Welcome to the first ASSTA Newsletter for 2019. It has been quite a while since the last issue. The aim is to release 2-3 per year from now on.

My name is Olcay Turk. I am a PhD candidate working on co-speech gestures and prosody at Victoria University of Wellington, New Zealand. I took over the Newsletter editor position from Trent a while ago and I’m very glad to be a part of this.

The president’s report from Felicity highlights events from the previous years. In “Call to action”, ASSTA expresses its support for Helen Fraser’s initiative and informs on its progress.

In this issue, there are brief reports of SST 2018 and an ASSTA supported event ProsLang 2018, held in Wellington, NZ, followed by two lab reports - one from the phonetics lab at Macquarie University and the University of Melbourne.

There are also two student reports by Jesin James and Martin Ho Kwan where they talk about their experience in Interspeech 2018 and Speech Prosody 2018.

Enjoy the newsletter!

Olcay Turk
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Contributions
Contributions should be sent to the newsletter team via email to olcay.turk@vuw.ac.nz as plain text or as an attachment in Rich Text Format (RTF), Microsoft Word (DOC).
President's report

2019 is set to be a bumper year for speech science and technology in our corner of the globe. ASSTA is very proud to be hosting the pre-eminent International Congress of Phonetic Sciences (ICPhS) which will be held in Melbourne from 5th to 9th August this year. This is the first time that the Congress has travelled to the Southern Hemisphere since its inception in Amsterdam in 1932. The 2019 Congress themes are “Endangered Languages and Major Language Varieties” – both of which are particularly relevant in the Australasian context. Under the leadership of Marija Tabain supported by an extremely dedicated organising committee, ICPhS has nearly 800 papers/posters accepted and over 900 registrations with authors from 69 countries. This is a fantastic achievement and we still have three months to go before the Congress begins.

ICPhS promises to be a major international event giving the Australasian speech science and technology community an opportunity to show the world that we really do punch above our weight in terms of the calibre, diversity and level of engagement in research. To support student involvement, ASSTA has offered three Best Student Paper awards of $1000 each for ICPhS. We also acknowledge the challenges that carers face juggling research and care responsibilities and we have recently created a new Primary Carer Support for Conference Attendance Grant. Up to five $500 Carer grants will be awarded each year, the first of which will be available for ICPhS attendance. Details will be posted soon.

Another important event in the ASSTA calendar is the biennial series of SST conferences. In December 2018, the 17th Australasian International Conference on Speech Science and Technology SST 2018 was organised by Julien Epps, Joe Wolfe, John Smith and Caroline Jones. SST2018 was held at the Coogee Bay hotel in Sydney. I think all attendees would agree that the venue was excellent, situated right across the road from the beach. This made for a laid-back, welcoming, and highly engaging meeting. If you are interested in hosting SST in the future please get in touch. ASSTA is able to offer considerable guidance and financial support.

At the 2018 AGM held at SST2018 former ASSTA President Denis Burnham was awarded life membership for service to ASSTA and the speech science and technology community. We also farewelled Catherine Watson as the outgoing President. I’d like to thank both Denis and Catherine for their dedication and commitment to ASSTA over a great many years.

In 2018 ASSTA also supported two extremely successful research events. The 2nd Workshop on Sociophonetic Variability in the English Varieties of Australia (SociophonAus2) was held at Griffith University in Brisbane organised by Gerry Docherty, Janet Fletcher, Olga Maxwell, Anita Szakay, and Simón Gonzalez. The Workshop on the Processing of Prosody across Languages and Varieties (ProsLang) was held at the University of Victoria in Wellington organised by Sasha Calhoun, Paul Warren, Janet Fletcher, Olcay Turk and Mengzhu Yan. ASSTA is committed to supporting research through events that strengthen existing research groups/collaborations and foster new networks and collaborative opportunities. Twice a year we offer Research Event Awards of $5000 each so start planning your next research event.

I’d like to take this opportunity to thank you for your continued support of ASSTA. I’m looking forward to catching up with you all at ICPhS in August.

Felicity Cox
ASSTA President
Call to Action

At the end of 2017, ALS and ALAA delivered a ‘Call to Action’, initiated by Helen Fraser, to the Australian judiciary, seeking review and reform of problematic legal procedures for the handling of indistinct covert recordings used as evidence in criminal trials (for more background, please visit forensictranscription.com.au).

