Welcome to the Linguistics Department’s Spring, 2019, Newsletter. The focus of the spring issue is to get you a chance to see some of the work that individual members of the department are doing in a more up-close and personal manner. The pictures above are from a linguistic outreach event for very young scholars at our local science museum. Graduate student, Samson Lotven (middle panel to the left) is working with others to learn about aerodynamics. In the rest of the issue we are focusing on our graduate students who have been supported by the generosity of our donors. In addition, we have also included a selective bibliography of the faculty from the calendar year 2018. We hope you have time to peruse the titles and names involved. Much of what you see here was not done without the help of many, including the support of alumni and friends of the department. We appreciate your support in all its forms, and hope you enjoy this volume.

Ken de Jong (Chair)
Samson Lotven is an advanced graduate student with exceptional background doing fieldwork on languages ranging from Korea to West Africa. His doctoral work is now focusing on the large population of South Asian speakers here in Indiana. Samson is the 2018 recipient of the University Graduate School Grant-in-aid of Doctoral Research, as well as the Department’s Graduate Travel Support Fund.

Before Thanksgiving break 2017, Dr. Kelly Berkson invited me to work with three speakers of Hakha Chin, a Tibeto-Burman language spoken as a language of wider communication in Chin State, Myanmar. With around 25,000 Burmese refugees in Indiana alone (largely from Chin State), the access to a local speaker community offered great potential for scholarship and community involvement. So, I read as much as I could on the language group over break, signed on board the next week, and was eliciting Hakha Chin data with the help of three language assistants (Zai Sung, Thomas Thawngza, & Peng Hlei Thang) by the start of spring semester. As part of my meetings with these patient IU undergrads, I began to ask more of their ethnographic and linguistic history. This line of questioning led me to learn that two of these three language assistants (Zai and Thomas) identified as ethnic Zophei. The language or languages of the ethnic Zophei villages in Chin State are completely undescribed and spoken by about 4,000 Hoosiers.

For the last year, I have been working to make the first steps in Zophei research, primarily to facilitate future work by creating a word list, gathering recordings, and describing the sound system including consonants, vowels, tone, syllable structure, and word formation for my doctoral dissertation. I am also thankful to the Graduate School for supporting my research through a Doctoral Dissertation Grant-in-Aid award to help pay my language assistants for their time.

With Indiana as my field location, I have learned that there are at least three varieties of Zophei and that within the ethnic Zophei population, there are also communities that speak Hakha Chin and Senthang rather than any Zophei variety. The two language assistants I have been working with each speak a different variety of Zophei, so I have been working to compare and contrast their sounds systems. There are several similarities between the varieties, such as phonemic voiceless sonorants, lateral affricates, and lexical tone (High vs. Low). Within this research I have also come across evidence that Zai’s (Lawngtlang) variety is likely more innovative whereas Thomas’ (Tlawngrang) variety is more conservative. This is exemplified by a couple of vowel chain shifts.

In all, this data-collection and analysis has proved to be a strong and promising start to a research program on the under- and un-documented Kuki-Chin languages in Indiana. In addition to my work with the Zophei languages, the Chin Language Projects at the IU Linguistics Department is growing its work on Hakha Chin, especially in the domain of automatic speech recognition tools. Additionally, we are working with a Lautu speaker on her language, which belongs to another undescribed language group spoken just south of the Zophei villages in Chin State (and by about 700 Hoosiers). With so much local, relevant, and valuable work to be done with the Chin community in Indiana the question is, “Who wants a project?” There are plenty to go around.
In the history of correspondence systems in Iran up to the 13th century, the earliest evidence comes from the Achaemenid Empire (550-320 BC) when the administrative language was the Semitic language of Aramaic. After the Macedonian conquest of Iran and under the Seleucids (320-129 BC), Greek was used as the administrative language within the Iranian lands, and in the Iranian dynasties of Arsacids (129 BC-224 CE) and Sasanids (224-650 CE), the administrative language was Parthian and Middle Persian, which are both western Middle Iranian languages. After the Arab conquest of Iran and the overthrow of the Sasanid dynasty in the mid-7th century CE, the Iranian plateau gradually became part of the Arab Islamic empire ruled by Umayyads (661-750) and later, the Abbasids (750-1258) until the emergence of the (semi-) independent governments of Iranian and Turkish origin. Under the Umayyads, Arabic became the official state language in the Islamic empire, and it continued to be used for official correspondence under the first Iranian dynasties, the Samanids and the Buyids (934-1029). The situation started to change under the Ghaznavids (977-1040) when the official language of the chancery changed from Arabic to Persian. Starting from the Seljuk period (1040-1194), which witnessed the establishment of Persian as the official language for correspondence, we have access, not only to collections of official documents and letters in Persian, but also to a few manuals with detailed discussions of epistolary conventions.

