Recommended Reading/Works Cited for “The Cultural Meaning of Programming Languages,” a talk by Gabriele Hayden given at csv,conf,v5, May 2020.

Chandra, Vikram. *Geek Sublime: The Beauty of Code, the Code of Beauty*. Graywolf Press, 2014. A beautiful series of literary essays from a novelist who is also a programmer. Vikram Chandra discusses aesthetics in literature and code, Pāṇini’s grammar, and gender dynamics of programming in the US vs India.

Delaney, Samuel. *Babel-17*. 1966. Winner of the Nebula Award, *Babel-17* tells the story of Rydra Wong, poet and linguist, who works to decipher a secret language that is the key to an enemy’s deadly force. Delaney, writing in an Afro-futurist tradition, brings a radical, queer perspective to a novel that (unlike his later work) has a relatively traditional narrative structure. The book’s plot premise is based in a strong version of the Sapir-Whorf hypothesis, which helped inspire the creation of Ruby.

Marino, Mark C. “FLOW-MATIC.” *Critical Code Studies.* The MIT Press, 2020. 129–160. https://doi.org/10.7551/mitpress/12122.001.0001 This chapter documents the long history of men dissing programming languages as “for sissies.” It reads closely Grace Hopper’s language FLOW-MATIC, precursor to COBOL and one of the first computing languages targeted at business managers, and explores the complexities of trying to make a language more “accessible” by making it “in English.”

Matsumoto, Yukihiro. “The Power and Philosophy or Ruby (or, how to create *Babel-17*),” O’Reilly Open Source Convention (oscon), Portland, OR, August 11, 2003. https://web.archive.org/web/20030811071449/http://www.rubyist.net/~matz/slides/oscon2003/mgp00001.html A brilliant slide deck on the ideals behind the Ruby programming language with some snarky commentary on the dominance of English in computing.

Posner, Miriam. “Javascript is for Girls.” *Logic Magazine*. Issue 1: Intelligence. March 15, 2017. https://logicmag.io/intelligence/javascript-is-for-girls/ A smart summary of the current dynamic.

Yang, Jean, & Rabkin, Ari. C is Manly, Python is for “n00bs”: How False Stereotypes Turn Into Technical “Truths.” *Model View Culture*. January 20, 2015. https://modelviewculture.com/pieces/c-is-manly-python-is-for-n00bs-how-false-stereotypes-turn-into-technical-truths An argument by two computer scientists who have worked on designing programming languages that “we need to question our “objective” and “technical” opinions about programming languages.” Rabkin also worked on the sociology of programming language adoption with Leo Meyerovitch; see their GitHub (https://lmeyerov.github.io/projects/socioplt/viz/index.html), and this talk by Meyerovitch https://youtu.be/M4Gsl8sVgdQ for Strange Loop. The slide I “quote” in my talk is from the slideshow “The Sociology of Programming Language Adoption,” available at https://researcher.watson.ibm.com/researcher/files/us-rabbah/plday13-meyerovich.pdf).

More Reading

Bod, R. (2015). A Comparative Framework for Studying the Histories of the Humanities and Science. Isis, 106(2), 367–377. https://doi.org/10.1086/681979 An argument for computer science as having, in part, a humanist genealogy.

Chow, T., & Charles, M. (2019). An Inegalitarian Paradox: On the Uneven Gendering of Computing Work around the World. In C. Frieze & J. L. Quesenberry (Eds.), *Cracking the Digital Ceiling* (1st ed., pp. 25–45). Cambridge University Press. https://doi.org/10.1017/9781108609081.002 A study that finds that the percentage of women in computing is inversely proportional to the wealth of the country in question.Tiffany Chow and Maria Charles show data that challenge our assumptions as we learn that increased gender equity, higher education, and modernization do not lead to higher rates of women in computing.

Iverson, K. E. (1980). Notation as a Tool of Thought. *Communications of the ACM*, 23(8), 22. https://doi.org/10.1145/358896.358899 Another example of a computer scientist influenced by the Sapir-Whorf hypothesis.

Kadvany, J. (2016). Pāṇini's Grammar and Modern Computation. *History & Philosophy of Logic*, 37(4), 325–346. https://doi.org/10.1080/01445340.2015.1121439 An example of a scholar reading the 4th c BCE grammarian Pāṇini's work as a formal or computing language.

Lopez, Davina. *The Apostle to the Conquered: Reimagining Paul's Mission*. Fortress Press, 2010. One of any number of scholarly works from any number of eras that discusses how metaphors of sexual violence and gendered difference structure the language of conquest in the western world. This one in particular is a very smart womanist reading of St. Paul in historical context.

Meyerovich, L. A., & Rabkin, A. S. (2012). "Socio-PLT: Principles for programming language adoption." Proceedings of the ACM International Symposium on New Ideas, New Paradigms, and Reflections on Programming and Software - Onward! '12, 39. https://doi.org/10.1145/2384592.2384597