

“Our Word is Our Weapon”

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First and foremost, I'd like to acknowledge Suresh for dragging me, kicking and screaming, to the finish line of this dissertation.

Dedication

Dedicated to those who struggle *contra el gran enemigo del género humano.*

We use newly-developed tools emerging out of the “neural revolution” in computational linguistics to assess the interplay between major political events and the texts which both influence and are influenced by them. We illustrate throughout how these tools enable new insights—for example, by providing evidence for or against differing interpretations of an event derived from statistically-principled and representative analyses of textual evidence—but do not thereby diminish the importance of deep “manual” engagement with the evidence and creativity on the part of the researcher.

We start with an analysis of the 1789 “grievance books” which, requested by King Louis XVI as a way to assess the roots of discontent across the various estates and geographic regions of France, provide an unprecedented source of data for historians: a comprehensive survey of public sentiment on the immediate eve of a mass revolutionary upheaval. Since there are 60k *cahiers*, however, far too many for any one researcher or team of researchers to read and integrate, we show how a computational-linguistic approach can minimize selection bias and thus enable an understanding of the origins of the French Revolution based on a representative analysis of the full body of available evidence.

From this cross-sectional study of 1789 we move to a pair of time-series analyses of the development and diffusion of socialist ideology, from the early days of the Enlightenment to the fall of the Soviet Union. The first study examines 19th-century socialist thought from its Enlightenment and Romantic origins to the ascendance of Marxism, using computational tools to (a) trace the relative influence of earlier German, French, and British thought on the formation of Marx’s critique of capitalism, and then (b) analyze his polemical interventions into socialist discourse and how they succeeded in moving it away from the moral-philosophical frame of Robert Owen and Wilhelm Weitling and towards one employing a political-economic vocabulary rooted in Adam Smith and David Ricardo. The second study picks up where the first leaves off, tracing the global diffusion of “scientific” Marxism during the 20th century through the cultural-diplomatic initiatives of the Soviet Union. We show how the text-analytic methods of the previous study can be combined with

more standard regression methods, in this case applied to data on global book publication and distribution, to complement the IR literature on foreign military intervention with a quantitative study of Soviet “ideological intervention”.

Our final study combines the cross-sectional and time-series approaches of previous chapters, examining how two major organizations during the First Palestinian Intifada—Hamas and the United National Command—competed with and responded to one another in their communiqués attempting to steer the course of the uprising. We show how text-reuse and paraphrase detection algorithms, in combination with the topic-detection methods of previous chapters, reveal a systematic adoption of Hamas’ language and themes in the communiqués of the UNC as the latter’s influence declined.

The dissertation is a collection of four studies, arranged in chronological order by subject and united by the common theme of how recent breakthroughs in computational linguistics can be employed to gain a deeper understanding of historical events. The four chapters are titled as follows:

1. “Simultaneous and Systematic Abolition”?: Text-Analyzing the 1789 *Cahiers de Doléances*
2. The Geometry of Political Discourse: Mapping 19th Century Capitalist Critique Using Tools from Natural Language Processing
3. Quantifying Cultural Diplomacy: The Translation and Diffusion of Marxism from the Communist Manifesto to the Cold War
4. *Fi Hadal Habs*: Strategic Speech Acts and Adaptation in the First Intifada’s War of Words

The motivating research question is: what can we learn, as social scientists, from data in the form of natural language text rather than the “standard” numeric data of empirical social-scientific inquiry? More importantly, perhaps, what can we *not* learn using this approach? This work aims to address both of these questions—the possibilities and limitations of quantitative text-analysis in social science—by way of a chronological exploration

of four historical epochs: the French Revolution, the 19th century genesis and diffusion of socialism, Cold War competition for influence in the Third World, and the eclipse of secular Soviet-aligned groups by political-Islamic forces in the First Palestinian Intifada. In each study we take care to emphasize how computational tools can *augment*, but not replace, researchers' investigative capacities. Creativity, critical thinking, and the ability to discover novel connections among disparate data points all remain central to the endeavor.

Chapter 1: “Simultaneous and Systematic Abolition”?

Cahiers de Doléances

For the ideal the French Revolution set before it was not merely a change in the French social system, but nothing short of a regeneration of the whole human race

[391], pp. 12–13

First it changed laws, then mores, customs, and even language. Having shredded the fabric of government, it undermined the foundations of society and ultimately went after God himself. [The Revoluton was] a phenomenon so new and so different from anything that had ever happened before, yet so monstrous and incomprehensible, that the human mind could not grasp it.

[391], p. 13

Read the *cahiers*. It’s all in the *cahiers*.

