

Cylons, Gaylons and Gay Grammar:

Celebrating Alan Turing's centenary

Yuval Marton

Received: 24 November 2012 / Accepted: 15 August 2013 / Published online: 17 October 2013
© Springer-Verlag London 2013

Abstract We present a few linguistic and bio-futuristic musings in honor of Alan Turing and his legacy. We follow some of the connections Turing used or made between humanness, language, intelligence, deception, gender, sexual orientation, and computational modeling in his exploration of the world. We also take inspiration and continue further along some of these lines.

Keywords Turing · Human mind · Human language · Humanness · Inflection · Grammar · Computational modeling · Sexual orientation · Deception

*Turing believes machines think
Turing lies with men
Therefore machines do not think*

Alan Turing

1 Introduction

Alan Turing (1912–1954) is mostly known for breaking the German Enigma code during World War II (Turing 1939; Copeland 2004) and for what is now called *the Turing test*: testing computers' performance by how well they pass as humans in their communication with a human. Turing (as well as John von Neumann) is also regarded as one of the fathers of the modern computer architecture—a general-purpose machine, instead of a dedicated machine such as a

pocket calculator or an electronic game (Turing 1938; Herken 1995; Petzold 2008; Hodges 2001). His theoretical contributions to computer science and artificial intelligence are still widely studied today (e.g., *the universal Turing machine*). Turing was very interested in modeling the human mind and understanding the concept of *thinking* (Turing 1947, 1950, 1956; Herken 1995; Copeland 2004; Hodges 2001). Still known, but perhaps not as famous, are his contributions to (computational) biology and specifically morphogenesis: the relation between genes and the animal forms shaped by the plan they encode (Turing 1952, Ramakrishnan 2013).

Alan Turing died, probably committed suicide, after being prosecuted and persecuted for his sexual orientation. In his last years, he was denied from continuing working in his previous research position and was forced to undergo “chemical castration.” During that last period, he reported depression and low concentration. We can only imagine how far his contributions to science and philosophy of mind would have gone, had he continued to live and work uninterrupted. For more about his life and research, see Copeland (2004), Hodges (2001), Hofstadter (2006), and others.

We explore here a few connections and intersections between main areas of his interest:

- humanness and human mind,
- human and artificial language,
- human and artificial intelligence (AI),
- human and artificial (machine) deception,
- gender and sexual orientation, and
- computational modeling.

The aim of this article is not to report any scientific findings, nor to provide another survey of Alan Turing's work. Instead, we attempt to make a bite-size introduction of, and ask somewhat unorthodox further questions in, the above-mentioned areas—inspired by and honoring Turing's legacy.

Based on a talk that the author gave at “Brainstorming Turing: Celebrating Alan Turing” symposium, held at UCLA on May 25, 2012, while the author was at the IBM Watson Research Center, NY.

Y. Marton (✉)
Microsoft Corporation, City Center Plaza, Bellevue, WA, USA
e-mail: yumarton@microsoft.com
URL: <http://www1.ccls.columbia.edu/~ymarton>