

Daiwie Fu: A Brief Intellectual Biography

1, Brief introduction

Daiwie Fu, (傅大為 birth in 1953, Sep.) is a [Taiwanese](#) academic, the founding editor in chief of an international STS academic journal *East Asian Science, Technology and Society*, and a self-appointed radical intellectual. Former Distinguished Professor of the graduate institute of STS, now Emeritus Professor in National Yang-Ming Chao-Tong University. His research areas are: science and technology studies, gender and medicine in modern Taiwan, gender and science, East Asian STS, history and philosophy of science, and also history of Chinese science (mainly on [biji](#), *Mengxi Bitan* and the cultural history of science in the [Song Dynasty](#)), and recently he extends his research on actions of contemporary radical intellectuals. He published papers widely in Chinese, English, Italian, Korean, and Japanese. He published three academic books, a few books of social criticisms, and have founded several academic journals (including a radical journal in Taiwan, *Taiwan: a Radical Quarterly in Social Studies*) and several magazines in Taiwan. Ever since the lifting of Taiwan's martial law, he had participated in some social movements and has engaged in social and gender criticisms, on and off. But he also had plunged into Taiwan's university bureaucracy/structure as dean of humanities and social sciences for some years. Now he is an emeritus professor, a senior citizen of Taiwan, and is still looking for the next stage of actions and researches after a university life for more than 30 years.

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2, education.

B.S. Physics, National Tsing Hua University, Taiwan 1975.

M.A. Philosophy, Ohio State University, USA, 1980.

Ph.D. Philosophy, Columbia University, New York, USA, 1986.

3, teaching and university career

- Associate/Professor, History, Division of History of Science, and Division of STS. National Tsing-Hua University, Taiwan, 1986-2009.
- Professor, Institute of Science, Technology, and Society, National Yang-Ming University, Taipei, TAIWAN, 2007/09-2019.
- Dean, School of Humanities and Social Sciences, National Yang-Ming University, Taipei, TAIWAN, 2009-2015.
- Emeritus Professor, National Yang-Ming and Chao-Tong University, 2019~

- Visiting Scholars, in Harvard, SOAS, Maison des Sciences de l'Homme, and Univ. Paris 7, and EHESS.

4, areas of research, social studies, engagements

- Science and Technology Studies, Science, technology, and Society, and STS Studies of East Asia.
- Cultural History of Chinese Science in China's Middle Period (from Tang to Song), including biji Texts and especially *Mengxi Bitan*.
- History of Modern Medicine in Taiwan and its Gender/Sexuality Aspects.
- Gender & Science, and Gender & Medicine.
- History of postwar Taiwanese intellectuals.
- Social and political criticisms after the lifting of Taiwan's martial law.

Editor-in-Chief, *East Asian Science, Technology, and Society –An International Journal* (EASTS, Quarterly, published by Springer and later by Duke University Press from 2010), 2007 summer to the end of 2012.

President, *Taiwan: A Radical Quarterly on Social Studies*, (台灣社會研究季刊) 1988 to 1992?

Editor-in-Chief, *Philosophy and the History of Science*, 1995-1998 (Taiwan, Yuan-Liou)

5, a brief books list of academic works and social criticisms.

Knowledge Pursuits in Heterogeneous Spaces and Times: Collections of Papers in History and Philosophy of Science (1992 in Chinese 《異時空裡的知識追逐》東大), *Philosophy and Conceptual History of Science in Taiwan*, co-eds. with Lin Cheng-Hung (1992, Kluwer, BPS series), *Assembling the Asiatic New Body: Gender/Sexuality, Medicine, and Modern Taiwan* (2005 in Chinese 《亞細亞的新身體》群學), *A Genealogical History of STS and Its Multiple Constructions: To Weave an Extensive Network for Gazing upon the Modern Sciences* (2019 in Chinese 《STS的緣起與多重建構》臺大出版中心)。

Books/collections in social criticisms and edited collection including: *Radical Notes* (《基進筆記》1990 桂冠), *The Spaces of Knowledge and Power* (《知識與權力的空間》1990 桂冠), *Knowledge, Power, and Women* (《知識、權力、與女人》1993 自立), *Three Answers to the Question of What is Science* (《回答科學是什麼的三個答案》2006-09 群學), *Kuhn's Critical Reader in Taiwan* (2001 in Chinese 《孔恩評論集》巨流) co-edited with Chu Yuan-Hong.

His current middle-range research project is to write a book to describe and understand the actions and ways of doing things of two radical intellectuals he admires: Noam Chomsky and Michel Foucault. He would then reflect upon, together with his Taiwan experience as a radical scholar during the years after lifting the martial law, what could be constituted as a radical intellectual/scholar in the contemporary world.