Jean Jules Jusserand, French

Ambassador to the U.S., 1902–1924

1.1 Introduction

Political revolt is as old as politics itself. While many have documented the histories of popular struggles, few have offered a satisfying answer to the causal question: what types of social or ideological forces could galvanize a group of people to risk life and limb directly confronting their oppressors? Speculative theories regarding the role of ideology in revolutions are not hard to come by: from Plato on Athenian revolts of 380 BC [324] to Hobbes on the 17th-century Leveller Revolution [189] to Gilbert Achcar on the Arab Spring [3]¹, writers have struggled to reconcile the apparent tension between the broad socio-cultural forces that act upon all revolutionary participants and the individual agency, spontaneity, and ingenuity of each participant. Grappling with this same tension, the vast majority of empirical, or data-driven studies have focused on “material conditions” narrowly defined: numerically-tractable demographic, economic, and socio-cultural variables.

In this work, we aim to take the methodological sophistication of these empirical studies and move them into the realm of rhetoric, ideology, and the history of political thought using natural language processing algorithms²: what role do these less-easily-measurable factors play in galvanizing mass resistance? One of the biggest challenges in this area is the same as that faced by any researcher in the humanities: too many texts, not enough time³. If we aim to detect which properties of revolutionary texts are predictive of successful mass mobilization, our sample must include not only well-known influential texts (Sieyes’ *What*

¹Not to mention a rich literature on formal models of revolution, from Ted Gurr’s individual-psychological account *Why Men Rebel* [172] to Daron Acemoglu and James Robinson’s institution-centered model in “A Theory of Political Transitions” [2]. For a captivating exception to this material-conditions-vs.-ideology dichotomy within the literature on social movements and revolution, see Sidney Tarrow’s *The Language of Contention: Revolutions in Words, 1688-2012* [386].

²On this point, however, we provide the caveat that the “material” and the “ideological” or “cultural” are in no way separate or even independent realms: for a simple but groundbreaking argument regarding ideology and culture itself as material phenomena, see [377].

³One particularly controversial “resolution” of this dilemma comes from the Stanford LitLab’s “distant reading” paradigm [291], in which the researcher doesn’t “read” texts at all in the standard sense of the word, but instead uses computational methods to derive insights from massive literary corpora. In this work we adopt the less extreme view that digital methods should serve simply as tools to aid humanists and historians in their research, in the same way that dictionaries and indices at the end of books expanded researchers’ toolkits when they were introduced.

is the Third Estate? [367], the *Communist Manifesto* [273], etc.) but also the exponentially larger set of non-influential texts from the same eras, a sample too large for any one reader to digest, much less understand⁴. But developments in artificial intelligence over the past few decades—specifically in natural language processing or computational linguistics—provide social scientists an entirely new toolbox with which to dive into this ocean of text. This work will exhibit one way these tools can be used to gain insights into world-historical events, insights that would otherwise have required decades of meticulous work by dozens of researchers to obtain.

More broadly, we intend for this research to serve as groundwork for a “computational political theory”—a quantitatively-minded approach to political theory. This approach would view political speech acts, ideologies and political thought expressed in texts as observed manifestations of unobserved political-ideological latent variables⁵, with the latter representing various “explanans” of interest to political theorists: the political ideologies said to be “held” by the political actors under examination, for example, or their inferred positions within a broader social structure (in short, any phenomenon or set of phenomena which political theorists believe to be important for understanding the dynamics of some socio-historical situation of interest)⁶.

⁴Analyses which include only “successful” cases commit the fallacy of *selection on the dependent variable*, and are fundamentally incapable of detecting which properties of the studied cases are and are not indicative of successful outcomes. Briefly: we cannot conclude that a linguistic property X_i is indicative of success even in the extreme case where X_i is present in every “successful” text, since it may simply be the case that *all* texts, whether successful or not, have the property X_i . This fallacy is, unfortunately, extremely common and almost natural in everyday life, for example in anecdotal accounts of serial killers which claim to discern traits common to serial killers—abusive childhoods and mental illnesses, etc.—but fail to compare the prevalence of these traits in serial killers to their prevalence in society more generally.

⁵On the nomenclature of “observed” vs. “latent” variables, see Appendix 1.A, an overview of the Probabilistic Graphical Models framework from which these terms originate.

⁶In the philosophy of science, the term “explanandum” (plural “explananda”) denotes a phenomenon which a scientist hopes to explain, while the term “explanans” (plural “explanantia”) denotes a phenomenon which is invoked by a scientist to explain an explanandum (or multiple explananda). A useful visual for understanding the relationship between observed and latent variables is the standard representation of a Hidden Markov Model, given in Figure 1.1 below: The variables on the top row (X_1, X_2, X_3) represent empirical observations—in our case political texts—while the variables on the bottom row (S_1, S_2, S_3) are our political-ideological latent variables, the “underlying” phenomena which we believe to be salient for understanding the political texts. For more on “explanans” vs. “explanandia” see [132].