A reference committee of senior linguists was formed, led by Helen, to progress the Call to Action, and a smaller working party has been active throughout 2018-2019.

Since then, the Call to Action has been endorsed by ASSTA (AGM 2018) and also by AusIT, the Australian Institute of Interpreters and Translators, who are interested because many covert recordings feature conversations in languages other than English - and it turns out legal procedures for translation are at least as problematic as transcription of English material.

In April 2018, the Call to Action was considered by the Council of Chief Justices, and eventually a working party of senior judges has been formed to consider our issues.

The linguistics working party began discussion with the judicial working party in Feb 2019, and with their help, we are expecting to convene a workshop for senior figures in law, law enforcement and linguistics to discuss the problems and consider solutions - hopefully in October 2019.

Helen will recount the story of the Call to Action as a keynote at IAFL Melbourne in July (https://iaflconference2019.com). It would be great to see plenty of ASSTA members there (of course there are loads of other great keynotes, workshops and talks to enjoy).

A few relevant publications that might be of interest to ASSTA members:


SST 2018

The 17th Australasian International Speech Science and Technology Conference was run from December 4-7th at Coogee Beach in Sydney, chaired by Julien Epps (UNSW), Joe Wolfe (UNSW), John Smith (UNSW) and Caroline Jones (WSU). The SST 2018 technical program included 46 oral presentations (published in the proceedings as 4-page papers) and 10 poster presentations (published on the SST website as 1-page abstracts). The conference received 96 registrations, and attendees enjoyed keynote presentations from Katherine Demuth, Thomas Quatieri and Kristiina Jokinen, tutorials from Emily Mower Provost, Helen Fraser, Martijn Wieling and Kong Aik Lee, and a special presentation by vocal artist Mal Webb, who demonstrated the capabilities of the vocal apparatus live. The chairs would like to thank all volunteer reviewers who contributed their efforts to the review process, conference sponsors UNSW Schools of Physics and Electrical Engineering and Telecommunications and the NSW Government, and ASSTA for their support.

New Researcher Award

ASSTA offers New Researcher Awards to student and early-career members for the best papers and associated presentations at each SST conference. The New Researcher Award for SST2018 went to Rosey Billington for her paper and presentation ‘Acoustic correlates of prominence in Nafsan’, co-authored with Janet Fletcher, Nick Thieberger, and Ben Volchok. The paper examines prominence patterns in Nafsan, an Oceanic language of Vanuatu, based on fieldwork with speakers of Nafsan in Erakor village, on the island of Efate.

For Nafsan, previous impressions of prominence varied, and as for most languages of the linguistically diverse region, there was limited information regarding the correlates of perceived prominence patterns. Rosey and colleagues presented acoustic and durational results showing a preference for prominence at the right edge of words, with fundamental frequency as a primary correlate.

The study is part of an ongoing project investigating phonetic and phonological patterns in Nafsan, and these findings offer important information relating to other aspects of the language currently being explored, such as vowel length, vowel deletion processes, and phonotactic structures. Rosey would like to pass on her thanks to the ASSTA Executive for this award, and to the Nafsan community members who participated in and facilitated this research.
ProsLang 2018

The ASSTA Research Event 'Workshop on the Processing of Prosody across Languages and Varieties (ProsLang)' was held at Victoria University of Wellington, 28-29 November 2018. The workshop was a satellite of SST-18, and was organised by Sasha Calhoun and Paul Warren at Victoria University, and Janet Fletcher from University of Melbourne, together with PhD students Olcay Turk and Mengzhu Yan at Victoria. The workshop formed part of the activities for Sasha's current Marsden grant looking at prosody in speech perception processes. The workshop brought together a wide range researchers interested in the role of prosody and intonation in speech production and perception processes across languages. There were 35 participants from 13 countries, speaking on 24 languages and/or language varieties, including five distinguished invited speakers: Prof Anne Cutler, MARCS, Western Sydney; Prof Jennifer Cole, Northwestern University; Prof Bettina Braun, Konstanz University; Dr Nicole Gotzner, Leibniz-ZAS Berlin and Prof Janet Fletcher. It was a very stimulating and convivial couple of days in Wellington, with a particular highlight on bringing together researchers working on the functions of prosody in endangered and understudied languages, with those looking at cutting edge semantics in major, well-studied languages. A journal special issue is planned arising from the themes of the workshop.
Macquarie University

Phonetics Lab Report 14th May ‘19

The Macquarie Phonetics Lab has been very active over the past 18 months with the publication of 25 journal papers/book chapters and 11 full conference proceedings. Members have given 35 conference presentations. We are working in many diverse areas including sociophonetics, child language development, diversity in Australian English, articulatory phonology, prosodic phonology, production and perception of liquid consonants. The following reports on our activities from 2018.

