

On the history and development of the Institute of Linguistics, Academia Sinica

Elizabeth Zeitoun and Shu-Chuan Tseng

Academia Sinica

With this introductory chapter, let us begin the celebration of the vigentennial anniversary of the Institute of Linguistics at Academia Sinica (2004–2024). This introduction will consider the early years, when we were part of the Institute of History and Philology (IHP), and the chapter will narrate the founding of the Institute of Linguistics in 2004 and its growing since then. Emphasis will be on describing our landmarks in various fields, and on introducing faculty members with their range of specialties.

Keywords: 20th anniversary, history, achievements, faculty, prospects

1. Introduction

The Institute of Linguistics at Academia Sinica (ILAS) was officially established on February 20, 2004, at the end of seven preparatory years. We are celebrating its 20th anniversary this year. we recall our founders, most of whom have by now either retired or passed away; and, as time goes by, has gathered newcomer colleagues into the fold. What follows is a brief review of the Institute's history, its achievements, and prospects for the future.

ILAS traces its origin back some ninety-six years to Mainland China when it was part of the Institute of History and Philology; and so we shall start with that stage of our history (§2). Then we turn to a description of current ILAS trends and strengths (§3), and sources of extra-mural funding (§4). After that, we shall outline our academic contributions at the national and international levels (§5), noting as well the Institute's social contributions (§6), with final consideration of our future prospects (§7).

2. Looking back at ninety years of history

In this section, we look back at ninety-six years of ILAS history, roughly divided into three periods: (1) The Linguistics Division as part of the Institute of History and Philology (1928–1997), (2) Preparatory office (August 13, 1997–February 19, 2004), and (3) Foundation and growing of ILAS (February 20, 2004 onwards), with possible overlaps.

2.1 The Linguistics Division as part of the Institute of History and Philology (1928–1997)

The origins of ILAS can be traced back to the very beginning of Academia Sinica, founded on June 9, 1928 in Nanjing (China),¹ and originally constituted of ten institutes (located in Beijing and Shanghai),² among which nestled the Institute of History and Philology (IHP). For about ten years before the outbreak of WWII, the Linguistics Division of the IHP (also known at one time as the 2nd Division) was home to renowned linguists and founders of modern Chinese linguistics, Yuen Ren Chao (1892–1982),³ Fang-Kuei Li (1902–1987), and Chang-pei Luo (1899–1958), joined in 1937 by T’ung-ho Tung (1911–1963), and later, Fa-Kao Chou (1915–1994) and Kun Chang (1917–2017).

During their careers, they pioneered investigations of languages belonging to various language families in Asia, including Sino-Tibetan, Austronesian, and Tai-Kadai; and they established a long tradition of fieldwork in China and later in Taiwan, primarily focusing on comparative, historical, and structural linguistics. Yuen Ren Chao is renowned for his work on all aspects of Chinese grammar, which culminated with the publication of his *Grammar of Spoken Chinese* (Chao 1968). Fang-Kuei Li is best known for his research on Archaic Chinese, comparative Tai, and Old Tibetan. In particular, in his evolutionary study on comparative Tai (Li 1977), he was the first to propose a reconstruction of Proto-Tai and discuss the relationships among Tai languages based on the comparative method. T’ung-ho Tung made far-reaching contributions on historical Chinese phonology, the contrastive study of Min dialects and the

¹ Nanjing was, at the time, the capital of the Republic of China.

² As of 2023, Academia Sinica encompasses 24 research institutes and 8 research centers.

³ Yuen Ren Chao was the first head of the Linguistics Division at the Institute of History and Philology.

Formosan languages, in particular Tsou. His grammar of Tsou (Tung 1964), published posthumously by the IHP, remains one of the best documented works to date.

Yuen Ren Chao left China and settled in the United States in the late 1930s, and Fang-kuei Li in the mid-1940s. They worked at various American universities until retirement. Chang-pei Luo stayed in China and served as the director of the Institute of Linguistics at the Chinese Academy of Sciences after WWII, until his death in 1958. T'ung-ho Tung followed other researchers and staff of the IHP⁴ who flew to Taiwan under the leadership of Ssu Nien Fu⁵ in the wake of the civil war in 1948–49. The IHP settled temporarily in Yangmei before Academia Sinica was transferred and permanently relocated to Nankang in 1954.

Many influential linguists were hired subsequently: Pang-hsin Ting in 1963 (elected Academician in 1986), Paul Jen-kuei Li in 1970 (elected Academician in 2006), Dah-an Ho in 1975 (elected Academician in 2010), Hwang-cherng Gong in 1977 (elected Academician in 2002). Pang-hsin Ting resigned from Academia Sinica in 1989 to teach in the United States afterwards, but remained an important figure, and was later one of the most eminent proponents for the establishment of the Institute of Linguistics at Academia Sinica.

