The Beadle and the Paranymphs.

I am writing his a few minutes after completing my duties as a PhD examiner for the University of Utrecht. Lest my writing about this offends British sensibilities, I should point out that Dutch PhD defences are fully public and, in this case, net-cast, so the codes of confidentiality embedded in the UK PhD examination system do not apply. The whole event took place online, due to COVID-19 (which is beginning a horrible 3rd wave of infection in continental Europe), but an amazing amount of the spirit of the remarkable face-to-face version managed to transfer across.

There is a world of difference between a Netherlands thesis defence and a British *viva-voce* thesis exam (the 'viva'). In the UK version, the exam is 'real' and it is possible to fail it, and quite common to be given a list of 'corrections', some far from trivial, that must be done before the thesis is accepted. The exam is therefore a very private affair, usually conducted with only the candidate and examiners in the room, though for various reasons an experienced non-examining observer may also be appointed to keep an eye on things, particularly when an examiner is inexperienced or if the candidate has some reason of their own for wanting one. In the Netherlands, and in many other European countries, PhD study is longer, and the thesis contains papers that the candidate has already published in peer-reviewed journals, topped and tailed with a general introduction and discussion. Examiners read the thesis, and assess it rigorously and submit a report, but the candidate will only reach the stage of the 'defence' if the examiners are satisfied about the quality of the thesis itself. In other words, everyone knows the thing being 'defended' is not actually going to be 'attacked' in any serious way. The defence remains to serve two functions One is functional – having the candidate answer questions does prove that they are probably the author of the work. The other is ceremonial. A PhD thesis is a vast amount of work in these education systems, and it is nice for every one involved to have something mark the occasion of its bing accepted.

My appointment as one of the 'opponents' of the candidate was therefore accompanied by a long document explaining what would happen on the day. 'Opponent' is not the best translation, really – the role is of someone who *could* oppose the conferring of the doctorate at the ceremony, but who would not be expected to do so given that they have already 'passed' the thesis: the only reason for actually opposing would be clear evidence that the candidate was not in fact the author. It was also accompanied by the thesis itself. This was not, as in the UK, a bound series of word-processed pages and image plates, but a book produced to a full commercial standard that would not look out

of place at a book-store. Copies are produced for the opponents, for libraries, and also for the friends and colleagues of the candidate.

The instructions for the day included an indication of dress-code (suit, white shirt, tie, academic gown) to be adhered to even on-line, and an explanation of modes of address (we were to refer to one another as Professor so-and-so, not by first names, and to address the candidate as "Dear Candidate", using that exact title but not their name). It also included a detailed plan of what would happen, from our first being called to order in the (electronic version of the) Committee Room by The Beadle, a woman in a wonderful academic costume that could have been out of a painting by a Dutch Master, to our entrance to the (electronic) public Senate Hall, with its large audience. Here we would first meet Madam Candidate, flanked by her Paranymphs, whose supportive ceremonial role seemed to be rather like those of Bridesmaids at a wedding.

The Chair then called the meeting to order with a fearsome hammer (I was half expecting a gavel, but this was clearly a full-scale geological hammer!), and gave each Opponent in turn about eight minutes to ask their questions. From this very strong 'Madam Candidate', the replies were not only scientifically robust, but in some cases witty. After 45 minutes precisely, while an opponent was in mid-sentence, the Beadle announced '*Hora est*' in an imposing voice that would have been at home in a Wagner opera, and we were transported by the magic of Starleaf (think Zoom, but better) to the Committee Room to deliberate. Then we returned to hear the conferment of the degree and a long laudation by the candidate's sponsor (Roos Masereeuw, a brilliant pharmacologist whose work I have followed for years). There was time for applause, and for each of us to congratulate the supervisors, and to take our leave one by one until only the Beadle was left to preside over her virtual architecture.

The whole thing was a rather wonderful, and the adaptation of a presumably ancient ceremony to electronic space was masterful. It was a particular pleasure for me because the candidate had done project in my lab some years ago, before her PhD, and it was great to be able to see and celebrate her success. The only hint of sadness is that we in the UK do not have any equivalent of this ceremony, redolent of a cross between Hogwarts and Unseen University. And, of course, that the circumstances meant that there was no (physical) doctorate party afterwards!

Jamie Davies, East Lothian, April 2021