and economically productive children. In

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my searches.

48 Song Jiazhao, *Taijiao*, p. 7.

contrast, parents that conceived children in a period of domestic strife, whether due to economic stress or to the husband's immoral extravagances, gave birth to criminals.<sup>49</sup> Several interesting new concepts are introduced in Hara's depiction of *taijiao*. The emphasis on the relationship of the parents during conception and pregnancy suggests the influence of the ideas of Ellen Key, a Swedish writer who argued that a harmonious relationship and a sexually fulfilling union between the parents was necessary to produce the highest quality offspring.<sup>50</sup> Secondly, the state of the husband seems to be as important in these stories as the state of the pregnant wife. In one story, a husband who was a wealthy official before the Meiji restoration indulged in women and wine. The son that he conceived with his wife during this time grew up to be a thief.<sup>51</sup> Interestingly enough, the story does not even describe the wife's behavior. This seems to mark a shift from the earlier Chinese tradition of *taijiao*, in which it was the pregnant mother's behavior and the influences upon her that affected the child. According to the logic of traditional Chinese medicine, the mother and child shared *qi* and blood, and thus her influence upon the child was great. By what medical mechanism are the father's actions understood to affect the child? Finally, the emphasis on the parent's misbehavior or poor relationship leading to the birth of criminals seems to reflect a particularly modern eugenic concern about crime often raised by European, American and Japanese social commentators of this period. While this is not necessarily in conflict with pre-existing Chinese ideas of *taijiao*, it was not a focus of Chinese discussions.

## Fetal Education and the Principles of Sympathetic Response

Both Shimoda's chapter on the facts about *taijiao* and Song's chapter on the effectiveness of *taijiao* conclude by briefly describing how the mothers of Mozart,

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49 Song Jiazhao, *Taijiao*, pp. 8-9.

50 Ellen Key's book *Love and Marriage* was published in 1911. It is worth noting here that Shimoda Jirō's text does bring up Ellen Key in several places; Song, however, does not refer to her directly. For a discussion of the influence of Ellen Key on later discussions in *Funü zazhi*, see Chiang Yung-chen, "Womanhood, Motherhood and Biology: The Early Phases of The Ladies' Journal, 1915-1925," in *Translating Feminism in China*, ed. Dorothy Ko and Wang Zhen, pp. 70-103 (Malden, MA: Blackwell Publishing, 2007).

51 Song Jiazhao, *Taijiao*, p. 8.

Bach and the French composer Charles-Francois Gounod all listened to music while pregnant or nursing, thus giving rise to these musical geniuses. These musicians provide positive examples of the principle of sympathetic response that lay behind fetal education. According to this telling of the stories, these future musical geniuses developed as the fetuses/infants responded to the music that surrounded their pregnant or nursing mothers. As famous Europeans, these examples give extra weight to prove the validity and the international applicability of fetal education.<sup>52</sup>

Chapters seven and eight both concern issues of fetal impressions or *taigan* 胎感. Traditional Chinese ideas about fetal impressions assumed the logic that anything a pregnant mother took in through her senses could directly impact the fetus. For example, a pregnant woman who looked at rabbits or ate rabbit meat might birth a child with a harelip or a cleft palate. Such warnings and stories filled Chinese medical literature as well as more popular forms of writing, such as late Qing pictorials and even discussions in the modern journal *Funü zazhi*.<sup>53</sup> While Huang Shi, the *Funü zazhi* author who depicted Song Jiazhao as an old Confucian in 1930, approached such popular beliefs with disdain, in this text the concept of fetal impressions is presented as a universal belief, and one that may even have scientific grounding. It is interesting to note that Chinese and Japanese examples are not highlighted here, presumably these would already be known to readers in either country. However, by bringing in examples from European literature and science, these pre-existing ideas are given an aura of greater legitimacy and universality.

Chapter seven presents two examples from literature. The first is from a German story, *Mademoiselle Scuderi*, by E.T.A. Hoffman, in which a pregnant woman's passionate interest in a necklace worn by an ex-suitor later gives birth to a son who is so passionate about jewelry that he becomes a famous artistic jeweler who then steals and murders to reclaim his artistic treasures.<sup>54</sup> The second story presented here is a British short story, "An Imaginative Woman", by Thomas Hardy about a woman who falls in love with a man that she has never met and knows only through his poems and photograph. Although she had never touched this man, the child that she gives birth to bears a strong resemblance to