The 1980s witnessed two noticeable changes: 1) two women, Chiu-yu Tseng in 1982 and Ying-chin Lin in 1988, were recruited in the Linguistics Division. Women now represent half of the faculty members of the Institute of Linguistics; 2) Academia Sinica launched a “Talent Cultivation Training Program” and the Linguistics Division recruited five of its members through this channel, Pei-chuan Wei in 1985, Jackson T.-S. Sun in 1986 (elected Academician in 2018), Ying-chin Lin in 1988, Su-ying Hsiao and Elizabeth Zeitoun in 1992, to strengthen research on different language areas (Sino-Tibetan, Austronesian, Mongolic, and Tungusic)⁶ as well as diverse linguistic fields (e.g., historical linguistics, documentary linguistics) which still have an impact till this very day.

⁴ Of the original 10 institutes that constituted Academia Sinica, only two, the Institute of History and Philology and the Institute of Mathematics, were re-established in Taiwan in 1949.

⁵ Ssu-nian Fu was born in 1896. As a Chinese historian and very charismatic figure, he was one of the founders of Academia Sinica and the director of the Institute of History and Philology upon its establishment in 1928.

⁶ Mongolic and Tungusic languages were at the time referred to as “Altaic” languages and this is the term we use here though it might not sound adequate now.

2.2 Preparatory office (August 13, 1997–February 19, 2004)

As of 1992, the Linguistics Division (or 2nd Division) was made up of twelve members.⁷ As a response to the growing interest and profound transformations in modern linguistics, the emergence of linguistic programs in Taiwan in the 1970s and 1980s, the setting up of a Linguistics Section (as part of the Department of Humanities and Social Sciences) at the National Science Council (later renamed the Ministry of Science and Technology and now known as the National Science and Technology Council)⁸ and the premises of interdisciplinary research (with the pioneering work of Chiu-yu Tseng and Chu-Ren Huang), the members of the Linguistics Division took the categorical decision to depart from the Institute of History and Philology. It had become clear that the creation of a dedicated institute of linguistics would strengthen interaction between linguists while intensifying peer stimulation, foster national and international cooperation, while enhancing scholarly exchanges, increase academic productivity by allowing the recruitment of more faculty members, thus broadening the coverage of research fields, topics and languages. It would eventually play an important role in the launch of the Linguistic Society of Taiwan in 1998 and the release in 2000 of the very first (and much-awaited) linguistic journal in Taiwan dedicated to Asian languages, *Language and Linguistics* (and its related monograph series), constituting one of the best options for the publication of linguistic papers and books at the national level.

In the planning for this Institute, members of the Linguistics Division decided to rename their unit “Institute of Linguistics”, a process taking over two years, and on August 13, 1997, the preparatory office was officially launched. The two directors of the preparatory office were Paul Jen-kuei Li (1997–2000) and Dah-an Ho (2000–2004).

In the years that followed, new colleagues were recruited, different research fields started to develop including speech corpora as well as psycho- and neuro-linguistics, consolidating the major strength of ILAS. ILAS can thus be characterized for its fundamental research of languages of Taiwan, Southeast Asia, East Asia, and the Pacific Region through mostly first-hand

⁷ Members of the Linguistics Division included Paul Jen-kuei Li, Hwang-cherng Gong, Da-an Ho, Chiu-yu Tseng, Pei-chuan Wei, Jackson T.-S. Sun, Ying-chin Lin, Chu-Ren Huang, C.-C. Jane Tang, Randy LaPolla (who left for Hong-Kong in 1995 on a two-year leave and resigned from Academia Sinica in 1997), Su-ying Hsiao, and Elizabeth Zeitoun.

⁸ We are referring to the exact titles of the institutions to avoid unwarranted anachronisms.

data collection and analysis on a wide range of research fields, including phonetics, phonology, morphology, syntax, semantics, historical linguistics, psycho- and neuro-linguistics and computational linguistics.

Since 1995, interest groups on language typology, archiving and corpora, as well as phonetics and phonology have been formed, dismantled and remodeled, complementing labs that were established at different times: the Phonetics Lab was established in 1985 and directed by Chiu-yu Tseng until her retirement in 2018; the Brain and Language Lab created in 2002 was supervised by Chia-Ying Lee, and later transformed as part of the Cognitive and Neuro-linguistics Lab (see §2.3).

2.3 Foundation and growing of ILAS (February 20, 2004 onwards)

In February 20, 2004 the Institute of Linguistics was formally established after just six and a half years of preparation. The first director was Chin-Chuan Cheng (2004–2006), followed by Dah-an Ho (2006–2008), Jackson T.-S. Sun (2008–2011), Chiu-yu Tseng (2011–2017) and Jowang Lin (2017–present).

While first housed in the Institute History and Philology, the Institute of Linguistics moved to its permanent quarters at the very beginning of 2007, in the Building for the Humanities and Social Sciences (BHSS).

