

Bernard Dionysius Geoghegan, **Code: From Information Theory to French Theory**, Durham, NC: Duke University Press, 2022, 272 pp., \$26.95 (paperback).

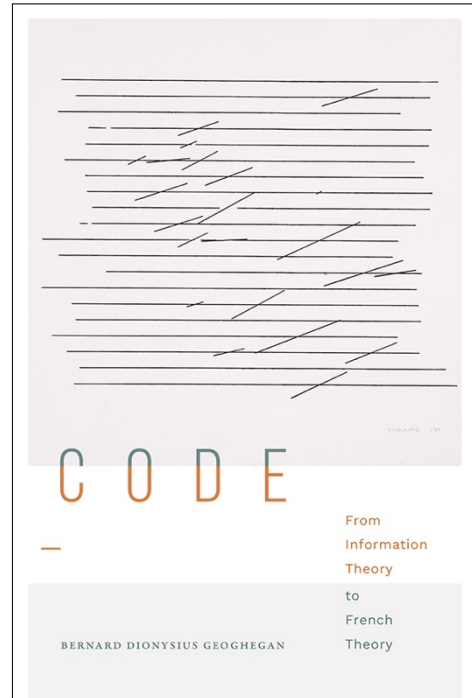
Reviewed by
Tsvetelina Hristova
University of Southampton

Code: From Information Theory to French

Theory offers a reevaluation of the history of cybernetics in the United States and France, focusing on the period between 1940 and 1970. Geoghegan's book departs from the established historical narrative linking the development of cybernetics to military science and engineering in the wake of the Second World War and its aftermath. While acknowledging the role of both the colony and the military-punitive apparatus of the state as significant influences on the emergence of cybernetics, he sees the growing interest in communication sciences, particularly code as a principle of the production and circulation of meaning, as attempts to address social, political, and economic problems in urban industrialized societies. The result is a book that offers a provocative intellectual history of the development of contemporary social sciences and humanities and their epistemological and institutional genealogies. Geoghegan

argues that both critical studies of technology and the discipline of digital humanities share a genealogy that traces their current theoretical and methodological apparatus to the historical moment of interwar and postwar U.S. cybernetics. He combines intellectual history with analysis of personal life trajectories, interpersonal relations, and institutional developments. Each of these aspects could be developed separately in more detail, and the book navigates several planes of argument, scope, and focus at the same time.

In the Introduction ("Codification"), Geoghegan proposes an interpretative vocabulary, defining the key concepts that inform the connections that he makes through his analysis. He sets out his central line of argument for the book, which insists that two key developments in our contemporary academia—the push toward theoretical originality and interdisciplinarity—have their origins in the interwar and postwar periods in the United States. Geoghegan sees the establishment of these two trends as a consequence of the interplay of different actors. First, in the interwar and postwar period, robber baron philanthropic foundations like the Rockefeller Foundation, Carnegie, Andrew Mellon, and the Josiah Macy Jr. Foundation, among others, became active in financially supporting particular types of research with the intention to reform scholarly methodology in the social sciences and humanities in a way that makes these disciplines more apt to analyze and respond to contemporaneous social and political crises. Second, a network of scholars and scientists formed around institutions and projects supported by these foundations and actively worked to introduce new theoretical and methodological approaches.



Faced with the problems of social inequality and political division in the postwar United States, scholars and technocrats embraced communication theory and cybernetics, whose focus on systems, adaptation, and deviation depoliticized the contemporaneous crises and paved the path to a technocratic paradigm in the social sciences. Geoghegan draws parallels between the development of technocratic policies of knowledge production and governance, on one hand, and what he refers to as “theory” in the field of social sciences and humanities on the other hand. His core argument is that “the idea of the human sciences as interdisciplinary, theoretical, collaborative, and aided by empirical data figured prominently in decades of efforts by scientific philanthropies to overturn ‘armchair’ philosophizing and speculation” (pp. 48–49). Thus, *Code: From Information Theory to French Theory* ambitiously sets out to revisit the history of contemporary social theory, tracing its transformation to the time of the birth of cybernetics and the famous Macy Conferences but arguing that the primary drivers behind these changes were not the computation and engineering sciences or the military apparatus but, rather, scientific philanthropies and entrepreneurial social scholars.

In the first chapter (“Foundations for Informatics: Technocracy, Philanthropy, and Communications Sciences”), Geoghegan outlines the leading role of robber baron scientific philanthropies in actively working to transform the humanities and social sciences in the interwar period away from the legacy of hermeneutics and toward an approach that directly responds to societal and political problems of the modern industrial age. Geoghegan sees the role of Warren Weaver, then director of the Rockefeller Foundation, as a focal point connecting the role of the robber baron philanthropies with the rise of information theory. Weaver’s own research on the mathematical model of communication, alongside Claude Shannon, provided additional impetus in solidifying communication science as the new theoretical paradigm across different disciplines.

