

Chapter 11

The Fashionable Functions Reloaded: An Updated Google Ngram View of Trends in Functional Differentiation (1800–2000)

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ABSTRACT

Using the updated Google Book corpus dataset generated in July 2012, we analyze the largest available corpus of digitalized books to review social macro trends such as the secularization, politicization, economization, and mediatization of society. These familiar trend statements are tested through a comparative analysis of word frequency time-series plots for the English, French, and German language area produced by means of the enhanced Google Ngram Viewer, the online graphing tool that charts annual word counts as found in the Google Book corpus. The results: a) confirm that the importance of the political system, religion, economy, and mass media features significant change in time and considerable regional differences and b) suggest that visions of economized or capitalist societies are intellectual artifacts rather than appropriate descriptions of society.

INTRODUCTION

In this updated version of one of the first applications of culturomics in sociology (Roth, 2014), we improved readability, incorporated feedback, and drew on the second version of the Google Book corpus dataset to show how big data analysis may check and challenge old familiar self-definitions of modern society. The starting point of our venture remained the distinction between autonomous function systems such as the economy, science, art, religion, etc. In fact, this form of functional differentiation is considered

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a core concept of modern societies (Leydesdorff, 2002; Beck et al., 2003; Berger, 2003; Vanderstraeten, 2005; Brier, 2006; Baecker, 2007; Kjaer, 2010; Bergthaller & Schinko, 2011; Roth, 2015a). Without functional differentiation, there would be no difference between truth and money, a hospital would be considered the same as a bank, and there would be no sense in the critiques of doping, corruption, or the selling of indulgences. In like manner, the larger part of contemporary definitions and criticisms of modern society would have to do without their most basic categories, since all observations of secularization, economization, and mediatization implicitly refer to an underlying concept of functional differentiation.

Though generally accepted, the idea that particular function systems are more relevant to society than others is not understood without ambiguity. On the one hand, in the light of the fundamental equivalence (Vanderstraeten, 2005; Jönhill, 2012) and autonomy (Tsivacou, 2005; Valentinov, 2012) of the function systems there is no way of arguing that the political system or the economy is essentially more important than religion or sport, *per se*. On the other hand, there seems to be plenty of empirical evidence of such imbalances in terms of the just mentioned trend observations.

This contradiction can be resolved by stating that it is not despite, but because of their basic equivalence that function systems can be ranked at all because if the function systems were essentially unequal, they would already be ranked and, therefore, could no longer be ranked. In this sense, the function systems can be treated as nominal data that feature a skewed distribution whenever it comes to the analysis of concrete segments of society. Hence, modern societies so far have been defined in terms of different biases to particular function systems with the most prominent cases being the definition of society as capitalist (Roth, 2015b). Though there is still little consensus on the question of whether capitalism results either from the primacy of a particular form of politics or from the primacy of the economy (Risse, 2003; Wallerstein, 2003; Foucault, 2008; Urry, 2010; Lash, 2007; Madra & Adaman, 2014), most people would basically agree on the idea that present societies are subject to an economization of collective goals (Alexander, 1985). This “increasing influence of economic factors and values on the political agenda and other areas of society” (Blumler & Kavanagh, 1999, p. 210) includes the economization of

- Health (Musick, 1999; Cartier, 2003; Ewert, 2009; Brown et al., 2011),
- Art (Velthuis, 2003; Behnke, 2007; Eikhof & Haunschild, 2007; Kjaer, 2010; De Valick, 2014),
- Science (Penders et al., 2009; Berman, 2013),
- Education (Fludernik, 2005; Wilkesmann & Schmid, 2012; Spring, 2015),
- Religion (Robertson, 1992; Wannewetsch, 2008), and, as a matter of course,
- Society as a whole (Polanyi, 1957; Habermas & McCarthy, 1985; Schmidt, 1993; Altvater & Mahnkopf, 1996; Enderle, 1997; Chomsky, 1999; Sayer, 1999; Finch, 2007; Schimank & Volkmann, 2008).

As a result of this “economic turn” (Smart, 2003) or fetishization of the economy (Foucault, 2008), economization emerges so omnipresent and dominant that even the proliferation of economics is taken for an indicator of economization (Çalışkan & Callon, 2010)¹ or a need of de-economization (Latour, 2004), respectively. Nonetheless, there is also discussion on further forms of trend statements and predictions, which includes sometimes concurrent, sometimes competing definitions of society as:

- Mediatized (Dennis, 1978; Eaman, 1987; Castells, 1996; Chomsky, 1997; Blumler & Kavanagh, 1999; Croteau & Hoynes, 2003; Schulz, 2004; Hjarvard, 2008, 2013; Mazzoleni, 2008; Moon, 2012; Esser & Strömbäck, 2014),

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