Progressively, labs and interest groups were reorganized in three divisions, the Digital Language Resource Division, the Speech Technology Division, and the Cognitive and Neuro-linguistics Lab in order to provide more technical support to ILAS members and conduct more effective interdisciplinary research. Thus, while continuing to adopt traditional analytical techniques rooted within generative and functional frameworks, language typology and historical linguistics, interdisciplinary research has been developed to provide all kinds of language resources through computational linguistics and modeling and understand the workings of the human mind through psycho- and neuro-linguistic experiments. ILAS members keep on working and expanding research traced by earlier faculty members mentioned in §2.2 as well as prominent affiliated correspondents, including Chin-Chuan Cheng (elected Academician in 2000), Tsu-Lin Mei (elected Academician in 1994), Ovid J.-L. Tzeng (elected Academician in

1994), William S.-Y. Wang (elected Academician in 1992), and C.-T. James Huang (elected Academician in 2016).

Since its inception, the Institute of Linguistics has also been playing an active and preeminent role in the linguistics community of Taiwan. Before the 2019 novel coronavirus (COVID-19) pandemic slowed down academic activities between 2020 and 2022, it frequently hosted international symposiums, conferences and workshops — academic events resumed normally in 2023 — and invited renowned scholars for periods running from a few weeks to a few months. Faculty members regularly teach at national universities and have offered classes at Summer Linguistic Institutes organized by the Linguistic Society of America (§5.3.2). They are also involved in the development of textbooks and the preparation of national language proficiency tests and whenever necessary provide professional consultation in committees involved in language policies (§6.4).

3. Current trends and strengths of the Institute of Linguistics

In this section, we focus on the research trends and strengths of the Institute of Linguistics over the past twenty years, from 2004 onwards, including historical linguistics (§3.1), functional and documentary linguistics of Sino-Tibetan, Austronesian, Altaic, Kra-Dai, and Austroasiatic languages (§3.2), formal linguistics (§3.3), and interdisciplinary research (§3.4).

3.1 Historical linguistics

As mentioned above, Pei-chuan Wei joined the Linguistics Division at the Institute of History and Philology in 1985, and retired from the Institute of Linguistics in September 2023. For nearly 40 years, he worked (and is renowned) for his work on Chinese historical linguistics, developing the field of historical syntax and tackling a wide range of topics from negation to quantification. He has also built up the Archaic and Early Chinese Corpora (see §3.4.1).

Jackson T.-S. Sun has made notable contributions to diachronic Sino-Tibetan linguistics. He was the first to conduct a thorough phonological reconstruction of Tani languages and propose it as an independent Tibeto-Burman branch. Drawing on primary fieldwork data, he

has also established the Rgyalrongic languages as a distinct Qiangic subgroup on evidence of shared idiosyncratic morphology and shown the innovations of Tibetan stem alternations.

Min-hua Chiang was recruited in 2003 and has been working on Sinitic phonology, Sinitic comparative linguistics and Sinitic comparative grammar. She focuses on Hakka and related dialects/languages such as Gan, Min, Wu, and Cantonese. Min-hua Chiang has been exploring new topics in the field of Hakka grammar, in particular in trying to show grammatical variations between northern and southern Sixian, Hailu, and Dongshi Hakka while tracing back to their origin.

Rui-wen Wu joined the Institute of Linguistics in 2007. His major research interests focus on historical linguistics, in particular with respect to the study of Min (including Southern Min, Eastern Min, and Central Min). He has been working on the historical reconstruction of Min phonology and on a synchronic analysis of Eastern Min grammar. In recent years, he has also expanded his research by carrying out a comparative study of Hakka, Xiang, Jianghuai Mandarin, in order to deepen his understanding of the relationships between ancient and modern Chinese dialects.

Yen-ling Chen was hired at ILAS in 2021. As a historical linguist, she is a specialist of the Ong-Be languages which belong to the Kra-Dai language family, one of the major language families in East and Southeast Asia with several primary branches and a hundred of languages, following a tradition established by Fang-Kuei Li (see §2.1).

It is clear that historical linguistics at ILAS represents an important part of the research of at least half of the faculty members and builds on a long tradition. Research on contemporary languages often incorporates comparative perspectives in order to determine how a specific language has changed. Topics that are covered in historical linguistics include a wide range of aspects (e.g., reconstruction of the phonology, lexicon and morphology of proto-languages, subgrouping, changes in phonology and syntax, language contact and language change) and subsume all the languages investigated at ILAS.

3.2 Functional and documentary linguistic studies on Sino-Tibetan, Austronesian, Altaic, Kra-Dai and Austroasiatic languages

Following the tradition established with the foundation of the Linguistics Division at the Institute of History and Philology, ILAS members have been documenting and investigating various languages in and around Taiwan, belonging to the Sino-Tibetan, Austronesian, Altaic, Kra-Dai, and Austroasiatic language families. While doing so, they have also engaged in cross-linguistic comparisons, taking part in discussion on typology while being also actively involved part in language preservation and revitalization.