The Phonetics Lab hosted/co-hosted the following research events:

- 4th Variation and Language Processing Conference (VALP4)
  Anita Szakay et al. 23-25 January 2019

- Analyzing dynamic phonetic data using generalized additive mixed modelling.
  Martijn Wieling (University of Groningen).

- Keeping up to date with forced-alignment: The Montreal Forced-Aligner
  Simón González (ANU, ARC COEDL) and James Grama (ANU, ARC COEDL)
  Macquarie University, 11 Sept 2018

- Australian Eye-tracking Conference
  Nan Xu Rattanasone et al.
  26-28 April 2018

- Estimating Statistical Power
  Nan Xu Rattanasone & Camen Kung.
  MQ Phonetics Lab Workshop, 5-Jan-18

Members of the Phonetics Lab presented 8 posters at the 16th Conference on Laboratory Phonology
University of Lisbon, 19-22 June 2018:
Lab Visitors and Hosted Talks:
Lab visitors included:

- Niels Schiller, Leiden University, Leiden University Centre for Linguistics (LUCL) & Leiden Institute for Brain and Cognition (LIBC). Morphological processing in speech production: The case of compounding. (CLaS-CCD Colloquium, 16 Oct 2018)

- José-María Lahoz-Bengoechea (Complutense University of Madrid). Variations in the phonetic detail of Spanish consonants as a cue to prosodic position. (MQ Phonetics Colloquium, 10 Sept 2018)

We are pleased to announce the following students HDR completions:


- Ping Tang (2019). Children’s acquisition of Mandarin tones in context PhD, completed with Vice-Chancellor’s commendation, supervised by Katherine Demuth, Nan Xu Rattanasone, and Ivan Yuen.


There are four new HDR students in 2019:

- Ioanna Anastasopoulou, MRes/PhD Neuroimaging of articulatory motor control in children, supervised by Michael Proctor and Blake Johnson.

- Jidde Jacobi, PhD Deterioration of Voice and Speech in Individuals with Parkinson’s Disease: A Longitudinal Study, IDEALAB student at Macquarie University and University of Gronigen

- Ryssa Moffat, PhD Mapping emotional prosody processing in normal hearing and cochlear implant listeners with fNIRS. IDEALAB. student at Macquarie University, University of Gronigen, and University of Potsdam, supervised by David McAlpine, Lindsey van Yper, and Deniz Baskent.


These are our ongoing HDR student projects:

- Rebecca Holt, PhD Linguistics: Examining sentence processing in children with and without hearing impairment, supervised by Katherine Demuth, Laurence Bruggeman


- Joshua Penney, PhD Linguistics: The production and perception of coda glottalisation in Australian English, supervised by Felicity Cox and Anita Szakay
- Selvarani Suppiah, PhD Linguistics: *The Asian voice in Australia*, supervised by Felicity Cox and Kimiko Tsukada
- **Tunde Szalay, PhD Linguistics:** *Perception, production, and mental representation of /l/-final rimes in Australian English*, supervised by Michael Proctor, Felicity Cox, and Titia Bender
- **Louise Ratko, PhD Linguistics:** *A systematic investigation of vowel length contrasts in Australian English*, supervised by Michael Proctor and Felicity Cox

We are excited to announce the following grant success:

- 2018 ARC Discovery Project. Cox F. & Harrington J. *Children's speech, community diversity, and the emergence of sound change.*

Congratulations to members on the following prestigious awards:

- **Joshua Penney** (2018) awarded an Endeavour Scholarship to study with Prof Jonathan Harrington at the Institute of Phonetics and Speech Processing (IPS), Ludwig Maximilian University of Munich for six months.
- **Joshua Penney** (2019) IPA Gösta Bruce Scholarships for ICPhS 2109 for the paper *Perception of coda voicing: glottalisation, vowel duration, and silence*
- **Louise Ratko** (2019) IPA student award for ICPhS 2019 for conference paper *Onset - Vowel Articulatory Coordination - voiceless stops and vowel length*

New Arrivals:

Congratulations to Ben Davies and Caitlin Davies on the birth of their son Frankie on the 13th of November, 2018!
Unimelb Lab Report

The phonetics laboratory at The University of Melbourne has had a busy and successful year (including a 100% success rate for the upcoming ICPhS in our hometown!).