52 Song Jiazhao, *Taijiao*, p. 9; Shimoda Jirō, *Taikyo*, pp. 30-31.

53 Huang Shi, "Shenme shi taijiao," p. 28.

54 Song Jiazhao, *Taijiao*, pp. 10-11.



the poet and not her husband.<sup>55</sup>

While Song entitles these two chapters as “Fetal impressions”胎感 and “The Ill Effects of Fetal Impressions”感受成錯, generally presenting the stories as examples of fetal impressions, Shimoda again distances himself from this type of evidence. Shimoda titles the former chapter “*Taijiao* in Literature”文學に現はれたる胎教 and the later chapter “Tales about *Taijiao*”胎教に関する傳説. The latter chapter in Song’s text includes brief accounts of different stories of fetal impressions throughout the world: a butcher’s son whose feet are like hoofs, a family that raises turtles whose children are all hunchbacked, and a woman with a poster of a bear over her bed whose son resembles a bear. Song’s text states how all across the world, from England, Japan and Germany this kind of phenomenon is referred to and people can offer examples of its occurrence. A German gynecologist is even discussed as having written a book about this phenomenon, lending an aura of scientific as well as European authority to the discussion.<sup>56</sup> While Song states that he can not prove scientifically that these phenomena are true, the international examples of fetal impressions in these two chapters are presented in a manner that suggests that he thinks that they are true. He states “Although it can’t be proven, by looking at this evidence we know that the strength of *taijiao* is immense.”<sup>57</sup> Through his interpretation and presentation of evidence in the aforementioned chapters, Song maintains the position of the Chinese classics as the central authority on the practice of *taijiao*. At the same time, he introduces European, Japanese, and American cultural and medical examples to reinforce the importance of fetal education and the dangers of fetal impressions by demonstrating their universality.

## Mixed Metaphors

Even as Song uses foreign evidence to bolster traditional Chinese practices and beliefs about *taijiao*, he also introduces new metaphors and ways of describing pregnancy that ultimately challenge pre-existing Chinese understandings of pregnancy. To understand these changes, I first analyze the mixture of metaphors used in the

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55 Song Jiazhao, *Taijiao*, pp. 11-14.

56 Song Jiazhao, *Taijiao*, p. 14.

57 Song Jiazhao, *Taijiao*, p. 15.

first three chapters of this text, while paying special attention to the introduction of new, modern metaphors. I then turn to chapter nine, on fetal development, to show how scientific descriptions of reproduction provide the most dramatic new metaphor for pregnancy.

In a manner that appears to be the signature of this text, both old and new metaphors are mixed together in the early chapters of this text. Natural metaphors of fledgling birds, pearls and agriculture appear alongside new mechanical imagery. Through these changing metaphors we can see how new concepts about reproduction and the female body were understood, as well as how new paradigms of Western science and industrialism began to permeate these most basic conceptions of life.

In chapter one we see the use of natural metaphors of agriculture and birds to describe the joy of pregnancy:

Just as in planting and growing, with your hands you cultivate and irrigate, and the roots ramify and the sprouts swell, until finally the branches and leaves become luxuriant and well-spaced, and their flowers and fruit flourish and grow large. Again, it is like raising birds: In the beginning one watches them hatch, gradually one sees feathers, gradually months and days go by, they start to fly, and sing.<sup>58</sup>

The agricultural metaphor provides one of the most common metaphors for conception and gestation in late imperial gynecological literature. The metaphor contains within it a patrilineal concept of reproduction whereby the father provides the seed for the child and the mother's role is to nurture the seed with the blood of her body.<sup>59</sup>

In contrast, chapter two begins to introduce new modern metaphors for pregnancy. Here, following a discussion of the amazing ingenuity of the human body, a new metaphor of construction is used to describe pregnancy:

Although what science and religion say about these numerous examples differs, in the end [they both agree that] the complicated details of the human body are ingenious; almost nothing can compare with these. Thus, by the end of a nine month period, a woman has naturally constructed them within her belly, without the slightest

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58 Song Jiazhao, *Taijiao*, p. 2.

59 Yi-Li Wu, *Reproducing Women: Medicine, Metaphor, and Childbirth in Late Imperial China* (Berkeley: University of California Press, 2010), pp. 13, 141-145.

error or mishap.<sup>60</sup>

This passage reflects the distinctly modern Western dichotomy between science and religion. At the same time it describes the human body as ingenious, as if part of a design or plan. Fetal development is similarly described as a perfect process of construction,<sup>61</sup> suggesting an active and even mechanical act of creation rather than the natural process of plant growth or even cosmic regeneration.

