Translation studies go Asian in a quantitative way

How individuals and societies make sense of the Other has been a big question for many decades – in philosophy, cultural anthropology and other disciplines where qualitative methods are paramount. The next word comes from an unlikely breed: philologists with computers. Being empirical is the motto of this new brave world of *Geisteswissenschaften*. Digital humanities, as the direction is branded, flourishes on the unprecedented availability of multilingual computer-readable texts and computational power, as well as the yearning to 'discover' theories through the 'mining' of data.

Alexandre Sotov and Meng Ji

A RECENT PUBLICATION in empirical methods for comparative literary studies is the book by Oakes and Ji, *Quantitative Methods in Corpus-Based Translation Studies*.¹ Among other case studies in a rich range of literature, the volume features two chapters that investigate how European translators dealt with two canonical Asian texts – Cao Xueqin's *Hongloumeng*, a famous Chinese classic, and the *Rgveda*,² the oldest collection of Indian sacred hymns in Vedic Sanskrit (c. 1500 BC) – dwelling on some peculiar transformations that texts undergo when meeting a different language and a distant culture.

Reinventing a Chinese classic

Meng Ji (Tokyo University, Japan) and Michael Oakes (University of Sunderland, UK) investigate the volatile styles of the early English translations of Cao Xueqin's Hongloumeng, known in Europe as the Chinese Romeo and Juliet. The language of the novel, studied in China within its own special discipline called Redology (Hongxue), represents the pinnacle of historical literary Chinese. In China the novel is appreciated for its richness, subtlety, and the masterly use of figures of speech. The translation of the Hongloumeng into English in the 19th century marked a milestone in the Western study of Chinese literature and culture as a whole.

The comparison of different English versions of the *Hongloumeng* offers an opportunity to study the complex historical process and textual experience of the re-configuration of Cao's artistic world in a distinctively different linguistic and cultural system. For that purpose Ji and Oakes used statistical techniques in order to compare three early representative English versions of the novel: Edward Bowra, Herbert Giles and Bencraft Joly. They constructed a parallel corpus that helped to identify linguistic and stylistic differences between the three English translations.

One of their observations was that, when compared to Bowra's earlier translation, which contained a higher rate of function words, such as conjunctions and genitives, Joly's later version enhanced the idiomaticity of the original through an idiosyncratic use of English terms and expressions (see Table 1).

Another important stylistic difference detected in these two English translations of the *Hongloumeng* was the structural variability of the idiomatic expressions used by Joly and Bowra. While the majority of idioms detected in Bowra's early version of the Chinese novel was absolute or complete, with little structural variability, a large proportion of idiomatic expressions retrieved from Joly's translation were instantiated within the textual context of the translation. This represents a further level of lexical adjustments and variations typical of Joly's version of the novel, with a view to accommodating the literary tastes and expectations of the Victorian readership.

In the same volume, Ji studied two modern Chinese translations of Cervantes' *Don Quixote* in early seventeenth century Castilian. The two Chinese translations were created by Yang Jiang⁷ and Liu Jingsheng.⁸ A quantitative analysis revealed that compared to his predecessor, Liu greatly enhanced the use of Chinese idiomatic expressions in his more recent version, especially in terms of the use of Chinese figurative and archaic idiomatic expressions. It is worthy of note that Liu walked a similar path to Joly, the Victorian translator of the *Hongloumeng*. That is, in both cases, the later translations had greatly gained in idiomaticity, which may lead to the conclusion that such is a general pattern in the craft of literary translation, both old and new.

Last but not least, largely comparable findings uncovered in the two case studies demonstrated the significance and productivity of empirical methodologies in the study of literary translations at a cross-linguistic and cross-cultural level. One might hope that the use of statistical techniques can prepare a less speculative framework for the ongoing postcolonial debate about East-West encounters. Corpus driven tools and methods of exploring recurring patterns in structural variations of idiomatic expressions have much to offer such a project.

Playing with poets

The source text and the translation are not easily comparable by means of corpus analysis; that is partly the reason why Ji and Oakes focused primarily on the comparison of the different translations of the *Hongloumeng*. In the same volume, Alexandre Sotov⁹ (St. Petersburg, Russia) went a different way, dealing in his analysis with the one thing that seems to be common in both the *Rgveda* and its western translations: the usage of proper names.

First he simply counted all occurrences of several important proper names from the Vedic pantheon – gods Agni, Indra and Soma – in the Sanskrit text. Then he did the same thing in Karl Geldner's German¹⁰ and Tatyana Elizarenkova's Russian¹¹ translations, aligning every verse of 1028 hymns in the Vedic collection with the translations. The results were surprising. The names were found in about 45% of the *Rgveda's* c. 10.5 thousand verses, but the gap between their occurrences in the translations added up to about 800 verses in Geldner and almost 1000 in Elizarenkova, accounting for almost 10% of the entire *Rgveda*.