Noteworthy in this survey is that from early on in Islamic Iran when Persian started to be used as the official language, we observe a well-articulated, refined system of epistolary conventions both with respect to the layout of a letter and also the sophisticated rhetorical and literary language used therein. The letters feature several sections and subsections, and carefully employ various rhetorical figures, including phonetic and prosodic devices like rhymed prose and parallelism as well as metaphors and allusions.

In my dissertation, I am studying the origins and development of Persian epistolary stylistics in early medieval Iran and will try to trace it back not only to the epistolary conventions of its immediate predecessor.

Continued in page 4
i.e., Arabic, but also to Middle Iranian languages of Middle Persian and Parthian, Greek and ultimately Aramaic. By looking at the interaction of epistolary systems in several consecutive administrative languages, this study offers an account for the continuity and change in the stylistics of one specific genre, i.e., epistolary genre, across five different languages. In the long period of time in question, starting from the Achaemenid empire, passing through the Arsacid and Sasanid dynasties up to the Islamic empire and early (semi-) independent medieval dynasties, one indeed expects to see some strong elements of change in the stylistics of official letters, which also reflect different ideologies and power dynamics in these dynasties. However, we expect rather powerful elements of continuity as well; the migration of scribes from the well-established administrative system of the losing empire/dynasty to the developing administrative system of the new ruling party, on the one hand, and the hereditary nature of professions, including the scribeship in ancient and medieval Iran, on the other, seem to have made the epistolary genre more conservative than other genres of Persian literature.

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**Features of Translated Chinese and Natural Language Inference**

by: Hai Hu

Hai Hu is a student of computational linguistics who is interested in combining computational research techniques and applications in the humanities. Hai is a 2018 recipient of Householder Research Funds from the Department of Linguistics.

My first research area is in the features of translated text, sometimes referred to as “translationese”. The general goal is to uncover and understand linguistic features of translations as a distinct variety of the language in question, with the aid of computational tools, such as machine learning. This is usually done by comparing translations in language A to the text originally written in that language. For example, some of my work has shown that Chinese text translated from Indo-European languages overuses pronouns, especially in subject positions; but this is not the case for translations from Korean and Japanese. This is likely due to the fact that most Indo-European source texts do not allow pronoun elimination, whereas pronouns in subject and object positions can be omitted in Chinese, Korean and Japanese. Another finding is that translations tend to overuse function words, with each source language having its own “pet words”. Several other translationese features have also been identified, many of which are related to typological traces of the source language.

This line of study not only deepens our understanding of textual characteristics of translations, but can also help with assessing the quality of human and machine translations. In the specific case of Chinese, it provides empirical (counter-) evidence to the claim that historical changes in modern Chinese originate—to a considerable extent—from translations into Chinese, an important issue in the history of the language. It also has implications for the study of “Europeanized” or translation-flavored Chinese.