Song expands his use of mechanical metaphors in chapter three to emphasize the wonder of pregnancy. Here we see the construction metaphor placed alongside other natural metaphors:

What is pregnancy? Inside a woman's belly is a sacred factory that is called "womb." It constructs the spiritual being that is called "person." When we speak of "pregnancy" this means "construction." The pearl that shines in the dark is born of the South Sea clams. [It] collects the sandy soil's essence. It contracts and receives the *qi* from the clouds and the sun. For years it is cultivated, for months it ferments, gradually culminating in completion. A human is also like this. The father sows it as a seedling, and the mother irrigates it with liquid. This lasts a period of nine months, and then, emerging, it becomes a person.<sup>62</sup>

Here the woman's body is described as simultaneously sacred and mechanical, as a sacred factory<sup>63</sup> that constructs<sup>64</sup> people. The sacred language in the passage harkens back to earlier passages that elevate woman's reproductive capacity to rank alongside heaven and earth, and as capable of moving the spirits.<sup>65</sup> At the same time it reminds us that this reproductive virtue is expressed in new terms of factories and construction. Alongside these passages, however, we still see traditional Chinese sexual and medical metaphors of reproduction involving the mixture of essence and *qi*, and of the father planting a seed to be irrigated by the mother's blood.

The final example of mechanical metaphors occurs later in the same chapter.

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60 Song Jiazhao, *Taijiao*, p. 2.

61 Song writes this as 構成, which I read here as meaning 構成.

62 Song Jiazhao, *Taijiao*, p. 3.

63 *Shensheng zhi gongchang* 神聖之工廠.

64 Song uses both 構成 and 構造 in this passage, both with the character 構 for 構.

65 Song Jiazhao, *Taijiao*, p. 2.

Here a radio is used to describe the communication between the mother and her unborn baby.

Generally, when someone has gone through five months of pregnancy, the child in the womb can often make small indications of movement, as if to announce itself to its mother, and the mother thereupon responds by stroking [her belly], connecting via her will. Their spirits communicate back and forth, like a radio transmitting without pause until the completion to nine months. Thereupon, coming into the world with a cry, the pearl in the middle of one's belly will emerge like a precious jewel in the palm of one's hand.<sup>66</sup>

Through these metaphors we can see the emergence of new ways of thinking about the female reproductive body. Women's reproductive bodies are described as both sacred and mechanical, with the human fetus being constructed within the sacred factory of the womb. The mother and fetus are described as communicating with one another, but not as an interlinking system but as two spirits communicating like a radio.

How then do these new metaphors change the way that reproduction is depicted and understood? On the one hand these new mechanical metaphors may reflect the introduction of the Cartesian concept of the body as machine, and with this concept an accompanying belief in the body as something that is known and quantifiable. Perhaps the metaphor of a mechanically reproducing body made ideas such as eugenics, which was considered to be the scientific application of genetics, seem more logical. With the metaphor of the womb as a people-producing factory it might be easy to imagine that simple interventions could change the product that was produced. At the same time, these metaphors may also serve here as a form of scientism, marshaled to give greater weight and importance to the concept of pregnancy. Perhaps these metaphors merely represent a modern understanding of the world seeping into the representation of the gestating fetus, just as previous depictions of the fetus had reflected a view of the world that incorporated ideas about agriculture, yin and yang, and the five phases.

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66 Song Jiazhao, *Taijiao*, p. 3.

## The Science of Fetal Development

The final representation of conception and gestation that I will examine here, however, presents a paradigm shift in the depiction of reproduction. Chapter nine of Song's text, which is entitled "Fetal Development" 胎兒之發育, offers what I see as the ultimate modern metaphor of human reproduction, a cellular scale description of reproduction based on the modern science of the day. I use the term metaphor because it offers new ways to understand and visualize reproduction, in a manner that both reveals and asserts particular social and cultural assumptions.

Song begins this chapter by explaining how the human egg is fertilized by sperm. He then quickly turns to earlier metaphors of birds hatching eggs to explain this:

Even if there is no rooster around, a hen can still lay an egg, but the eggs that are laid have no way of being hatched and becoming chicks. No egg can hatch that has not been fertilized. Women are also like this. An egg that has not been fertilized is released once a month; this is called menstruation. An egg that is fertilized stays in the womb. It gradually develops. Approximately two hundred eighty days afterwards, it thereupon becomes an infant.<sup>67</sup>

Having established the concept of human fertilization using poultry analogies, Song then discusses the development of the human fertilized egg by first explaining the new scientific knowledge of cellular division. He presents cells as the basic building blocks of all living things, from single-celled amoebas to multi-cellular organisms such as humans. Alongside these descriptions, the text provides a diagram depicting a fertilized human egg, with labels and explanations for each part within the cell as it was understood in his time, in this case the cell wall, the nucleus, the nucleolus and the protoplasm.<sup>68</sup>

The impact of the microscope on this description is profound. Not only does it allow Song to depict the fundamental beginning of life in the human egg,

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<sup>67</sup> Song Jiazhao, *Taijiao*, p. 15.