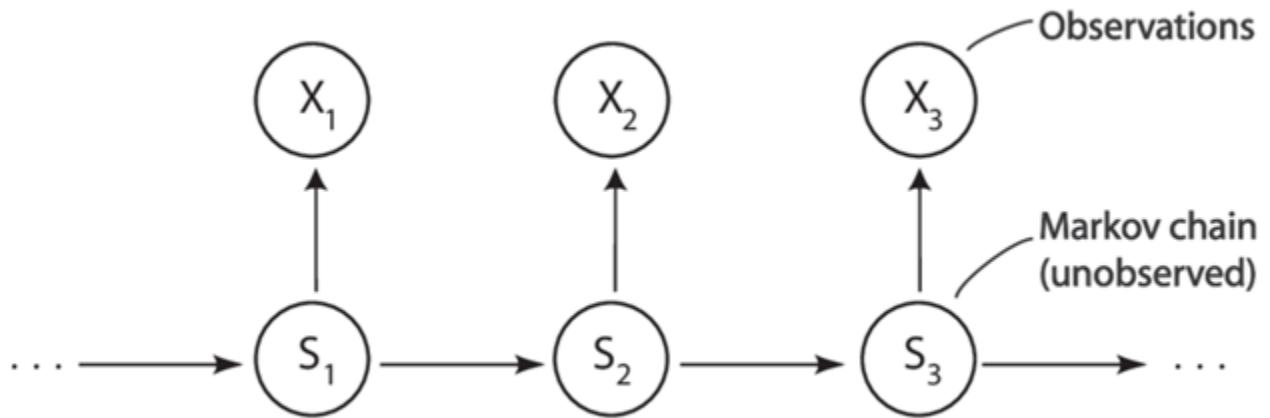


Figure 1.1: The standard visual representation of a Hidden Markov Model. The X_i variables are those we can empirically observe, like political texts, while the S_i variables represent the “underlying” phenomena which we believe to have explanatory power with respect to the observations (the X_i s) (Image source)

1.2 Methods

When conducting historical inquiry, a researcher typically begins by trying to acquire some non-insignificant portion of the extant knowledge on their subject, and subsequently spends years “excavating” evidence, gaining access to and examining archives. Computational methods can automate important but tedious portions of this archival work, allowing researchers to commit their full attention to the core steps of the research process: developing hypotheses, interpreting data, and drawing inductive conclusions. In other words, these algorithms can serve as “digital research assistants,” sifting through the massive amounts of information contained in an archive and identifying which texts and which relationships between texts are most salient to the researcher’s task.

The process of empirical data analysis, whether quantitative, qualitative, or a mix of both, consists of what John Tukey calls an “exploratory data analysis” phase and a “confirmatory data analysis” phase [399]. In the former, researchers aim to approach the data with as few preconceived notions as possible about what it “says”. In other words, they

try as hard as possible to let the data “speak for itself”, gradually identifying patterns and associations before constructing a set of initial hypotheses. The subsequent “confirmatory” stage corresponds in most cases to the more standard statistical hypothesis testing procedures taught in introductory statistics courses: crafting dichotomous null and alternative hypotheses, calculating test statistics, and obtaining p -values. In the following sections I discuss two separate “classes” of text analysis algorithms, topic models and classifiers, which can vastly expand the possibilities available to researchers in these two stages.

1.2.1 Topic Modeling

The first step to understanding any textual archive is to develop a rough schema of topics covered in the corpus, to figure out what each text is “about”, and to group the texts accordingly. This thematic categorization, the act of transforming an archive of texts into one partitioned into sections, often takes up a massive chunk of research time and resources. Given this resource bottleneck, this transformation is precisely what one of the first text analysis methods, Latent Semantic Analysis (LSA), was created to do, and (somewhat miraculously) it does so without any input required from the researcher besides having the texts in some digitized format.

Scale-wise, LSA is already leaps and bounds beyond human capabilities, but we can do better: in 2003, David Blei, Andrew Ng, and Michael I. Jordan developed an extension to LSA called Latent Dirichlet Analysis (LDA), which “zooms in” on each document and actually learns distributions over topics for each token (word). That is, while LSA places each document into a single category, LDA derives a more detailed summary of each document, like “25% of this document is about computer science and 75% is about linguistics,” a more realistic model given the tendency for most written documents to range across multiple topics (for example, a news article introducing a new technology and then discussing its potential societal impact). In fact, if a researcher does want a single category for each document, they can simply choose the topic with the highest proportion: linguistics, in the case of our

example document. This represents nothing short of a revolution for social science research. For a researcher hoping to study taxation practices in *ancien régime* France, for example, this means the difference between reading through every text in the archive and reading through the small subset of the texts which heavily discuss a “taxation” topic. Depending on the time and resources available to the researcher, for example, they can read the N documents with the highest proportions devoted to taxation: the more resources are available, the higher this N can be.