Translations: Thomas Kuhn's *The Structure of Scientific Revolutions* (1985, with Cheng Shude, Wang daohuan, also the newest 4th edition in 2021)

6, influenced by (Yeh Hsin-yun 葉新雲, Li Chao 李喬, Edward, T. Ch'ien 錢新祖, Thomas Kuhn, Noam Chomsky, Michel Foucault, Evelyn F. Keller, Steve Shapin, Donald MacKenzie). And Influencing?... (to be filled out by others)

7, a life, works and debates

Daiwie Fu was born in Taiwan. His parents came from mainland China. His father was a two terms Committee Member of Taiwan's Examination Yuan. Fu's undergraduate was major in physics. He liked physics, chemistry, and biology in high school, but later in Tsing-Hua University his interests in literature and philosophy grew. Following Taiwan's student trends then to study abroad for Ph.D degree after graduation, he went to US graduate school in 1978, first in OSU to study logic and analytic philosophy and later in Columbia University to study history, philosophy and sociology of science. During his graduate studies, he encountered Kuhn's classic *The Structure* and was excited about it, as that book explained why Fu gradually distanced himself from physics and moved to history and philosophy of science. He also met Professor Robert Merton in Columbia for sociology of science and was encouraged to read Ludwig Fleck. As stayed in NYC for long, Fu was also politically enlightened, reading Chomsky and Said, and met Taiwanese political exiles and oversea activists. He got his ph.D degree with a thesis on history and philosophy of science of the 17th century Europe: the competition between Newtonian and Huygensian optics. Dr. Fu returned to Taiwan in 1986 and began to teach in National Tsing-Hua University, his alma mater. He became a professor in the institute of history, section of history of science, and also started promoting history of science as adjunct professor in many universities, as history of science was a new branch of history in Taiwan during late 80s.

Meanwhile, Taiwan's late 80s was a period of social movements and democratization. After continued challenges from Taiwan's liberals and

oppositional movements, KMT finally lifted its long term Martial-Law and freed the society from controls and repressions. Fu took the opportunities and actively participated in the democratization movements, and promoted radical scholarship. He wrote quite a few newspaper columns and published several small collections of social criticism. He had also spent time to gather Taiwan's radical intellectuals to establish a new journal, *Taiwan: a Radical Journal in Social Studies*, which had had strong impacts on social sciences and humanities graduate students of later generations. On the other hand, Fu's academic works continued and developed, ranging from history and philosophy of science to Taiwan's cultural and intellectual history. He also open a research path, informed by Fu's own philosophy of science, into Chinese history of science. Later his interests focused on a new reading and analysis of Song's *biji* (筆記) classic *Mengxi Bitan* (夢溪筆談), and he had made his name for this research in international circles of sinology. Fu's methodology of analyzing *biji* text is to understand one jotting of interest, not as isolated but as contextualized in the category (門類) of that jotting was embedded, and also to understand that category within the overall classificatory or taxonomic structure of categories of that *biji*. This research path seems to be inspired from late Kuhn and Foucault.

Fu later continued to develop his interest in social studies of science, which overlapped with Taiwan government's concerns with Taiwan's long term technology controversies in society, such as the long and intensive social debates about nuclear power. This brought about the formation of Taiwan's STS (Science and Technology Studies) intellectual movements. In cooperating with other like-minded intellectuals in social sciences and feminists, Fu had thus helped to establish an international journal, sponsored by Taiwan's ministry of science and technology: *East Asian Science, Technology and Society: an International Journal* (EASTS). Fu's engagements of STS in recent decades had also helped to form the first STS graduate institute, plus the first school of humanities and social sciences in National Yang-Ming University (Now National Yang-Ming and Chao-Tong University), also to establish Taiwan's STS Society, and finally accumulated to one of his major publications: *A Genealogical History of STS and Its Multiple Constructions*.

As a social-oriented scholar who was benefited early from Taiwan's democratization and its open-minded atmosphere, Fu also had the opportunities to explore and helped to open some new fields in Taiwan: gender and science, gender and medicine. Fu's interests and concerns in issues of gender and sex stemmed partly from his personal life and past marriage. During this process, he had invited or introduced important feminists of science studies like Sandra Harding and Evelyn Keller to Taiwan, and had also participated to establish a new Gender Studies Graduate Institute in Kaohsiung Medical University from 2002-04. Coupled with his inspiration of Foucault's works in sexuality, he had done some extensive research of gender and medicine in modern Taiwan, ranging from late Qing Taiwan (on

Dr. MaKay's Presbyterian religious medicine), colonial medicine under Japan, and post war Pax-American medicine. One of its focus was on the classic issues of competition and complement between midwives and obstetrician-gynecologists in Taiwan's modern history. Fu's contention was that there is a gender-biased medical structure in Taiwan's OBGYN-related medicine rooted in Taiwan's colonial modernity and perpetuated later, which can only be deconstructed and reformed by contemporary feminist-oriented movements.

