Review

BABEL LECTURE 2019: JESSICA COON

by Jeremy Scott

Learning a new language is hard. The process comes with five different stages, which often last for maddeningly extended periods (I speak from the bitter experience of trying to learn Finnish). First comes 'silent/receptive', then 'early production', 'speech emergence', 'intermediate fluency' and finally 'continued language development/ advancement'. These stages can take years to progress through, especially in the case of the acquisition of a second language, and depend on complex factors, including the nature of the learner, the structure and complexity of the language, and cultural contexts. So, yes: learning a new language is hard.

Another determining factor is the amount of linguistic, cultural or physical 'space' between the language to be acquired (or region) and a learner's first language (L1); and the particular graphological system or alphabet used to write the language down. Think how much easier it would be for a native Swedish speaker to learn Norwegian – languages which use (more or less) the same alphabet and are geographically, culturally, syntactically and lexically proximal in fact mutually intelligible for many speakers – than Mandarin Chinese. Imagine if the language to be acquired comes not from Earth, but a galaxy far away, that the speakers of that language have seven limbs, hover in the air in smoke – and that they 'speak' using squiggly circles.

Decoding such a language was the task of this year's Babel Lecturer, Jessica Coon, Associate Professor of Linguistics at McGill University and Canada Research Chair in Syntax and Indigenous Languages. Not *literally* to learn this language (called Heptapod B – seven limbs, see?), but to imagine what would be involved should the situation happen to arise in, say, a film. But who's to say that one day it won't arise for real?

Jessica was the linguistic consultant for 2016's Arrival – a sci-fi film directed by Denis Villeneuve and based on Ted Chiang's short story, 'Story of Your Life'. The film tells the story of fictional linguist Dr Louise Banks, who is enlisted by the US military to try and work out how to communicate with a group of aliens. I will avoid spoilers, but things get complicated and conflict between aliens and humans seems inevitable. At the risk of sounding trite: Banks attempts to prove that the pen is, indeed, mightier than the sword.

Jessica began her lecture by discussing the many parallels between her own work as a field linguist and the efforts of Banks. Her fieldwork involved studying the Mayan language Chol in New Mexico. Jessica was an undergraduate, and felt completely overwhelmed. She barely spoke Spanish, let alone Chol, and spent her time in the region living with a host family. She tells an interesting anecdote about the extra-linguistic fieldwork involved in these kinds of encounters that has important bearing on one of the film's central premises. She was speaking to a member of the family in broken Chol, trying to elicit some basic word-order:

'How do you say this?'
Chol speaker says it.

'Can you say it this way?'
'Yes.'

'What about this way?'
'Yes.'

'And this way?'
'Of course.'

Jessica was just arriving at the conclusion that she had encountered the most flexible (not to say impossible) language in the world, when a thought occurred to her:
'But would *you* say it that way?'
Chol speaker, laughing: 'Oh, no.'
'But...'
'Oh, but you're doing really well. I understand you perfectly.'

This early experience in her career was a perfect illustration of what she called the 'subtleties' that must go into fieldwork; capturing, analysing and ultimately understanding syntax 'uncontaminated' in the

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field is a tricky beast. Arrival demonstrates the importance of this subtle approach. In one scene, Banks and her team walk into the 'holding area' where they encounter the aliens wearing protective spacesuits (the researchers, not the aliens). Frustrated, Banks takes off her helmet to reveal her face. The military are terrified. But this is the key to 'real' inter-personal interaction. You can't just stride into an alien community (whether rooted in South America or Betelgeuse IV) and start making complicated judgements. You have to start by establishing a proper, functioning relationship on a human (or extra-terrestrial) level.

Before shooting, the production crew visited McGill University to take pictures of Jessica's office shelf and in fact used her books on set (although they also raided the shelves of another Professor for more bulk; they were particularly fond of blue ones, for some reason). Then, they FedExed her and some colleagues a consignment of Heptapod logograms with a note saying "Get to work". The Heptapod logograms were diagrammatic 'signifiers', in Ferdinand de Sausurre's terms; the question she had to answer was: what did they signify? And so it was, again, time to go in at

the deep end. When she finally arrived on set, the crew gave Jessica the scenario facing her fictional alter-ego: you have just arrived at the mothership, you have a team of 50 military personnel, and a whiteboard. You are trying to decipher Heptapod B. What would be written on the whiteboard?

Right…

One of the fascinating premises of this lecture, the film itself (and a question treated in more detail in the original short story), is, to linguists, a bit tired, but still intriguing and evocative: does the language we speak influence the way we think? The argument *against*: human languages share so many basic properties that a child can learn *any* (human) language if exposed to it early. So how far is it possible that a language could ever influence one's essential cognitive processes? Everyone has their favourite anecdote related to this. Someone might say 'When speaking Spanish, I feel more relaxed and romantic', or 'I feel so efficient when I speak German'. However, these impressions are almost certainly not connected to innate properties of the language, but to contexts and associations that language has for the speaker.

But, what if that language were alien? The film puts

exactly this form of linguistic determinism at the centre of the plot. Jessica argues that in the case of a non-human language, this kind of determinism might be more plausible. The plot of Arrival demands that the process of acquiring Heptapod B must actually alter Banks' thought processes, but at the same time be structurally familiar enough for her to be able to learn it. This is a tricky linguistic tension to resolve. The question Jessica and her researchers needed to resolve was: what kind of communication system would be possible in this context?

So, yes – learning a new language is hard. But does the effort involved pay dividends in terms, not only of expanding cultural horizons, but altering, extending and enhancing cognitive processes? Ongoing research into bilingualism, for example, suggests that the answer is 'maybe'. Jessica's fascinating lecture gave the answer: 'if the language is extra-terrestrial, why not?' An encounter of this kind would, both literally and metaphorically, change our minds. This *could* actually happen. One day. Any day.

Now, *wouldn't* that be something?

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