3.2.1 Research on Sino-Tibetan languages

Jackson T.-S. Sun was hired at the Linguistics Division, Institute of History and Philology in 1986. For the past thirty years, he has been focusing on Tibetic and Rgyalrongic languages of Sichuan, where he has conducted synchronic as well as diachronic studies. Besides his contributions in historical linguistics (see §3.1), his research encompasses different fields: phonetic and phonology (e.g., phonemic uvularization and pharyngealization in Qiang and Northern Horpa vowels), morphosyntax (e.g., evidentials in Tibetic, irrealis marking and complementation structures in Rgyalrongic) and typology (e.g., tonogenesis types across Tibetic; generic-person marking across Rgyalrongic).

Ying-chin Lin was recruited in 1988 and has been working on two different language families, Sino-Tibetan and Austronesian (see §3.2.2). Her primary research interests lie in Tibeto-Burman comparative linguistics. She has been working on Muya (a Qiangic language) and Tangut (an extinct language, once spoken in northwestern China), for which she is writing a reference grammar. She also worked on Archaic Chinese and worked on Chinese historical phonology.

Jonathan Evans joined ILAS in 2003. His primary field of research is phonetics and phonology, but he has also been working on descriptive syntax and historical reconstruction of the Qiang languages (in southwest China). Recently, he has been working on Tibeto-Burman languages of Northeast India (e.g., Dimasa).

3.2.2 Research on Austronesian languages

Under the guidance and leadership of Paul Jen-kuei Li, who worked on a great majority of Formosan languages, the number of scholars investigating Formosan languages has greatly increased in the past twenty years and ILAS plays a prominent figure in the study of Formosan languages in terms of the coverage of languages studied and the breadth of research topics. The maturation of their research has culminated with the publication of the *Handbook of Formosan Languages: The Indigenous Languages of Taiwan*. Faculty members have all contributed to the description, documentation and analysis of the Formosan languages from different perspectives, working on an array of topics covering phonology, morphology, syntax, semantics and historical linguistics. They have been collaborating with local communities to document endangered languages in order to preserve the cultural heritage and promote linguistic diversity.

Ying-chin Lin worked on the phonology of Puyuma, wrote a sketch grammar of Pazeh and has focused on the documentation and revitalization of Formosan languages.

Elizabeth Zeitoun was recruited in 1992 after having received an MA from National Tsing Hua University as part of an Academia Sinica training program (see §2.1). Henry Y. Chang was hired in 2003, later joined by Stacy Fang-ching Teng in 2008, Hui-chuan J. Huang in 2010, Sihwei Chen, and Edith Aldridge in early 2019. C.-C. Jane Tang⁹ also worked over 20 years on the Formosan languages and though Paul Jen-kuei Li retired in 2006, he has been continuing to work extensively on extinct and endangered Formosan languages.

Elizabeth Zeitoun has carried in-depth research on Rukai and Saisiyat and less extensively on Thao, Pazeh-Kaxabu, and Bunun. Stacy Fang-ching Teng has been working extensively on the morphosyntax of the Puyuma dialects and both have collaborated on the synchronic investigation of Kanakanavu and Saaroa. They have also contributed to the reconstruction of PAN morphology through the reconstruction of a number of morphemes. Hui-chuan J. Huang has been working on the phonology of Formosan languages. She has conducted extensive research on diverse dialects of Atayal and Bunun. Her investigations have centered around the phonemic status of glides, sonority hierarchy, and the complexities of schwa.

⁹ Refer to §3.3.1 for a description of the work of C.-C. Jane Tang, Henry Y. Chang, Sihwei Chen, and Edith Aldridge whose work is framed in formal syntax and semantics.

3.2.3 Research on Altaic, Kra-Dai and Austroasiatic languages

Su-ying Hsiao was hired in the Linguistics Division at the Institute of History and Philology in August 1992 to work on “Altaic” linguistics. Until her retirement in August 2022, her research focused on Mongolian (Mongolic) and Manchu (Tungusic), as well as Taiwanese Southern Min morphosyntax.

Yen-ling Chen, besides her work on historical linguistics (see §3.2.1), has also worked on language contact, in particular with respect to Vernacular Atayalic Japanese, the so-called “cre-ole” spoken in northeastern Taiwan.

Jackson T.-S. Sun has documented the vocabulary, sound systems and phonological history of Plang, Va, and Lavña, three little-researched Waic languages under the Palaungic branch in Austroasiatic.

3.2.4 Role and meaning of ILAS in the study of Sino-Tibetan, Altaic, Austronesian, Kra-Dai, Austroasiatic

ILAS members working on Sino-Tibetan and Austronesian languages have continued to make long-lasting contributions to the field by undertaking textual work and carrying fieldwork on over a dozen Tibeto-Burman languages and nearly all the Formosan languages. They have broadened the array of research topics and perspectives, have been proposing reconstructions and have made revisions to phylogenetic classifications, making Taiwan a recognized hub of Sino-Tibetan and Austronesian linguistics.