There were naturally some debates concerning Fu's ideas and researches. From his earlier social criticism and his current book project research, he has been constructing a conception of "radicality" with a special Chinese phrase (基進). This conception was partly inspired by Foucault's works on historical marginalities, thus Fu had proposed a conception of "marginal struggle" to emphasize the importance of marginalities and its subversive power. It had gained some importance in the early phases of Taiwan's democratic movements. He advised activists engaging social criticism from the margins and not to be seduced to become part of the center: i.e., parliament or state. But this position was not popular among social activists who work with political oppositions and eager to become elected congressmen or ministers. Only by taking control of the state machine, they argued, can we really change or reform the society. A brief reflection of Fu's idea of radicality in the last three decades and his further theoretical notes was addressed in his "Radicality 2.0" (基進 2.0, 2019). Another debate, or at least tension, is between Fu's position concerning the relationship between philosophy of science (PS) and STS. Although coming to Taiwan's academic world as a philosopher of science, he later switched to history of science and especially to STS in his second half of academic life. This switch did not please some younger philosophers of science, who had considered Fu an important ally. Similar to the tension between PS and STS in Euro-America contexts, PS in Taiwan is often suspicious of STS being relativism and excessive constructivism, whereas STS is quick to dismiss PS as egg-headed academic and irrelevant to social issues of science, technology and medicine. Sometimes Fu indeed gave others impressions like that, but he also wrote papers concerning this tension and looked for ways to respect or complement each other, as can be seen from his 2013 paper on "boundary-crossings" and his new 2021 General Introduction to the fourth edition of Taiwanese translation of Kuhn's *Structure* Fu had helped to translate back to 1985.

Daiwie Fu has a son Allen Fu with his family in New York City, and Fu now lives with his partner Jui-Ch'i Liu in Danshui of New Taipei City, Taiwan.

8, Selected research works in four parts (for a fuller list, or a list of the most recent 15 years, look into Fu's materials in the website of STS graduate institute of Taiwan's NYCU)

- a), philosophy of science, and other social studies of Taiwan
 1. 1986, Sep., "Problem Domain and Developmental Strategies—a Study on the Logic of Competition and Development of Scientific Programs", Ph. D Thesis, Columbia University, New York, U.S.A. (Microfilms Inc., Account No. DA 058785. Ann Arbor, MI.)
 2. 1989, Jan, "The Dialectic of the History of Positivist Science as a Discourse: From Enlightenment in the West to Yin Hai-Kuang in Taiwan", *Taiwan: A Radical Quarterly in Social Studies*, Vol.1, 4, pp.11-56
 3. 1994, "H2O 的一個不可共量史—重論「不可共量性」及其與意義理論之爭”(“A History of Incommensurability for ‘H2O’”) 《第四屆美國文學與思想研討會論文選集》，哲學篇，中央研究院歐美所, pp. 95 - 122。
 4. 1995, Sep., “Higher Taxonomy and Higher Incommensurability” *Studies in History and Philosophy of Science*, Vol. 26, No. 3, pp. 273 - 294.
 5. 1997, 「百朗森林裡的文字獵人—試讀台灣原住民的漢文書寫」收入《身份認同與公共文化》("Words Hunters in the Jungle of BAI-LANG--- A Reading on the Chinese Writings by Taiwan's aborigines", originally published in *Con-Temporary* magazine, and later published in Oxford Univ. Press Hong Kong) 陳清橋編，1997，牛津大學出版社。pp.385-412。
 6. 2019, 「基進 2.0」("Radicality, 2.0") 《臺灣理論關鍵詞》史書美、梅家玲、廖朝陽、陳東升主編，頁 205-217 (聯經)
 7. 2021, “Kuhn in the humanities and social studies of science”, a General Introduction for the fourth edition of the Taiwanese translation of T. Kuhn's *The Structure of Scientific Revolution* (1962), published by Yuan-Liou, Taipei.

