Corpus-driven visualization, learning and linguistics

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The contributions in the 2017 volume of HIPHIL Novum have several things in common. Not only do they derive from presentations at conferences and focus on the Hebrew Bible, but more important, they expose the significance of a linguistic database, not only as a tool for linguistic research, but also as a tutor for language learning and as a carrier of a virtual world in the Bible.

The first paper by Jens Bruun Kofoed on corpus-driven visualization of textual worlds discusses the potential of a unique collection of more than 5000 images of people, places and customs related to the world of the Bible available in an online repository for resources through the EU funded project EuroPLOT 2010-2013 [http://resources.3bmoodle.dk]. The goal of this project was to support persuasive reuses and repurposings of learning objects. This database of historical-archaeological pictures from primarily Israel-Palestine, but also form the broader Biblical scene in the Middle East, is used by the corpus-driven persuasive technology Bible Online Learner in order to make learning more effective and efficient through scaffolding. The Flood account in Genesis 6-9 is used as a case in point to demonstrate automated search of learning objects. Bible Online Learner ties cultural and archaeological material (that is, a picture, a sound, a video, or a piece of text) as links to entries of the Hebrew and Greek dictionary. Through this technology learning designers can reuse material accessible on the internet in order to integrate other digital library formats (e.g., Bible Odyssey, Wikimedia Commons, etc.) for canonical citation. This material was presented at SBL in November 2016.

The other two papers were presented at a very important Lorentz workshop on Biblical Scholarship and Humanities Computing: Data Types, Text, Language and Interpretation in the Spring of 2012 (http://www.lorentzcenter.nl/lc/web/2012/480/info.php3?wsid=480). They were both submitted to a journal in 2012 and peer-viewed, and then updated a second time in 2015, but it is only now that we have the opportunity to publish these papers. Like the first paper, they also both use the potential of the same corpus, the databased developed over 40 years and now curated and further developed by the Eep Talstra Center for Bible and Computer (ETCBC) at the Vrije Universiteit in Amsterdam.

The paper by Reinoud Oosting is a contribution based on current assumption in biblical scholarship that the Book of Isaiah has been reworked and updated during a long period of development and transmission, and it then examines how this produced syntactic changes in its textual tradition. The first focuses on interchange of prepositions in the Masoretic Text. The second part traces changes int the text-critical history of the text and its trajectory into the Dead Sea scrolls and the Old Greek Translation, the Septuagint. The paper demonstrates how computer-assisted tools can give insight into the complex history of the Hebrew text of Isaiah.

The paper by Nicolai Winther-Nielsen was the first of a series of publications on the core notion of persuasive technology for language learning. It has lived its own life as an “ms” reference ever since and subsequent it has been unfolded into a full-blown theory and a more advanced technology. The paper was originally written for PLOTLearner, and was later updated to the standard of Bible Online Learner, but otherwise the seminal ideas of corpus-driven, learner-directed acquisition of Biblical Hebrew through the ETCBC-database are retained as a contribution to the European Union project EuroPLOT 2010-2013 on how users learn with, in, and around a corpus-application.