My second area of research focuses on natural language inference/understanding, a central issue in computational linguistics and artificial intelligence. My work, together with Prof. Larry Moss from the Mathematics department and Qi Chen from the Cognitive Science Program, approaches the problem using Natural Logic. Rooted partly in syllogism, Natural Logic tells us that if “every linguist likes reading newsletters”, then it follows that “every syntactician likes reading newsletters”, thus providing some important intuitions on what one can infer from sentences in natural language. To be a bit more technical, we exploit known properties of quantifiers about whether they are upward or downward entailing on their arguments, as well as our world knowledge (e.g. syntacticians are linguists), determine the polarity of every constituent in a given sentence, and finally replace words with other words denoting a larger or smaller set. Our approach tries to steer a middle course between the first-order-logic-based method, which often fails because natural language is simply too complex to translate into a rigid logical form, and the machine-learning-based approach, which does not make much use of linguistic knowledge.
Colette Feehan is beginning her thesis work incorporating the technical capabilities of the IU environment into opening a new understanding of our speaking capabilities. She was a recipient of the 2018 College of Arts and Sciences Travel Award, presenting her work before an international audience in Victoria, B.C.

In my research I am interested in the articulatory and acoustic phonetics of voice actors imitating child speech. Many people do not realize or ever think about how in animation many of the child characters are actually voiced by adults. Some of the reasons for this are that children are hard to direct, they cannot work long hours, and they eventually go through puberty and their voices change. Using an adult who can reliably and believably imitate a child voice is much easier and better for long term projects. Studying voice over in animation has resulted in some fruitful research related to sociolinguistics, specifically in regard to use of stereotyped language and dialect imitation. With my research, I am continuing to use this fairly untapped market of voice actors to look at some of the ways they manipulate their vocal tracts.

I am collaborating with the Speech Production Lab in the Speech and Hearing Department headed by Steven M. Lulich to use 3D/4D ultrasound to look at what voice actors physically do with their vocal tracts in order to imitate a child voice and how those manipulations translate to the acoustic percept of “child voice.” I am drawing from what Catford (1977) refers to as an anthropophonic approach to phonetics which states that phonetics is based on a circular definition, “a speech sound is a sound you find in speech.” Instead of simply describing sounds we know already exist in speech, one aim of my dissertation is to look at how professional voice actors can push their vocal tracts to different extremes and use that to inform our model of speech articulation.

Studying voice actors may also have implications for use in speech pathology. Looking at how actors can change the articulation of certain speech sounds but still make them intelligible could provide insights into alternative ways of instructing patients with atypical speech articulation. Additionally, studying voice actors in this way can help inform the field of vocal performance. As of now, there is not set pedagogy for teaching voice acting. According to several of the professional voice actors with whom I have spoken, people do not typically go to school to learn how to do voice-over. As one actor, Leraldo Anzaldua, put it, “to become a voice actor you have to be good at voice acting.” Up until now the inner workings of the mouth during this type of vocal performance has been quite overlooked and mystifying. The main aim of my dissertation is to start tapping into this linguistic resource and demystifying the anatomical manipulations implemented by voice actors.
Taiwo Ehineni is a finishing doctoral student, who defended his doctoral thesis last fall.

My dissertation provides a linguistic analysis of Yoruba personal names with the view to identifying the morpho-phonological, morpho-syntactic and ethnopragmatic features that underlie their formation. Yoruba names constitute a very significant aspect of Yoruba linguistic repertoire. First, they are significant as a means of cultural identification through which the Yorubas designate themselves as different from other ethnic groups. Every Yoruba name marks the bearer with a Yoruba identity and a sense of belonging, which is shared by members of the ethnic group. Second, personal names are relevant as a means of historical preservation. A number of Yoruba names, foreground the history of a family and events that have taken place in certain lineages. For instance, the name Agbede means ‘blacksmith’, indicating a historical vocation common to a particular lineage. Third, these names constitute a form of linguistic documentation through which the Yorubas chronicle their personal experiences at one point or the other.