Both LSA and LDA fall into the category of “unsupervised” algorithms, given the lack of user intervention in the topic-learning process. While this approach stays true to the idea of “pure” exploratory data analysis, it is rare for a researcher to have absolutely no idea what topics lie within an archive. More commonly, researchers come to the texts with a rough set of topics in mind and want to see which texts fall within these topics, thus shifting the nature of the research more towards confirmatory data analysis. In this case, they can use a “semi-supervised” Labeled LDA algorithm like CorEx [152], which allows them to “suggest” salient topics to the LDA algorithm before it runs. In our example, Labeled LDA would allow researchers to suggest single keywords like “algorithm” and keyword groups like {“language”, “linguistic”}, thus nudging the LDA algorithm towards detecting computer science and linguistics topics.

Supervised algorithms are probably the most studied and widely-used of our three types of learning. In direct confirmatory analysis, the existence of a pre-existing codebook or categorization scheme for a corpus of interest opens up even more possibilities. Though a wide variety of supervised text analysis algorithms exist, their common goal is to learn an existing user-specified categorization scheme given only a small subset of the full corpus which has been pre-categorized, aiming to learn a categorization function which best generalizes to the larger universe of texts in the corpus. If the corpus contains one million documents, for example, the researcher could randomly sample 1000 documents from the larger corpus and manually label them using their codebook, give 800 of these documents to the algorithm

as training data, then evaluate the learned classification function using the remaining 200 documents (never shown to the learning algorithm) as test data⁷.

But how exactly should we evaluate the classifier? While an intuitive measure of “success” is the accuracy rate of its predicted label for the 200 test documents, intuition fails in this case. A very undesirable classifier, from the researcher’s perspective, could in fact still maximize this quantity. For example, if 90% of all the documents in the corpus are about computer science, an algorithm which just guessed the label “computer science” for every document it ever saw would do extremely well with respect to this measure (it would be correct 90% of the time), while failing to actually learn anything substantive about the categorization scheme. Thus, instead, computer scientists typically evaluate these learned functions using the F1 score, which incorporates both the classifier’s false-positive and false-negative rates, avoiding this type of degenerate case.

1.3 France 1789: The Birth of Ideology

Shifting back to our focus at the start of the post, we now consider the question: What do texts from revolutionary eras represent? And why are they of particular interest to political theorists? From a computational political theory perspective, these texts stand out as revolutionary “speech acts,” representing burgeoning expressions of ideologies put out into the world intentionally as attempts to change or even destroy the extant political order. For example, when Marx closed his Communist Manifesto with the phrase “Workers of the World, Unite!”, he was not attempting to state a true or false fact about the world, he was seeking to *change* it. In the nomenclature of speech act theory, Marx’s exhortation was an “illocutionary act”. With this theory of political speech acts, utterances (e.g., sentences or phrases) whose speakers aim to *do* something rather than simply describe something, we

⁷The 800/200 split is not an arbitrary choice: this 80/20 split is recommended by most practitioners in the absence of any information about how easily the categorization scheme can be learned from a certain number of documents. This is not a mathematically-justified “rule”, however—just a heuristic or “rule of thumb”. Researchers with simpler categorization schemes could instead set aside 10 percent or less of the documents as training data.

have a new tool with which to understand the role of ideology and rhetoric in the history of political thought, which we now use to try and unpack the first instance of a successful revolution built upon an ideologically-complete⁸, universal⁹ theory of a just society: the French Revolution.

So much of our contemporary understanding of politics comes from the French Revolution that we often don't even notice it. The idea of a political "left" and "right" wing, for example, comes from the tendency during the Revolution for radical republicans to sit on the left side of the National Assembly while the conservative monarchists sat on the right. This linear arrangement, however, is a rare example of order in an otherwise chaotic and violent revolution.

Beginning in a wave of vociferous intellectual energy as ordinary citizens started to challenge their most deeply-held socio-political convictions, the revolutionaries issued several constitutions over the span of a few years (in 1791, 1793, and 1795), each one more innovative and utopian than the last, each one reaching a little further toward achieving a just society. However, as the revolution approached its fifth year after the constitution of 1793, its ideological underpinnings became increasingly obscured by the shadow of violence, as fear of losing existing gains gave rise to the "Reign of Terror." In scenes presaging the worst atrocities of the 20th century, citizens resolved personal grudges by denouncing friends and neighbors as traitors—specifically, as enemies of the revolution—thus ensuring a quick

⁸Here we use "politically complete" in a sense similar to that of the "completeness" of a formal mathematical theory: a set of political axioms (for example, that legitimate power is derived from "the people") has this property if one can derive "answers" to all conceivable political problems a society may face (for example, who has the legitimate authority to declare war), at least in the eyes of its believers and practitioners. In this way, the anti-clerical egalitarian republicanism espoused by the ideologues of the Revolution qualifies, as does the "official" Soviet Communist doctrine which emerged under Stalin as well as the "Islamic Liberation Theology" of revolutionary Iran. The Cuban Revolution-based ideology of *foquismo* (sometimes termed "Guevarism"), however, is not politically-complete, since it only claims to answer the political problem of how to take power, not what to do once in power. Interestingly, Niccolo Machiavelli recognized the importance of this taking-power/using-power dichotomy and separately addressed his two major works to these topics (*The Prince* as a manual for taking power, and *Discourses on Livy* as a manual for governing once in power).