In the field of Altaic (Mongolic and Tungusic) linguistics, Su-ying Hsiao is well-known for the online corpora she built up on Mongolian and Manchu, among others, Late and Modern Mongolian Corpora and the Mandchu-Mongolian Laoqida Parallel Corpora. Fang-Kuei Li, the founding father of the Kra-Dai studies, had no successors in Taiwan. Yen-ling Chen, who has done fieldwork on ten Ong-Be varieties, has taken up the torch to continue his work and proposed a reconstruction of Proto-Ong-Be phonology and internal subgrouping.

3.3 Formal linguistics

Theoretical linguistics has always been a substantial part of ILAS and has been adopted in the research of the Formosan languages and Mandarin Chinese, many researchers working in a contrastive perspective.

3.3.1 Formosan languages in a formal perspective

C.-C. Jane Tang was recruited in 1991 in the Institute of History and Philology. With the development of Formosan linguistics, she started to concentrate on issues related to nouns phrases and related constructions, including noun phrase markers, prepositional phrases, nominalization, and complementizers (some of which come from case markers) in Paiwan. Many of her studies were written in a cross-linguistic perspective by comparing the Formosan data with Mandarin Chinese and English.

After having investigated Seediq, Kavalan, and Paiwan, Henry Y. Chang started concentrating on Tsou (and since the late 2010s Amis) morphosyntax, examining noun phrases (in particular, case markers and nominal aspect), verb phrases, especially verb sub-categorization, causative verbs and the status of the object, voice, transitivity, and applicative markers, adverbial verbs and adverbial compounds etc.

Sihwei Chen has been carrying research on temporal and modal semantics in Atayal, Bunun, and Paiwan. She has also started investigating the use of final particles in Atayal.

Edith Aldridge has brought theoretical syntax and historical linguistics together in her cross-linguistic research, which centers around issues on ergativity in Archaic Chinese and in the Formosan languages. In particular, she previously worked on the synchronic grammars of Seediq, Atayal, and Paiwan. In recent years, her attention has turned to Rukai and its implications for understanding the diachronic development of Austronesian languages, proposing a new reconstruction of several aspects of PAN morphosyntax based on natural processes of syntactic change.

3.3.2 Mandarin Chinese in a formal perspective

Chih-hsiang Shu and Wei-wen Roger Liao were recruited in 2011 and 2013, respectively, and have been working on syntax-semantic interface. Chih-hsiang Shu¹⁰ researched on topics related to the role of directionality parameters in syntax, movement structures, and (contrastive) focus while Wei-wen Roger Liao has been investigating various topics on Mandarin Chinese, including topic structures, contrastive dislocations, purposive constructions, bare numeral phrases, aspect (and in particular, durative phrases).

Jo-wang Lin was hired at ILAS in 2014 and has continued to conduct significant research on tense, aspect, quantifiers, *wh*-questions, and relative clauses in Mandarin Chinese.

3.3.3 Role and meaning of ILAS in the field of formal linguistics

Theoretical linguistics provides formal metalinguistic frameworks and tools to analyze and comprehend the structure, function, and patterns of human language. The endeavors of ILAS members in the area of formal linguistics have highlighted the importance of the amassed data on Mandarin Chinese and Formosan languages to scholars worldwide.

For the past ten years, ILAS has tried to strengthen the study of theoretical and formal linguistics by recruiting five linguists working on Mandarin Chinese and Formosan languages and specializing in formal syntax and semantics. They offer different perspectives on a wide array of topics by identifying features and constraints that exist across languages and complement the work carried out by functional linguists in the institute.

3.4 Interdisciplinary research

Interdisciplinary linguistic research began quite early, in the mid- and late-1980s, while colleagues were still working in the Linguistics Division of the Institute of History and Philology.

¹⁰ Chih-hsiang Shu left Academia Sinica in August 2021.

During the course of its 20 years of development, ILAS has gradually established the foundations that reflect its multidisciplinary research structure. It has also matured with respect to its early development of computational and psycho- and neuro-linguistic research.

3.4.1 Computational linguistics

Chu-Ren Huang, who left Academia Sinica in 2010, was undoubtedly one of the leading, representative figures in computational and corpus linguistics, setting the foundation for the development of the Academia Sinica Balanced Corpus (henceforth Sinica Corpus) and the Association for Computational Linguistics and Chinese Language Processing in the 1990s, and having a profound impact on the research era of Chinese language processing in Taiwan since then. The Sinica Corpus was, in the 1990s, the first proportionally sampled Chinese corpus with texts of different lengths and genres and part-of-speech tagging. With Pei-chuan Wei, he co-founded the Corpus Research Group, which focused on compiling and building corpora of Modern Mandarin Chinese and Archaic Chinese. While the Early-Modern Chinese Lexicon aims at constructing a knowledge system of Chinese language evolution from the early modern to the modern era, the Archaic Chinese Corpora offers numerous pre-modern Chinese texts from the Western Han dynasty with linguistic information, word segmentation and lexical class labels.

