Learning report

This four-day conference, the Second Annual Meeting of the Society for Computation in Linguistics (SCiL 2019), was an eye-opening experience for me. It was my first international conference (previously, I had only participated in local conferences in Hong Kong), and it was also the first time that I gave a computational paper in any conference. Moreover, I have never been to concentration with such a large number of famous people in linguistics – I have recognised many names and faces I have seen only as authors of papers and on faculty webpages before. Therefore, it was an extremely exciting experience for me.

During the conference, I mainly stayed in the SCiL whenever SCiL sessions were available; however, as the SCiL was concurrently held with the Annual Meeting of the Linguistic Society of America (LSA 2019), I could attend LSA sessions whenever there were no SCiL sessions.

There were several things I learnt from the presentations themselves. For the oral presentations, there were three main lines of research presented. I learnt about new developments in phonological learning, which our presentation in the conference is also related to. There seems to be a focus on increasing both statistical and algorithmic sophistication and qualitative linguistic structure in the models. There is discussion on how regularisation in the statistical sense can capture aspects of language learning, and particularly memorable was a presentation which presented an evolutionary algorithm for phonological learning. The second line of research presented was formal language theory, which I have little previous exposure to.

The final line of research that was common in the oral presentations was the application of natural language processing techniques to provide insight on linguistic problems. In particular, there were tutorials and a special panel session on how linguistics and natural language processing can help each other advance at fields. I notice that a common type of current research is to treat neural network language models as psycholinguistic participants, then to compare the results with human subjects' performance. Currently, I am somewhat skeptical about the line of research since little effort seems to have been paid to understanding *how* the models actually work, which is usually said to be an avenue for future research. Considering the Universal Approximation Theorem, it may not be very meaningful simply to show that neural networks are capable of learning something. One point raised by Noah Smith during the special panel sounded quite reasonable: Perhaps the most useful thing for linguists is to be able to 'mess with' neural nets in ways we cannot achieve using human subjects, such as removing memory, attention, etc. and seeing what happens. In the other direction, I learnt that the main contribution of linguistics to NLP at the moment seems to be in error analysis. While I do not believe my research currently has much to contribute to this type of research, it is not inconceivable that I may think about the implications of my research for NLP error analysis someday.

The poster presentations included a much wider range of topics than was present in the oral sessions. Again, there were quite a number of recurrent neural network topics, but unlike in the oral presentations, they do not concentrate solely on syntactic judgement tasks. There were also presentations from every field from phonetics to pragmatics (the oral presentations focused on syntax and morphophonology). I learnt a great deal from the presentations there; there were more traditional research questions in syntax and sociolinguistics investigated with larger datasets, including corpora, there were attempts to outperform using neural models previous models that involve explicit feature engineering, and so on.

I presented a poster presentation for the first time at the SCiL, and it was a great learning experience. It was my first try at creating my own academic poster, and I tried to convey as much information as possible without overwhelming the reader with too much content. As we were presenting a computational paper, there was focus not just on qualitative discussion or quantitative results but also quite a bit on the mathematical underpinnings, which brought additional challenges as I have had little previous experience with such explanations. I explained the notion of phonological distance to people who have had little previous experience in the field, and received valuable comments from Prof Adam Albright regarding the interpretation of our results.

Outside of the SCiL, I also had learning experiences listening to the 'Five Minute Linguists' competition. It was a contest where linguists had to explain their research to a popular audience within five minutes in a way that is both comprehensible to non-specialists and engaging. The use of entertaining graphics and pithy titles, starting and ending with the same anecdote, etc. are techniques I can also apply when I find the need to present my own findings to the public.

Finally, the entire trip was the first time I have ever been to a foreign country on my own, as well as my first time to visit a western country. It was quite stressful to be on my own in a foreign environment, with many things to consider. (In fact, I was cheated of some money on the streets of New York City at one point…) It was important experience for me as I plan to stay in academia in the future, which will involve a heavy amount of travelling to attend conferences, give presentations, and so on. Moreover, as I am going to study my PhD degree in the US, I have also learnt much about how the US works through the trip.

Measuring Phonological Distance in a Tonal Language: A Computational and Experimental Study with Cantonese

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Join us for complimentary coffee and tea on Friday and Saturday from 10:30 to 11:00 AM and 3:30 to 4:00 PM, while supplies last.