Chapter two (“Pattern Recognition: Data Capture in Colonies, Clinics, and Suburbs”) introduces anthropologists Margaret Mead and Gregory Bateson as the masterminds behind the cybernetic turn in social sciences through their active role in initiating interdisciplinary networks, including the influential Macy Conferences. Their role exemplifies a particular complicity of the social sciences in crafting new technocratic, scientifically informed methods of social surveillance and engineering as an instigator rather than mere instrument in practices of colonial science and control. This chapter builds one of Geoghegan’s central claims—that it was scholars in the humanities and social sciences and their strive for experimenting and reforming their disciplinary field through the introduction of new methods or data collection and analysis that ultimately lead to the adoption of communication theory and cybernetics as paradigms with a lasting impact on academia and the science and practice of governance. An important and somehow unsettling point Geoghegan makes in this chapter is that Mead and Bateson’s hunger for experimental methods of data collection and analysis led to indirect collusions with the imperial apparatus, since “societies subordinated to imperial power and hemmed in by its violence offered better mines for social data. Western political liberties and privileges frustrated comparable analysis” (p. 67).

Chapter three (“Poeticizing Cybernetics: An Informatic Infrastructure for Structural Linguistics”) follows the expansion of the cybernetic theory and method outside of U.S. academia through cross-contamination with the tradition of Soviet and Czech structuralism influenced by the linguistic theory developed in Ferdinand de Saussure’s (2011) *Course on General Linguistics*, originally conducted in 1916.

The chapter focuses on the Soviet-American scholar of linguistics Roman Jakobson, whose incorporation into U.S. scientific institutions placed language at the center of theoretical inquiry and politicized science. The structuralist analysis of Russia served as an example of the complex notion of encoding and decoding that emerged in the interaction between different disciplines and traditions. This notion of code in language as an amendable structure that bears relation to the apparatus of state power and organization but also to the creative forces of poetics was used as a key to understanding the Soviet system in toto.

Chapter four ("Theory for Administrators: The Ambivalent Technocracy of Claude Lévi-Strauss") traces the growing influence of the theories and methods of cybernetics on the development of European anthropology. Lévi-Strauss, who is at the center of the narrative of this chapter, changed his approach to anthropology after an encounter with Roman Jakobson introduced him to structuralism. His work in interpreting the social structures of colonized societies as a combination of underlying codes and binary oppositions theorized the "savage mind" as a model of human thought, culture, and economy that has been gradually fragmented and complicated by the entropic forces of progress, technology, and civilization. This somehow romanticized image of the peoples in French colonies stood in a conflicted relationship to his increasing involvement with French bureaucracy. Here, Geoghegan notes the distinct form that technocracy took in the French context, through the example of another anthropologist, Marcel Mauss. The French etatist model of technocracy diverged significantly from the agendas of U.S. scientific philanthropies and impeded their attempts to exercise influence over French scholarship until Levi-Strauss.

Chapter five ("Learning to Code: Cybernetics and French Theory") traces the influence of cybernetics in continental scholarship after Levi-Strauss. Geoghegan uses the figure of Jacques Lacan to follow the ambiguous reception of the cybernetic tradition in French theory. Departing radically from the pragmatic concerns of U.S. technocracy, Lacan embraced the conceptual apparatus of codes, machines, and relays while leaning heavily on deliberate obscurity. In the work of authors like Roland Barthes, Julia Kristeva, and others, code became increasingly interpreted through notions of power, structure, and oppression, seen not as a utilitarian communicative matrix but as attempts to homogenize and silence. The increasing complexity of cultural theory, Geoghegan argues, was partially a reaction against the complicities of social sciences and humanities in reductive notions of culture and society instrumentalized by scientific technocracies. Institutionally, this period developed its own knowledge infrastructures such as seminars and labs.

In the conclusion ("Coding Today: Toward an Analysis of Cultural Analytics"), Geoghegan critiques current fantasies of big data analysis eradicating the need for social and cultural theory, which stem from the amnesia about the role of the social sciences and humanities in shaping the history of code, cultural analytics, and artificial intelligence.

This volume will be of interest to scholars, teachers, and students in media and communication studies, anthropology, history of knowledge and ideas, critical data studies, and the humanities more generally. Its lucid style, the focus on personal biographies and relations, as well as the detailed explanation of its use of theoretical and disciplinary concepts in the introduction, make it accessible to the general readership with no prior knowledge of the history of cybernetics.

Reference

de Saussure, F. (2011). *Course in general linguistics* (W. Baskin, Trans.). New York, NY: Columbia University Press.