Importantly, in 2005, Chu-Ren Huang joined the Taiwan International Graduate Program (TIGP) to promote cooperation with top national universities in Taiwan in computational linguistics and establish Chinese processing programs in order to train young generations in the field of computational linguistics at the national and international levels.

3.4.2 Corpus linguistics, computational modeling and acoustic investigations

Ahead of the establishment of the Preparatory office of ILAS in 1997, Chiu-yu Tseng established the Phonetics Lab and conducted corpus-based research on prosody and speech synthesis with computer scientists from renowned universities. After having worked in the 1990s on tones and aphasia and its impact on phonetic production, Chiu-yu Tseng worked for

over a decade on prosodic features and their functions in fluent continuous speech, constructing the Sinica COSPRO (Mandarin Continuous Speech Corpora) and Toolkit. She also collaborated to an international project on Asian English Speech Corpus (AESOP), examining L2 English produced by Taiwan Mandarin speakers from 2009 until retirement and collecting over 800 hours of speech corpora.

Shu-Chuan Tseng joined ILAS in 2000, and adopted corpus-based and quantitative research methods and expanded it to computational analysis and machine learning modeling. Her research has focused on phonetic variation and discourse representation of conversational spontaneous speech. She has created and released a variety of spoken Chinese language resources, including conversational corpora, sociophonetic interviews, child speech corpora, spoken wordlists, core vocabulary and automatic phone aligner tools that produce multi-layer phonetic and lexical linguistic information, moving towards technology-assisted research and application of speech acquisition. She has also carried out projects on speech analysis of children with normal hearing and hearing impairment.

Sheng-Fu Wang was hired at the end of 2022. He is bringing novel perspectives to laboratory phonological research on Taiwanese Southern Min by applying innovative computational methods to large-scale speech datasets.

3.4.3 Psycho- and neuro-linguistics

Early in the 1990s, Ovid J.-L. Tzeng established the foundations of neuro-linguistic research on Mandarin Chinese in Taiwan and this line of research has also blossomed at ILAS. Ovid J.-L. Tzeng and Chia-Ying Lee founded the Cognitive and Neuro-linguistics Lab. They have been conducting intensive research to study the cognitive and neural mechanisms behind language acquisition and reading comprehension, as well as the causes and consequences of language impairment and dyslexia, with close collaborations with hospitals and domestic and international universities, with the aim to establish a comprehensive neurocognitive model for Chinese language processing.

3.4.4 Role and meaning of ILAS in interdisciplinary research

While interdisciplinary research was previously treated at the margin of linguistics, it has become clear that technology-driven quantitative methodologies fully belong to the field of linguistics and complement nicely other fields such as formal linguistics, functional linguistics, comparative linguistics, sociolinguistics etc.

Faculty members have been using computational tools, natural language processing, and machine learning techniques to analyze linguistic data, automate annotation processes, and develop language resources. By integrating technological advancements into their research, they have contributed to advancements in language technology and applications.

4. Extramural funding: Research stability and sustainability

The Language Archives Project, carried out from 2000 until 2013 was the largest project ever conducted at ILAS in terms of (1) number of PIs, (2) project duration and (3) funding. Seven ILAS members participated in the project which was divided into two sub-projects: Chinese Language Archives and Formosan Language Archives. Accounting for written and spoken language documentation and the construction of language resources and query systems, the Language Archives Project dealt with modern and ancient Mandarin Chinese, Taiwanese Southern Min and Hakka as well as Formosan languages. This project laid the groundwork for the digitalization of corpora with the constructions of annotated language resources for documentation (based on first-hand data collection) and linguistic research. ILAS's Digital Language Resource Division has been constantly working on the maintenance and extension of the outcomes of the Digital Language Archives Project.

ILAS members have also been able to carry out “Excellence projects”, “Thematic projects”, and “Investigator Award projects” sponsored by Academia Sinica which provide additional long-term financial supports for cultivating potential new research areas. Over the years, ILAS members have also conducted projects granted by the National Science and Technology Council of Taiwan.

5. Academic contributions at the national and international levels

ILAS comprises a group of faculty members with unique expertise in various fields of linguistics, and together they have made many different contributions at the national and international levels.

5.1 Language and Linguistics

Language and Linguistics is an international quarterly journal that aims at promoting theoretical and empirical linguistic studies on Asian languages. In addition to regular issues (with 6 or 7 paper per issue), 26 special issues have been published since 2000 covering a wide variety of themes and topics. The *Language and Linguistics* monograph series includes 76 monographs comprising thematic volumes on different Asian languages, post-conference proceedings, texts, dictionaries, collected papers and translated books have been published.