<sup>68</sup> Song Jiazhao, *Taijiao*, p. 16.

it enables his measurement and quantification of fetal development. Throughout this description Song displays a palpable excitement in the ability to see and measure something as small as cells, as well as to quantify the tremendous rate of growth, as an infinitesimally tiny egg transforms into a human infant. Large numbers and chains of zeros litter the text as the author explains with great enthusiasm the relative size and numbers of cells and developed organisms. The author expresses amazement at the smallness of a human egg, which could then turn into a human organism: “An adult person has approximately 26,500,000,000,000 (twenty six trillion, five hundred billion) cells. This surprising number of cells arises from only a single fertilized egg within the mother’s womb.”<sup>69</sup> This description of fetal growth as the multiplication of cells at once makes the process of fetal development knowable and quantifiable while conceptualizing the formation of human life within a universal biological system of cell theory.

Song’s ultimately uses his descriptions of the immense change in size from an egg to a fully developed infant to prove the tremendous importance of fetal education:

As it grows from an extremely small egg to a fully developed human body complete with all kinds of complicated organs, the magnitude of the change is startling... Therefore it is only necessary during this 280 day period to pay attention to fetal education and this will aid the development of the fetus and attain your dreams of worthy sons and daughters. In contrast, ignoring hygiene in daily life will hinder the development of the fetus, causing future pernicious consequences. The error is far greater than not knowing the right way to raise and educate a child after it is born.<sup>70</sup>

Here the modern technology of science is used not to refute but to prove and reinforce the importance of the traditional Chinese practice of fetal education.

Finally, the text introduces Ernst Haeckel’s theory that the human fetus develops in a manner parallel to the evolutionary stages of animals. Just as animals evolved from single-celled amoebas to fish, to amphibians, to beasts and finally to humans, so too did the individual human fetus, starting from a single celled egg, develop through each of the evolutionary stages. At one stage the

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69 Song Jiazhao, *Taijiao*, p. 16.

70 Song Jiazhao, *Taijiao*, p. 20.

fetus displayed gills, at another a tail, at another the fur of an ape until finally it was born as a fully formed human infant.<sup>71</sup> Song states:

Thus the time it takes to develop from an egg to an infant, the period of ontogenesis, is only two hundred eighty days. As for the development from the lowest animal to humanity, the extraordinary long time required for this entire phylogenesis extends over unknown thousands of myriad years. When I stated above that the two processes are parallel, it means that one day of life inside the womb can be seen as approximately several thousands of years of phylogenesis.<sup>72</sup>

As with the discussion of cell theory, this depiction of the evolving fetus linked fetal development with universal biological principles, in this case evolution. This in turn lent support for the idea of eugenics, which was seen as the scientific application of genetics for human improvement. By depicting this evolution as occurring over the course of a single pregnancy, this text further gives primacy to fetal education as the best mechanism for racial improvement vis-a-vis related efforts such as selective breeding or improving future mothers through physical education and hygiene.

In this modern reformulation of *taijiao*, we see the reflection of a changing understanding of the broader world. Whereas Han and late imperial medical texts reflected a philosophical concept in which the fetus served as a microcosm of the universe, embodying the joining of the yin and yang and the *qi* of which all matter was composed, Song's text presented a new depiction of the fetus that reflected the new paradigm of modern science. Rather than containing the cosmos, the fetus was divided into cells, the building blocks of all life. In contrast to than the innumerable myriad or the rhetorical ten thousand things, the cells of the fetus were numbered, with measurable rates of cellular growth. Rather than illustrating the development of the fetus according to the five phases, the fetus developed according to the turn of the century idea of evolution, progressing

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71 Song Jiazhao, *Taijiao*, pp. 20-21. Song's description of the fetus going through evolutionary stages of development reflects the viewpoint of the German zoologist Ernst Haeckel (1834-1919), famous for the phrase, "Ontogeny recapitulates phylogeny." His views were popularized in his 1868 publication of *Natürliche Schöpfungsgeschichte*, reprinted in English in 1876 as *The History of Creation*.

72 Song Jiazhao, *Taijiao*, p. 21.

from the lowliest animal to its highest form of development as an infant human. It was an evolution that could continue to improve in the spirit of eugenics with the careful selection of spouses and attention to the practice of fetal education.