Professor Janet Fletcher was re-elected to serve on the IPA council for the period 2019-2023. As well as many other appointments, she remains a member of the ASSTA executive, and Debbie Loakes has also joined her on the executive as secretary, from 2019. Olga Maxwell also had a recent success, receiving a Transdisciplinary Innovation Grant from CoeDL (Centre of Excellence for the Dynamics of Language) for her project Indian English in the diaspora: A study investigating linguistic modification among new migrants in Australia and the UK. Our students have had many successes as well. For example two PhD students, Joshua Clothier and Eleanor Lewis, received highly competitive IPA student awards to support their attendance at ICPhS. Alex Kilpatrick, in the final stages of his PhD studies, has also recently left to take up a new role as Assistant Professor at the Nagoya University of Business and Commerce in the faculty of International Studies.

We have also had a number of workshops and events organised by our members in the last 12 months. For example, Chloe Diskin ran a workshop called Using ultrasound tongue imaging to track second language and second dialect acquisition. Some photographs of the event accompany this report (the team, L-R are Simon Gonzalez (ANU), Hywel Stoakes (University of Auckland), Rosey Billington, Sam Kirkham (Lancaster University), Chloe Diskin and Debbie Loakes).

Debbie Loakes, Hywel Stoakes and Katie Jepson ran an event at the 2018 CoEDL Summer School at ANU called A practical user's guide to MAUS: Theory, applications and troubleshooting. This year, the summer school will be hosted by The University of Melbourne from Dec 2-6 (just before ALS!). There are a number of courses on offer which will interest ASSTA members, for example a course on prosody (run by Fletcher, Loakes and Billington), as well as the use of R & RStudio (two courses, one run by Clothier & Jepson, one by Schweinberger) and EMU-SDMS (Stoakes) which will interest members.

You can read about all of the courses at this link below (registration opens in August):


We also want to draw attention to a workshop being held here at The University of Melbourne as an ICPhS satellite. We are hosting the event Prosodic Typology 3 (coordinated by Sun-Ah Jun UCLA) on 4th August before the main conference and hope to see some of you there! Here is the link for this meeting:

https://linguistics.ucla.edu/people/jun/IntonationWorkshop2019/
Student Reports

Interspeech 2018

September 2-6, Hyderabad, India

By Jesin James

Interspeech 2018 took place in India. This was the first time that the world's largest and most comprehensive speech technology conference was held in India. During the last few years, there has been a lot of focus on developing language resources and speech technology for Indian languages. Most of the Indian languages come under the category of under-resourced languages, and hence researchers are focusing on developing more resources and technologies for such under-resourced languages. Also, India has a strong influence of English, and there are currently attempts to develop speech technology for "Indian English" as well. As "Speech Research for Emerging markets in Multilingual Societies" was the theme of Interspeech-2018, India was an apt venue for the conference. I got the opportunity to attend Interspeech 2018. I had received the ASSTA Travel grant which helped with the expenses of the conference travel.

The 4th Doctoral Consortium at Interspeech took place on September 1 at the International Institute of Information Technology Hyderabad (IIIT-H). It was a one-day event where selected participants presented their PhD research work for 30 minutes followed by a discussion of 15 minutes, led by a panel of experts. The panel had speech technology researchers from different parts of the world, some working in the industry and some in prominent research institutes. I presented my PhD research "Modelling prosodic features for Empathetic Speech for a Healthcare robot" and received constructive feedback from the panel.

The official inauguration of Interspeech 2018 was held on September 3, 2018, at Hyderabad International Convention Center, India. This year, 1668 papers were submitted for Interspeech, out of which 749 were accepted, making the acceptance rate as 54.31%. During the inauguration ceremony, detailed statistics about the review
process was presented, the ISCA fellows were honoured and the ISCA medalist was also announced. This was followed by the ISCA medal talk by Bishnu S. Atal.