⁹[174] notes that all of the ideologies cited in the prior footnote were immediately, and violently, "exported" to other nations/regions outside of that in which the ideology had "officially" taken hold. Whether this perceived and acted-upon universality is a property of *all* politically-complete ideologies is an interesting question, but outside the scope of this work.

execution via guillotine [149].

The journalist Jacques Mallet du Pan summed up this violent turn in his 1793 adage: “like Saturn, the revolution devours its children”. An event of such world-historical importance has, of course, been analyzed and re-analyzed ad infinitum by historians over the years. But the incredible fact of the French Revolution from a historiographic perspective is that a sort of mass “public opinion survey” was taken the very year that it broke out: the *cahiers de doléances* or “grievance books.” These documents, from the moment of revolutionary ignition, offer monumental benefit to historians: they give first-hand accounts of the main reported political problems and aspirations of people from all different social strata of the country, providing an incredible insight into the theoretical and practical underpinnings of the coming transformation. They also allow us to combat the hereditary narrative handed down via the conservative accounts of theorists such as Edmund Burke, who described the achievements of the revolution as “all sorts of crimes jumbled together with all sorts of follies”, and the new revolutionary state as “a nation of gross, stupid, ferocious, and at the same time, poor and sordid barbarians, destitute of religion, honor, or manly pride” [67].

1.4 The *Cahiers*

In light of the economic crisis knocking at his door, King Louis XVI called for the Estates General to be convened, wherein he could ask the nobles to lend him the money he needed to pay off his state debts. However, before the council could be called, ordinances stated that a record of grievances to be discussed in the meeting must be collected from the people. At the time, France had an explicit and institutionalized hierarchy of social castes called “Estates”, with a small minority belonging to the Nobility and the Clergy and the vast majority, including the incipient bourgeoisie, belonging to a group creatively called the “Third Estate.” The Estates-General ordinance specifically required separate grievance books to be drafted by each of these three estates within each administrative region (called *bailliages* or *senechausses*) of the country, giving us not only a “snapshot” of France at the

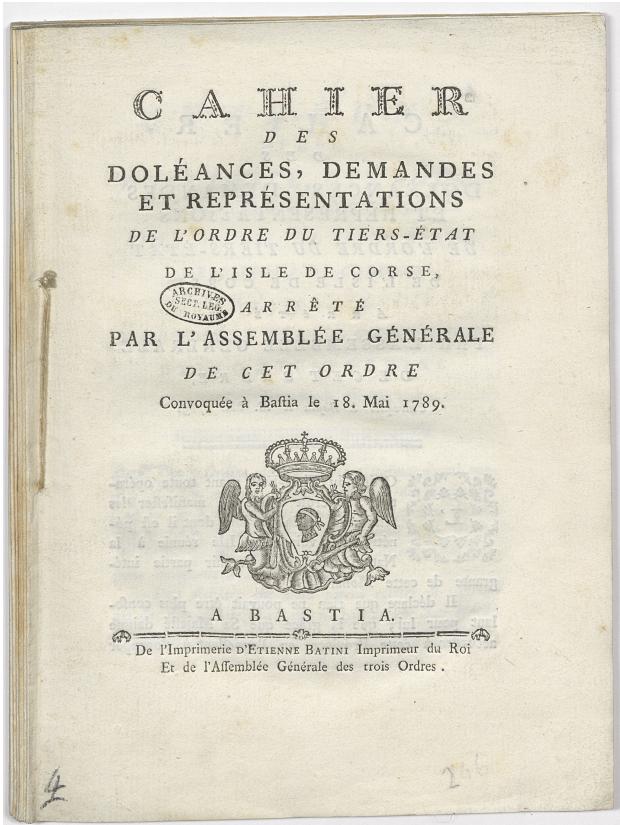


Figure 1.2: (Example of an actual published “grievance book”, this one containing the grievances of the Third Estate [*Tiers-Etat*] of Corsica [L’Isle de Corse])

cusp of revolution, but a snapshot explicitly surveying specific cross-sections of society, the ideal material for researchers in the social sciences¹⁰.