## Conclusion

We can see how Song Jiazhao's reformulation of fetal education reflects the interactions between old and new conceptual systems, contemporary concerns and anxieties. While the initial discussions of *taijiao* may have first developed out of a Confucian effort to ensure the positive moral development of a future emperor whose ritual behavior would one day serve to create order in the cosmos, by the early Republic the aim had shifted. What was at stake was not cosmic order, but the survival of the Chinese nation within an international order locked in a Social Darwinian struggle for survival. Chinese racial survival depended not on the mothers of emperors, but on the mothers of citizens, who could strengthen the Chinese race *in utero* through their careful practice of fetal education. And while the royal Zhou mothers might continue to serve as exemplars of *taijiao*, they stood beside examples from Japan, Europe and America, demonstrating the universality of fetal education. Ultimately, however, it was Western science that provided the strongest proof and explanation for the principles and efficacy of fetal education.

In many ways Song Jiazhao's *Taijiao* serves to epitomize the late Qing and early Republican intellectual climate prior to the New Culture movement. It reflects the rising concern about national weakness and racial degeneration, and represents an effort to remedy that weakness through the importation of Western science and medicine. Like many works of its time, the Western medicine of this text was brought into China through translation, in this case via Japan, and bringing with it racial concepts and social values of Meiji Japan. At the same time, this period was one of creative syncretism. East and West are not depicted as diametrical opposites. Instead, Western science is used here to prove the validity of traditional Chinese fetal education.

With the rise of the New Culture movement, which started in 1915 and increasingly dominated the discussions in the intellectual journals of the 1920s and 1930s, the syncretic intellectual world of Song Jiazhao came under attack. In



1930 we see the New Culture author Huang Shi publish an attack on this work in the popular periodical *Funü zazhi* (Ladies Journal), comparing it unfavorably to a 1926 book also entitled *Taijiao* by Chen Jianshan 陳兼善:

These two books are diametrical opposites: each represents [one of] the two schools of new and old logic. Mr. Chen writes according to the position of physiology. He offers a thorough analysis of *taijiao*. He severely scolds that which is absurd and groundless. Old Master Song in contrast takes Confucianism for ritual instruction, that is his sole understanding of “science.”<sup>73</sup>

For Huang Shi, East and West, Confucianism and science, were diametrical opposites. Song Jiazhao’s use of both the classical Chinese language and Confucianism marked his work as illegitimate and unscientific.

In spite of the New Culture rejection of Song Jiazhao’s era of hybrid science, it remains important on two accounts. First, even as books like Song Jiazhao’s lost out to the hegemony of New Culture writers in many of the intellectual journals, works like his continued to be printed, read and circulated throughout this period. Secondly, the very values that New Culture writers espoused – nationalism, eugenics, and self-strengthening through science – were first translated and popularized in Chinese intellectual discourse in late Qing and early Republican writings such as *Taijiao*. In fact, texts like these were so successful in their translation of modern words and systems of thought that they were seen as old and irrelevant to the younger generation of Chinese intellectuals in the 1930s. The systems of classical writing and learned metaphors that had once helped facilitate the translation of new knowledge now served as an obstacle for the modern young reader, making the text inaccessible to the next generation.

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73 Huang Shi, “Shenme shi taijiao,” pp. 19-28.

# 「胎教」：宋嘉釗所譯 下田次郎的《胎教》中所表現 的現代比喻和國際折中主義

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## 摘 要

當中國國家主義者致力於解決年輕的中華民國政治和軍事積弱問題時，有人建議，回歸古代中國胎教是強國健民的關鍵。這一關於新胎教的話語融入了清末民初有關科學、身體和國家的新討論中。本文致力於分析宋嘉釗於1914出版的《胎教》中有關胎教論述的現代闡釋，宋書本身為下田次郎1913出版著作的翻譯本。宋之《胎教》代表了19世紀末和20世紀初中國醫學的話語：它從日文翻譯而來，而日本正是當時現代婦科知識的一個重要來源；並且認為西方科學可與中國自身醫學和哲學想為相容。宋書以中國經典著作、日本江戶及明治時代的婦科著作，及西方科學為基礎，重新審問有關人類善惡的來源及胎兒跟子宮外世界關係的基本問題。因以中國傳統胎教為中心，宋得以介紹各種新興的歐日文化和科學概念，並且避免挑戰中國醫學和文化的根基。但是與此同時，通過介紹有關妊娠的新比喻，通過現代科學技術而得以用量化及視覺化的手段來展現人類生殖的過程，並且將女性生殖的身體與國家健康相聯繫，宋嘉釗也促進了現代中國對生殖和女性身體的瞭解。

**關鍵詞：**胎教、優生學、西方科學、下田次郎、宋嘉釗