The differences between the translations went further when it came to analysing what is called explicitation. It is observed, for example, when a translator decided to add a name where it was arguably implied in the source text, as in verse 10.96.7 where the words Soma and Indra were spelt out by the translators, but not the poets. The analysis unveiled that the translators' choice to explicitate was related to the number of words occurring just once (hapaxes) in a Vedic verse, as well as the location of the verse in the collection. Where there was just one hapax (or none), the translators were prone to 'disagree' over the use of explicitation - particularly in the verses outside the so-called family books of the Rgveda, where subject matter varies more. Of about 260 such verses, explicitation was used by one translator in 70% of cases. In contrast, in over 300 such verses inside the family books, traditionally attributed to particular clans of poets, explicitation was used in about the same number of verses by either one or both translators (a chi-squared test indicated high statistical significance for that difference).

What accounts for these and other differences in the use of theonyms is that the translators not infrequently adjusted the ambiguous Vedic original. But both scholars, Geldner in the first and Elizarenkova in the last decades of the 20th century, did that systematically. Strategy is the keyword to explain such behaviour, for it can be argued that translational decisions can in fact be 'modelled' with the help of game theory. A situation in which people act independently, yet quite unintentionally arrive at a common result, is well known in economics. Think of individual investors who hedge against each other perhaps without being aware of it. Perhaps the translators of Indian hymns are similar to economic actors, in the sense that their lexical decisions aggregate to a shared strategy, as if they were trying to balance each others' translational choices.

Cartoon by Simon Goodway and Andrey Alexeyev. In fact, where there were several Vedic hapaxes in a single verse, the translators 'agreed' or 'disagreed' over the use of explicitation at a near 50:50 ratio – apparently for the benefit of a future reader who can now compare their variants and make more sense of the enigmatic original. Such is the phenomenon, the research concludes, of complementarity between translations of one and the same text, which offsets a potential meaning-gap between the source text and its rendition and results in a situation of uncertainty. The mathematics behind such complementarity fits that of the Matching Pennies game. One could speculate that it could occur when hymns and verses did not offer the translators sufficient information to intuitively estimate a 'fixed' probability of their definitive meaning. Thus in a way the translators were, indeed, playing a quessing game with the ancient poets. Or, perhaps, vice versa: the poets themselves were playing riddles, Indian brahmodyas, with the western scholars. Well, sometimes the games played by homo ludens transcend both time, space, and culture.

Table 1: Some parts-of-speech (POS) frequencies in Bowra's and Joly's translations. The larger the chi-squared value, the more significant is the contribution of a particular linguistic feature towards the general stylistic differences between the two translation.

POS	Bowra		Joly	
	Frequency	Chi-squared	Frequency	Chi-squared
Conjunctions	553	4.638	650	3.351
Determiners	185	6.789	349	4.906
Genitive "'s"	23	6.058	10	4.377
Prepositions	709	6.871	1156	4.965
Verbs	1284	7.012	1559	5.066

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Notes

- 1 Michael Oakes and Meng Ji (eds.). 2012. *Quantitative Methods* in Corpus-Based Translation Studies. Amsterdam & Philadelphia: John Benjamins; http://benjamins.com/#catalog/books/scl.51.
- 2 Aufrecht, Theodor (ed.). 1877. *Die Hymnen des Rigveda.* Bonn: A. Marcus.
- 3 Bowra, Edward Charles (translation). 1868. The Dream of the Red Chamber. Hong Kong: Noronha & Sons.
- Giles, Herbert Allen (translation). 1895. The Hong lou meng, commonly called *The dream of the red chamber*. Shanghai.
 Joly, Bencraft (translation). 1891. Dream of the Red Chamber.
- Auckland: Floating Press.

 6 Ji, Meng. 2012. "Hypothesis testing in corpus-based literary translation studies", in Oakes and Ji (eds.). 2012. *Quantitative*
- Methods in Corpus-Based Translation Studies. John Benjamins.
 Yang, Jiang (translation). 1978. Don Quijote de La Mancha (Tang Ji He Te). Beijing: People's Publisher.
- 8 Liu, Jingsheng (translation). 1995. Don Quijote de La Mancha (Tang Ji He Te). Beijing: Li River Publisher.
- 9 Sotov, Alexandre. 2012. "The games translators play: Lexical choice in Vedic translation", in Oakes and Ji (eds.). 2012. *Quantitative Methods in Corpus-Based Translation Studies*. John Benjamins.
- 10 Geldner, Karl Friedrich (translation). 1951. 'Der Rig-Veda'. Harvard oriental series 33-36. Cambridge MA: Harvard University Press.
- 11 Elizarenkova, Tatyana (translation). 1989. Rigveda. Moskva: Nauka.