Thus the *cahiers de doléances* were born, as people all over the country proclaimed their anger, often ignoring the bureaucratically-crafted template in order to voice their own concerns more fully. The practice had not been repeated until recent months, when Emmanuel Macron resurrected the call for grievances, perhaps in an attempt to placate the *gilets jaunes* or “yellow vests” movement. Most of what we know about the *cahiers* has been curated at every turn in its three centuries of life, from Alfred Cobban back to Tocqueville and even to the original nouveau bourgeoisie delegates who, in selecting which matters to present to the king, likely emphasized matters relating more to their own class than to that of the peasant

¹⁰Even today, social science researchers almost never have access to such widely representative data: survey results are typically generated via weighted averaging of the raw response data, to simulate what the data would look like if respondents were truly representative of the population.

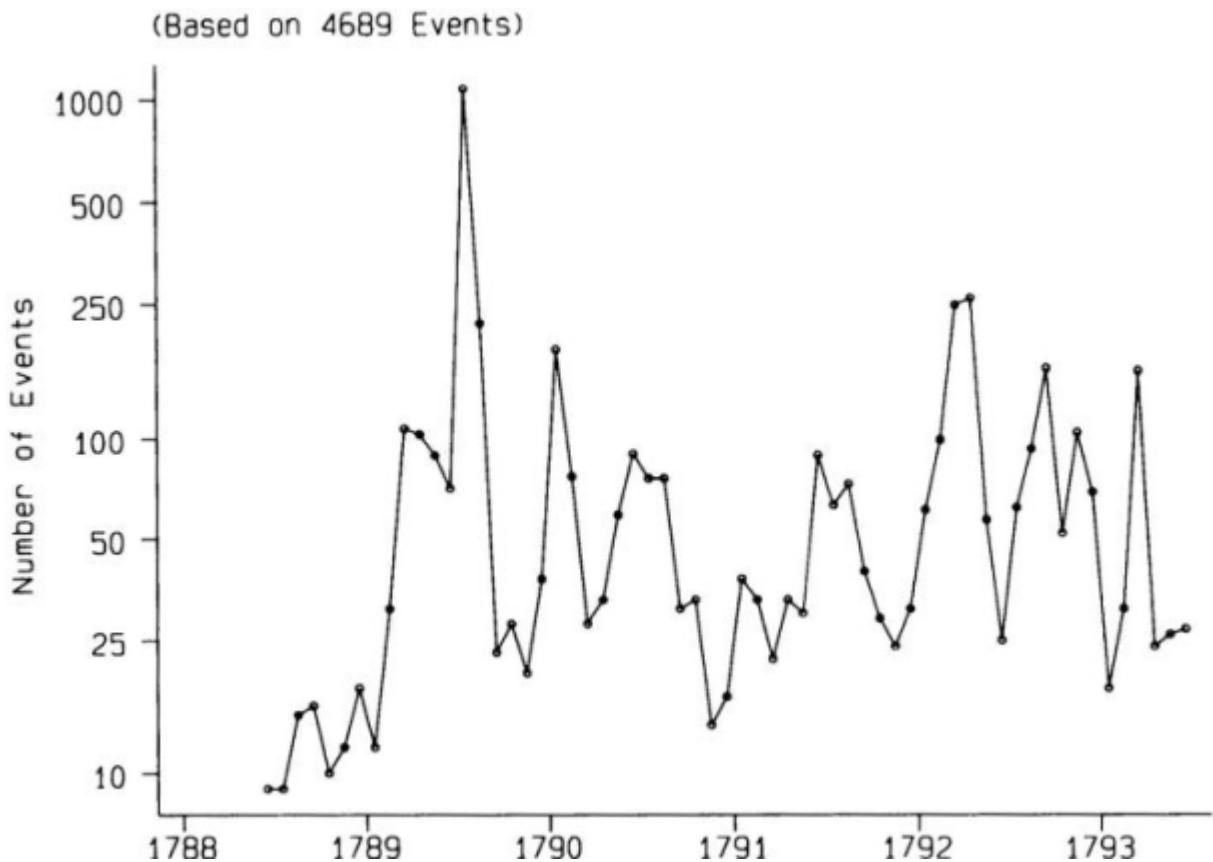


Figure 1.3: The frequency of peasant revolts over the course of the Revolution. The prominent spike in revolts during mid-1789 corresponds to the moment when it became clear that Louis XVI had essentially rejected all of the reforms proposed in the *cahiers*. (Figure from [270], p. 271)

class. The King, characteristically underestimating the severity of the situation, largely ignored the collected complaints, which only served to further provoke the already revolting populace to more drastic action (see Figure 1.3 below).