- b), Chinese history of science
 1. 1988, June, "A Study on the Historical Development and Transformation of ZHOU-BI (周髀) Research Tradition", *Tsing Hua Journal of Chinese Studies*, new series 18, no.1, pp.1-41.
 2. 1991, May, "Why Did Liu Hui Fail to Derive the Volume of a Sphere?" *Historica Mathematica*, Vol. 18, pp. 212 - 238.
 3. 1993-4, Nov., “A Contextual and Taxonomic Study on the 'Divine Marvels' and 'Strange Occurrences' in *Mengxi Bitan*”, *Chinese Science*, No. 11, pp. 3 - 35.
 4. 1998, July, “On Crossing Taxonomies and Boundaries: A Critical Note on Comparative History of Science and Zhao Youqin’s ‘Optics’”, *Taiwanese*

- Journal for Philosophy and History of Science*, No. 8, (1996-1997), pp.103-127.
5. 1999, "On Mengxi Bitan's [夢溪筆談] World of Marginalities and 'South-Pointing Needles': Fragment Translation vs. Contextual Translation" *De l'Un au Multiple. De la traduction du Chinois dans les langues Europeennes*, edited by Viviane Alleton and Michael Lackner, pp.175-201, Editions de la Maison de Sciences de l'Homme.
 6. 2001, "An Early Geomantic Theory and its Relation to Compass Deviation", Ch.11.2, History of Science in China Volume, *Encyclopedia for History of Science*, sponsored by Enciclopedia Italiana and Académie internationale d'histoire des sciences. (Italian version: *Storia Della Scienza*, Vol.II, Sezione I, La Scienza in Cina, ch.11.2, pp.119-25. Its English original manuscript is available upon request.)
 7. 2007, "The Flourishing of *Biji* or Pen-Notes Texts and its Relations to History of Knowledge in Song China (960-1279)", in a special issue "What did it mean to write an Encyclopedia in China?", pp.103-130, Hors Serie, *Extrême-Orient, Extrême-Occident*, 2007, Presses Universitaires de Vincennes.
 8. 2010, "When Shen Gua Encountered the 'Natural World'--- A Preliminary Discussion on *Mengxi Bitan* and the Concept of Nature", eds., by Hans Ulrich Vogel and Günter Dux, in *Concepts of Nature: A Chinese-European Cross-Cultural Perspective*, Brill: Leiden & Boston (2010), pp.285-309.
- c), gender and science, gender and medicine in modern Taiwan
1. 1996, April, (與王秀雲合作)「台灣女性科學家的九零年代風貌—試析「科學／女性／社會脈絡」諸相關領域」("Women Scientists in Taiwan and their Current Situations in Science, Gender, and Society"), *Taiwan: A Radical Quarterly in Social Studies*, no.22, pp.1-58。
 2. 1999, June, "融會在玉米田裡的「非男性」科學—關於「女性科學」的哲學論爭與新發展"("A Feeling for Corn Field in Keller's 'Non-Masculine' Science"), 《歐美研究》, 第29卷第二期, pp.1-40. 中研院歐美研究所。
 3. 2006, "CS, VBAC, and an Ironic Past in Taiwan's Obstetrics" in No.2, *Gender and Sexuality*, pp.25-41, CGS, International Christian University, Tokyo, Japan.
 4. 2009, "대만의 1세대 남녀 산부인과 의사: 식민지적 의료근대화와 젠더 구조" translated and revised from the SNUH symposium (2nd International Symposium: The First Generation of Native Doctors in East Asian Countries, Seoul National University Hospital) article "Two first-generation Obstetrics-Gynecology doctors in Taiwan: Colonial Medical Modernity and Gender Structure", *동아시아 1세대 의사들의 생애*, pp.200-257.
 5. 2017, 「『醫療化』論點的當代多元演化, 與來自性別與社會研究的商榷」(Contemporary multiple evolutions of the 'medicalization' thesis and

commentaries from gender and social studies of medicine) , 《東亞醫療史：殖民、性別與現代性》聯經出版社。

- d), science and technology studies, East Asian STS, genealogy of SSK/STS.
- 1. 2007, “How far can East Asian STS go?”, position paper, 1st issue of **EASTS** (*East Asian Science, Technology and Society: an International Journal*), Vol.1, no.1, pp.1-14.
- 2. 2013, 「定位與多重越界：回首重看STS與科哲」 (Positions and Multiple Boundary-Crossings ---A Reflection on the Relationship between STS and Philosophy of Science) , 《科技、醫療與社會》 , **No.16**. pp.49-102.
- 3. 2020, June “Emergence, Social and Cognitive Trends, and the Next Step? Two Decades of STS in Contemporary Taiwan,” **EASTS**, vol.14, no.2: 411-418
- 4. 2020, “A genealogical explication on the emergence and constructions of STS: a view from East Asia,” *Tapuya: Latin American Science, Technology and Society*, Vol.3, no.1, (pp.1-11)

(postscript: This brief intellectual biography was prepared and written with great helps from a friend, a former student 王珮瑩. Although it did not publish in a place we originally intended to, it at least goes and stays in Fu’s blog “New Radical Notes”, which is a fine place for locating Fu’s many short articles and social criticisms in recent years.)