*Interspeech 2018 Main hall during the Inauguration ceremony.*

The technical oral sessions of the conference were held in parallel tracks. There were also Poster sessions and Show and Tell sessions as well. Each day started with a Plenary Talk, and there were Perspective Talks at noon every day. I presented the paper - "An Open-source emotional speech corpus for Human-Robot Interaction Applications"([Click to read](#)) on September 5 under the track Spoken Corpora and Annotation. This paper explains the development of an open-source emotional speech corpus in New Zealand English. The corpus contains 5 primary emotions and 5 secondary emotions, and these emotions have been chosen as they are relevant for Human-Robot Interaction applications.

The conference also had various student events like "Students meets experts" and Open door sessions by Microsoft and Genesys where we got the opportunity to visit the research facilities of these companies. Every day after the end of the technical sessions, there were social events aimed to promote the interaction between the conference delegates. There were cultural events, student reception, reviewer reception and a banquet. The sessions were made lively by Bollywood music and the atmosphere was lightened by the fun dancing of the researchers, students and organisers. Almost all companies working on speech technology had their stalls set up in the main conference venue. There were exhibition stalls by Apple, Amazon Alexa, Baidu, Google, Microsoft and many other companies and organisations. This gave the students a good opportunity to interact with employees in these companies working on speech technology applications. Most of these companies also hosted their own social interaction sessions, for which they invited students via LinkedIn or emails. I attended the events by Apple, Microsoft and Amazon and got the opportunity to talk to researchers in Text To Speech synthesis and also discuss the challenges they face in developing such technology.

Overall, Interspeech 2018 was a good experience, and it made me more knowledgeable about the research trend in speech technology happening in different parts of the world. It also provided me with information about more diverse applications of speech and the various challenges researchers face in developing such technology. This year was heavily dominated by the focus on Deep Neural Networks in solving speech science, which was promoted by the availability of a large amount of data and the computation power to support its analysis. Now that Machine Learning (ML) is providing better results, there is a focus on trying to understand what is happening inside the "black box" that ML is considered to be. This has paved the way to focus on Explainable AI, and there were many discussions in this area during Interspeech. There is also a wave of research happening to develop resources for the under-resourced languages.

There is currently a separation from the development speech technology and language studies. This has constrained the growth of both the fields. Speech technology research will reach saturation after the ML
techniques are used, and there is a need for Language research knowledge to be implemented while training the ML models. Language research has also been understanding the patterns in human interaction and emotions, but they need speech technology knowledge to implement the trends studied into actual applications. This necessity has been seen and Interspeech 2019 (to be held in Austria) will address this with the theme as "Crossroads of Speech and Language".

Speech Prosody 2018
June 13 – 16, Poznan, Poland
By Martin Ho Kwan Ip

I was granted an ASSTA Student Travel Award to attend Speech Prosody 2018 in Poznan, Poland. Speech Prosody is organised by the International Speech Communication Association Speech Prosody Special Interest Group (SProSIG), an international conference that specialises in interdisplinary research on all aspects of speech science, from speech technology and real-world applications to theoretical issues in language processing. Overall, it was a huge event with around 300 to 500 attendees specialising in prosodic research.

I felt extremely fortunate that I had the chance to attend this conference for the second time as a PhD student. Prosodic processing is a topic that was related to my current research in prosodic processing. Also, I felt that this year’s conference was quite unique in that it was held in Europe, at Adam Mickiewicz University, and as a student who wants to pursue a research career, I was able to attend all the sessions and meet new people in a fun academic setting. It was also the first conference where I presented my first perception experiments on L2 and L1 disambiguation in sentence processing (“Asymmetric Efficiency of Juncture Perception in L1 and L2”). A major finding is that English and Mandarin listeners can differ in how they use prosody to disambiguate different syntactically ambiguous sentences, even in sentences where both languages displayed similar prosodic cues and the same type of syntactic ambiguity. After my oral presentation, I received constructive feedback from many people in my field, and their comments helped me think of new ideas for future research! It was certainly encouraging to learn that other researchers were interested in our findings and were also doing similar research in different parts of the world.

Above all, I would like to express my gratitude to ASSTA for providing me with this generous financial support. On a more personal note, this conference was important to me because it helped me maintain and strengthen my academic network with many researchers and fellow students. At the same time, I also had the opportunity to get a new perspective on research in speech science by learning about other studies with a different approach to prosodic research.