1.4.1 Competing Interpretations of the *Cahiers*

While various theories of the causal role of the *cahiers* with respect to the subsequent social upheaval have prevailed in different eras, researchers continue to uncover new texts and adopt new and usually contradictory historiographic methodologies, effectively debunking once “confirmed” explanations. Marxist interpretations are slowly falling away in light of postmodern suspicion of grand narratives, and today, after the so-called “end of history”, an

apathy regarding the revolution and further revolutionary activities hinders further research. Perhaps the first truly scholarly (rather than self-consciously rhetorical) attempt at providing “the” explanation of the Revolution came from Alexis de Tocqueville’s 1856 study, *The Ancien Régime and the French Revolution*. Though a member of the French intelligentsia from a noble background, and thus inevitably coming into the research with a set of preconceived notions received from his family and peers, Tocqueville aimed to conduct his study of the *cahiers* in a maximally objective and methodologically-sound manner, leading some to call him “the First Social Scientist” [131]. Nonetheless, he concluded that the documents depicted the nobility as the “revolutionary agent” pushing the revolution forward.

Though Tocqueville’s methodological rigor far exceeded that of his contemporaries, Robert Gannett’s *Tocqueville Unveiled* [153] casts doubt on the “representativeness” of Tocqueville’s sole source for his analysis, an abridged three-volume “synopsis” of the *cahiers* published amidst the chaos of late 1789 by political firebrand Louis-Marie Prudhomme (which, though masquerading as an informational “résumé”, was immediately recognized as a polemical, partisan screed and promptly banned by Parisian police). Gannett concludes that “by failing to properly assess the publisher’s covert political purposes in this hastily compiled *cahiers* collection, Tocqueville fell prey to the deliberate distortion injected within it” ([153], 203). This critique applies not only to Tocqueville’s but to all theories which have come and gone in the decades since, given that no single person could possibly read all 40-60,000 *cahiers* known to exist. Whether we want to believe Tocqueville’s theory, Georges Lefebvre’s Marxist theory (the dominant theory from around 1930 until 1960), George Cobban’s “Revisionist” theory (the dominant theory from around 1960 to the present), or any other, to truly know we need some consistent methodology which will treat each of the *cahiers* with equal weight.

Recognizing this issue of selection bias, quantitatively-minded historical sociologists Gilbert Shapiro and John Markoff embarked on a research endeavor which would occupy the greater part of both of their lives: the “Revolutionary Demands” project. With enough research assistants, they figured, and a categorical coding system which successfully struck a bal-

ance between specificity and interpretability, they could manually tag every single grievance within every single *cahier* based on (a) the topic, i.e., what particular aspect of the regime the grievance was addressing, and (b) the proposed change, e.g., whether the grievance called for reformation, abolition, or expansion of an *ancien régime* institution.

Topic models, as mentioned above, are a class of algorithms which, through trying to group the semantic ideas in a text into distinct but internally cohesive topics, can identify the topics discussed across an entire corpus and measure their relative frequency of discussion. The inner workings of the algorithm rest upon a simplified story (a “data-generating process” or DGP) of the process of writing a sentence or paragraph: someone sits down to write about a particular topic, but they immediately forget all words except those relating to their chosen topic. So the author brainstorms, writing topic-relevant keywords, perhaps repeatedly, down as they come into their mind. Topic modeling can take the document the writer has produced and reverse engineer it such that it can determine the original constitutive ideas of the paragraph given only the groupings of words it has found.

Results and Discussion

Topic models, then, give us a way to organize and to start to understand what would otherwise be an unmanageable mountain of texts. In the case of the cahiers de doleances, we already have an example of what humans would be able to discover given decades of painstaking labor, a blessing for those of us trying to probe the possibilities for using computers to obviate the tedious parts of research. Thus, just as Shapiro and Markoff “transformed” interpretations of the origins of the French Revolution from the realm of intellectual speculation to that of empirical testing and evaluation of hypotheses, we focus on two axes across which we can plot the various theories.

The first axis, social class, refers to the position of the grievance-writers within the *ancien régime*. Relative to the institutional positions and national resources available to a given citizen of France, this axis is operationalized by a variable corresponding to whether

the grievance is from a member of the Nobility, the Clergy, or the Third Estate¹¹. The second axis, however, is where the topic model really shines: social class is interacted with automatically-discovered topic, so that we can decompose a given class’s grievances into, for example, grievances regarding the regime’s tax structures and legal systems; those regarding the balance between royal, parliamentary, and clerical power; and those focused on more general principles of justice and human rights.

As mentioned earlier, however, these topic models are unsupervised—the statistical model chooses the topics for us, which can be a blessing or a curse depending upon the ratio of “signal” to “noise” in the corpus it is trained on. While there is still controversy over which properties of texts constitute “signal” and which constitute “noise” (see, e.g., [360] for a recent rethinking of this dichotomy, or [111] for an empirical illustration of how different assumptions can drastically affect findings), we opted to perform a series of linguistic pre-processing steps aimed at maximizing the semantically-relevant content in each document.