In essence, Yoruba names are rich culturally, historically, and linguistically. This study therefore investigates these names both formally and functionally. Based on the complexity of Yoruba names in terms of structure, the collected data would be analyzed using a combination of three approaches: morphophonological, morphosyntactic and ethnopragmatic approaches. While a name may be derived morphologically, it may involve phonological and syntactic processes, and has ethnopragmatic features. First, in the area of morphophonology, the study shows how personal names involve processes such as preconsonantal vowel elision, tone pattern truncation, syllable elision and consonant lengthening. In a morphosyntactic perspective, the study illustrates how processes as compounding, clipping, lexicalization and desententialization are utilized in deriving the personal names. Notably, names can also be grammatically categorized into linguistic forms such as declaratives, imperatives, interrogatives and conditionals based on their structural configurations. Third, it is observed that the forms that names take are often invoked by their functions; that is, it is the context of situation that predetermines what name is given and why. In this view, for instance, names classified as imperatives – Malomo (Don't go again), Makú (Don't die) may be death-prevention names – where the parent of still born children gives a name to specifically rebuke the spirit of death.

This exploration of how contexts of situation in the Yoruba ethnic community influence the formation of personal names relates to ethnopragmatics – the third approach employed in the study. However, what is more interesting about the linguistics of these names is that they exhibit certain linguistic processes that deviate from common processes in the grammar of the language. For instance, while vowel elision commonly occurs in a V + V (intervocalic) context across morpheme boundary in Yoruba (as largely discussed in the literature), it may however occur in a non intervocalic context in personal names. Also, certain impossible combinations while deriving regular words in Yoruba are possible in the morphosyntactic formation of Yoruba names. Another interesting aspect of the study of Yoruba names is the formation of hypocoristic personal names. The discussion of hypocoristics is formalized within the Optimality-theoretic framework (OT) based on the observation that the hypocoristic forms are influenced by a number of constraints in the language. The OT analysis of hypocoristics also provides more insights into the nature of truncation, reduplication and tone. More specifically, the discussion of the reduplicated hypocoristics reveals that foot faithfulness should be distinguished from tonal faithfulness in morphological reduplication.

Overall, this study provides more understanding of the structure of Yoruba personal names. Unlike previous studies, this study gives a more indepth analysis of Yoruba names from various perspectives. It reveals that while names are deeply cultural, they are also theoretically linguistic. They take up forms that reveal underlying contraints in the grammar of a language and also reflect various contexts of situation in the Yoruba ethnic ecology. Names are not just arbitrary labels, but most notably, linguistic categories – lexical, phrasal or sentential - that have indexical relationship to sociocultural meanings and functions, places, time, people and events.
Research Publications and Presentations


- Botne, Robert, Mwingira, Margaret P., “Mpoto Fables and Folktales”, Rüdiger Köppe Verlag, Cologne, Germany.


• Davis, Stuart, Lee, Dongmyung, “Ambiguous Syllabification in English: Foot STructure and the Schwa Syncope Problem”, Language Sciences, South Korea, vol 25, pp. 315-33-


• Hu, Hai, Li, Wen, Kuebler, Sandra C., “Detecting Syntactic Features in Translated Chinese”, Proceedings of the 2nd Workshop on Stylistic Variation at NAACL-HLT.


• Kuebler, Sandra C., Nicolai, Garrett, (Editors), Proceedings of the 15th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology, Brussels, Belgium.

• Kuebler, Sandra C., Zinsmeister, Heike, (Editors), Proceedings of the Workshop on Annotation in Digital Humanities (annDH), Sofia, Bulgaria.

• Lulich, Steven, Cavar, Malgorzata E., Nelson, Max, “Three-dimensional ultrasound images of Polish high front vowels”, Proceedings of Acoustical Society of America, vol 30, issue 060006


• Mukherjee, Atreyee, Kuebler, Sandra C., “Domain Adaptation in Dependency Parsing via Transformation Based Error Driven Learning”, Proceedings of the 17th International Workshop on Treebanks and Linguistic Theory (TLT)


• Obeng, Samuel G., Conflict Resolution in Africa: Language, Law and Politeness in Ghanian (Akan) Jurisprudence, Carolina Academic Press, Durham, NC, United States

• Obeng, Samuel G., Green, Christopher R., African Linguistics in the 21st Century, Rüdiger Köppe Verlag, Köln, Germany,


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Linguistics at Indiana University

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