EXPLORING BIAS
New project at the University of Antwerp

Kurt Vanhoutte

My colleagues and I have recently acquired funding from the University of Antwerp in Belgium for a *B-magic* sister project called 'Understanding Ideological Bias through Data-Driven Methods'. Continuing our research on the magic lantern, the new interdisciplinary project aims to disclose bias – that is acquired prejudice – in children's literature, police reports and, most importantly, magic lantern slides. Historically speaking, people have always displayed explicit ideological bias towards certain racial, gender, class and age groups. But this 'bias' is not just about conscious beliefs and actions. Everyone picks up implicit bias as well: from parents, in school, by internalising society norms and through the mass media.

It is known that the lantern as a mass medium could be very persuasive in spreading knowledge to all layers of society, both literate and illiterate. Scientists, entertainers, teachers, priests, politicians and socio-cultural organisations all used projected visual narratives to inform, entertain, educate and mobilise audiences of up to more than a thousand people. As such, the lantern 'aided' the audience in forming a common cultural identity. Alongside colonial sets, this project focuses on temperance (anti-alcohol) slides, children's slides, scientific and religious slides to piece together a biased narrative from the past.

Now how can we examine these implicit ideological biases from the past? Within the new academic field of 'digital humanities', digital technologies are used to analyse large quantities of historical data: so-called 'big data'. To put this in the perspective of the lantern, we can estimate that over 300,000 slides in Europe remain underexamined, not even counting the 250,000 slides in Belgian archives. Traditional 'close viewing' or thorough manual examination quickly reaches its limits in the face of so much data. This task requires the support of computational methods for 'distant viewing' to obtain a more universal perspective. The large corpus of slides inevitably contains patterns and trends that can be identified by inputting the data in specifically designed computer programs. Modern 'machine learning' (artificial intelligence) can teach itself to recognise patterns and apply findings to even more big data. This is where faulty exaggerations come into play: sometimes the system wrongfully connects a learnt stereotype or characteristic to a new data entry. In short, this type of artificial intelligence not only captures but amplifies the ideological biases in the data it is focussing on.

In this project, the researchers aim to strategically turn this undesirable property to their advantage and exploit the study of ideological biases in, among other things, magic lantern slides and performances. One of the aims is also to be able to date slides and group them on the basis of iconographic similarities. Also, it will be possible to trace slides coming from printed sources and compare them. The project members are very happy to be able to work closely with Richard Crangle and Lucerna Magic Lantern Web Resource.

Temperance slides. Poison mortel *set, Tolra & Simonet, early 20th century (Bijou collection, KADOC Leuven)*