As mentioned in §2.2, *Language and Linguistics* was launched in 2000, with Hwang-cherng Gong as the first Editor-in-Chief and Dah-an Ho as the Associate Editor. From 2002 to 2008, Dah-an Ho was the Editor-in-Chief, with Elizabeth Zeitoun as the Deputy Editor-in-Chief between 2007 and 2008. Between 2008 and 2013, C.-C. Jane Tang was chosen as the Editor-in-Chief, and Elizabeth Zeitoun as the Executive Editor. Since 2013, *Language and Linguistics* has been managed by an Editor-in-Chief (C.-C. Jane Tang 2013–2016, Jo-wang Lin 2017–2019, Henry Y. Chang 2020–2022, Edith Aldridge 2023–present) with internationally renowned scholars serving as Associate Editors.

Under the leadership of Dah-an Ho, *Language and Linguistics* was included in the LLBA in 2003, the MLA and A&HCI citation indexes as well as the Social Science Citation Index database (SSCI) in 2008. It was indexed by ProQuest and Elsevier in 2012. *Language and Linguistics* was published in partnership with the international publisher SAGE from 2014 to 2016 (Volumes 15–17) and since 2017 (Volume 18), with John Benjamins Publishing Company. Since 2022, *Language and Linguistics* is an open access journal.

5.2 Linguistic Society of Taiwan

In 1998, Paul Jen-kuei Li was elected as the president of the Preparatory Office of the Linguistic Society of Taiwan (LST), in which he had stood as one of the principal founders. Chu-Ren Huang served as LST's 4th President, and Su-ying Hsiao its 11th President.

Since its inception, ILAS has consistently supported LST, not only through academic contributions by ILAS members, but also through administrative management of membership affairs, co-hosting conferences, tutorials, and linguistics camps. Paul Jen-kuei Li was granted a Life-time Achievement Award in 2005, Hwang-cherng Gong in 2006, Dah-an Ho in 2009, Chin-chuan Cheng in 2011, C.-T. James Huang in 2014, Pang-hsin Ting in 2016, Chiu-yu Tseng in 2020, and Jackson T.-S. Sun in 2022.

5.3 Academic participation in Taiwan and abroad

ILAS has been fostering a supportive academic environment by organizing conferences, sponsoring training programs, being engaged in student supervision and teaching while establishing collaborations at the national and international levels.

5.3.1 Organization of conferences

For the past twenty years or so, ILAS has continued its long tradition in organizing symposiums, conferences, workshops, courses that have helped promote the different fields which ILAS members are specialized in. It has held several first-tier international conferences in collaboration with universities and associations, including the International Conference on Austronesian Languages (ICAL) in 1997 and 2015, the Austronesian Formal Linguistics Association (AFLA) in 2012 (AFLA-19) and in 2018 (AFLA-25), the Workshop on Sino-Tibetan Languages of Southwest China (STLS (2008)), ROCLING (1988, 1989, 1993, 1997, 2004), and COLING (2002). It also held the Young Scholar Symposium in 2018, co-sponsored by the Li Fang-Kuei Society. The biennial International Symposium in Chinese Language and Linguistics (IsCLL), initiated and hosted by ILAS, and held every two years between 1990 and

2016, used to be one of the largest domestically held linguistics conferences. It featured a wide diversity of themes related to languages of China and Taiwan. Following IsCCLL, the first ILAS Annual Linguistics Forum (ILASALF) took place in 2018. Since 2021, it is being held every other year; the official title of this conference has been changed to Academia Sinica Linguistics Forum (ASLF).

5.3.2 Training programs, supervision and teaching

ILAS has been sponsoring all kinds of training programs at the post-MA level, PhD students, PhD candidates and Post-doctoral fellows that equip students with a strong foundation in linguistic theory, research methods, and data analysis. Faculty members have been (co-)supervising MA and PhD students in universities in Taiwan and abroad (in Europe and Australia). A majority of faculty members regularly offer specialized courses, seminars at national universities in northern Taiwan (National Taiwan University, National Taiwan Normal University, National Chengchi University, National Central University, National Yang Min Chiao Tung University, National Tsing Hua University) and research opportunities. A few have also given lectures at different Summer Linguistic Institutes organized by the Linguistic Society of America.

5.3.3 National and international collaborations

ILAS members have very close ties to local and international scholars, collaborating on various research projects with visiting scholars from universities and research institutes in Taiwan and abroad. In the past, ILAS established long-term reciprocal visits and research collaborations with the National Institute for Japanese Language and Linguistics, the Institute of Linguistics of the Chinese Academy of Social Sciences, and the Center for Chinese Linguistics of Peking University, though some of these cooperation programs have been disrupted by COVID-19.

6. Social contributions

Linguists at ILAS have contributed in many ways to the advancement of the study of language in the Taiwanese society. Since the early 1990s, institute members have collaborated with educational institutions, government agencies, and language communities to develop language-related policies, language learning resources, and initiatives that promote linguistic diversity.

6.1 Open House

Under the impulse of former Academia Sinica President, Yuan Tseh Lee, and in order to bring research closer to the public and popularize both hard and soft science, Academia Sinica has been holding the “Open House” every year since 1998. Since October 1999 (just a month after the devastating 7.3 earthquake on September 21, 1999), ILAS has been engaged in Open House activities. Each year, it features different themes and research perspectives to allow different subfields of linguistics to be more accessible to the general public.

6.2 Dissemination of linguistic knowledge

Many Formosanists have written reference and/or sketch grammars, edited teaching materials and texts, co-worked with native speakers to edit (online) dictionaries,¹¹ and are engaged in teaching grammar to heritage speakers. Several faculty members have participated in Professor Paul Jen-kuei Li’s project in translating Blust (2013) to Chinese, a monumental work on Austronesian languages of over eight hundred pages. Having been published by Linking Publishing Company in 2022, this book contributes to raising public awareness and understanding of Austronesian languages.

For years, faculty members have also written more popular science articles in Chinese for Academia Sinica newsletter which later became the e-newsletter entitled 研之有物 to promote knowledge on language and linguistics.

¹¹ Online dictionaries have been sponsored by the Council of Indigenous Peoples.

6.3 Learning applications

Shu-Chuan Tseng has completed a normative dataset of Chinese-speaking preschoolers that includes accuracy and acceptability judgement for clinical and machine learning applications of children's phonological development.

For the past ten years or so, Chia-ying Lee has developed several APPs for children and elderly, including the “Zhu-Yin adventurer” APP and the “Harvest season” APP to assist Chinese literacy acquisition and the “Cookies for the brainy day” APP, to support cognitive training.

6.4 Collaborations with government agencies

Dah-an Ho, Jackson T.-S. Sun and Jo-wang Lin served as conveners of the Linguistics Division of the National Science Council.¹²

Some faculty members have also taken part in program reviews of universities and primary schools where “local” languages are being taught, and served as consultants at different governmental institutions (Taipei City Aboriginal Council, Council of Indigenous Peoples of the Executive Yuan, Ethnic Affairs Commission of Inner Mongolia, Ministry of Education, Ministry of Culture).

They are regularly consulted on several projects initiated by the Council of Indigenous Peoples, the Foundation for the Development of Indigenous Languages, the Hakka Affairs Council, the Ministry of Education and share their expertise on corpora and writing systems.

They have also been helping to ensure the quality and accuracy of national tests for Formosan languages and Hakka.

¹² For the different names that have changed over the years of this institution, please refer to §2.2.

7. Prospects

As linguistics evolves over time, new frontiers of interdisciplinary and quantitative research are flourishing. Faculty members at ILAS remain committed to advancing diverse domains. This includes conducting thorough language surveys and documentation, delving into theoretical explorations of language, and exploring the potential applications of linguistic theories.

A key aim of ILAS is to construct models or theories that capture the fundamental properties of language so as to make linguistic research at ILAS ever more significant. Faculty members will collectively contribute to ILAS's growth, reputation and impact in the field of linguistics by continuing to build on the strengths in empirical and theoretical linguistics outlined above. They will widen the array of studies in core linguistic, broaden interdisciplinary research, adapt to technological advancements, participate in collaborative research initiatives, and engage in public activities. However, as ILAS adapts to a rapidly changing research environment, it will ensure that new advancements in methodology and technology will always be firmly grounded in the understanding of language brought about by core linguistic research.

References

- Blust, Robert. 2013. *The Austronesian languages*. Revised edn. (<https://openresearch-repository.anu.edu.au/bitstream/1885/10191/6/Blust-2013-AustronesianLanguages.pdf>) (Accessed 2023-10-14.) (see the Chinese edition published in 2022 under the title: 南島語言, translated by Li, Paul Jen-kuei & Chang, Henry Y. & Lee, Amy P. & Yeh, Marie M. & Huang, Hui-chuan J. & Teng, Stacy Fang-ching. Taipei: Linking.)
- Chao, Yuen Ren. 1968. *A grammar of spoken Chinese*. Berkeley: University of California Press.
- Li, Fang Kuei. 1977. *A handbook of comparative Tai*. Honolulu: University Press of Hawaii.
- Tung, T'ung-ho. 1964. *A descriptive study of the Tsou language, Formosa* (Institute of History and Philology, Academia Sinica, Special Publications 48). Taipei: Institute of History and Philology, Academia Sinica.

Online resources

Institute of Linguistics

<http://www.ling.sinica.edu.tw>

Language and Linguistics

<http://www.ling.sinica.edu.tw/item/zh-tw>

Online corpora

<https://www.ling.sinica.edu.tw/main/zh-tw?code=list&ids=23>

Authors' addresses

Elizabeth Zeitoun

Institute of Linguistics, Academia Sinica

No. 128, Sec. 2, Academia Road

Nangang Dist., Taipei City 11529

Taiwan (R.O.C.)

hsez@gate.sinica.edu.tw

Shu-Chuan Tseng

Institute of Linguistics, Academia Sinica

No. 128, Sec. 2, Academia Road

Nangang Dist., Taipei City 11529

Taiwan (R.O.C.)

tsengsc@gate.sinica.edu.tw