First, we removed function words (“le”, “une”, “et”, and so on, also called “stopwords”). In a grievance like “Abolissez la taxe foncière!” (“Abolish the land tax!”) the presence of “le” conveys no information about the topical focus of the grievance. Then, we mapped various pluralizations and conjugations of a word to a single “stem” word and transformed all remaining words to lowercase. Finally, we trained a phraser to detect and tag meaningful multi-word phrases like “droit de contrôle” or “tiers état” before running these steps, to ensure they would be treated as atomic linguistic units when appearing in the corpus, since, for example, “impôt foncier” (“land tax”) has a meaning distinct from that of either “impôt” or “foncier” appearing in isolation.

The actual results generated by the model can be explored using our topic visualization

¹¹While we were able to obtain the full text of about 95% of all Clergy cahiers—those submitted on behalf of church parishes across the country—these are vastly more numerous and less well-preserved than the *cahiers* of the Nobility and the Third Estate. The *cahiers* of the Clergy number in the tens of thousands, with several thousand almost certainly lost to time, while all but a few Nobility and Third Estate *cahiers* are accounted for and accessible via archives throughout France. Thus, for the sake of demonstration and data quality, we restrict the analysis here to the *cahiers* of the Nobility and Third Estate (our [inevitably] statistically-skewed collection of Clergy *cahiers* is available upon request—for details on the existence, non-existence, and preservation status of these documents see [210], [125], and [365], chs. 8–9).

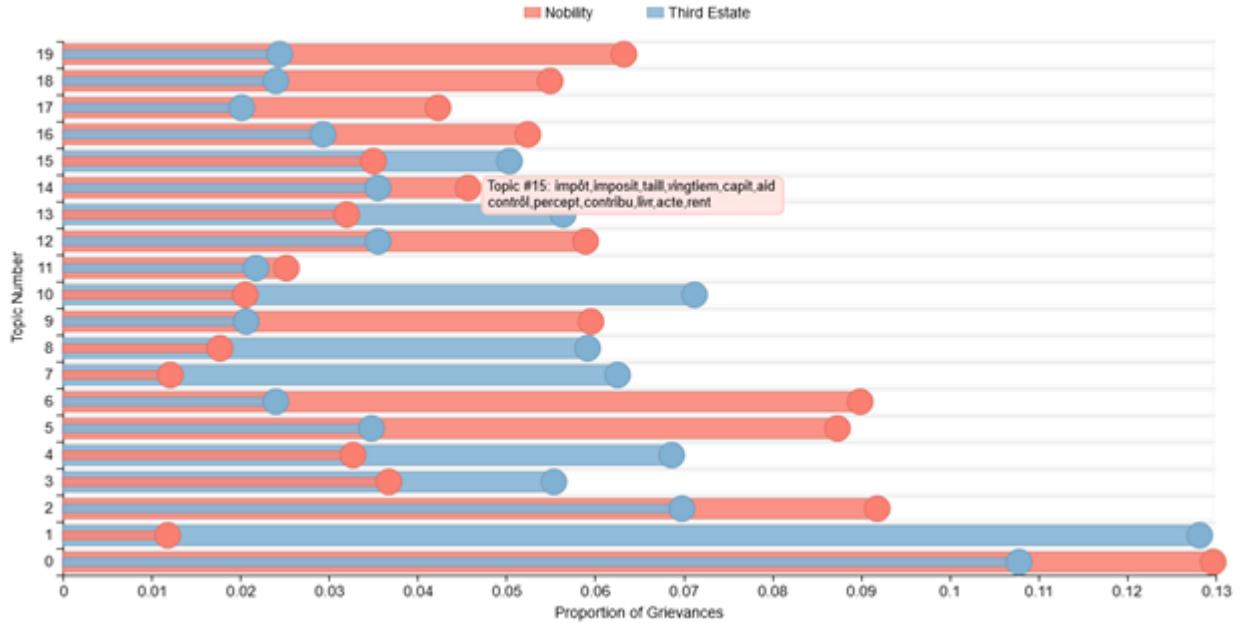


Figure 1.4: A screenshot from the interactive visualizer, available at <https://textlab.app/cahiers>

app at <https://textlab.app/cahiers>). Though there are several striking features, perhaps the starker result visible in the graph is the massively greater emphasis on seigneurial institutions (Topic 1)—the institutional embodiments of the feudal system itself—among Third Estate cahiers relative to the cahiers of the Nobility. While LDA topics are not mutually-exclusive, so that one must be careful not to assume a clean one-to-one mapping between the algorithmically-discovered topics and the latent topics established and discussed by scholars of the French Revolution, the gap in Topic 1 emphasis between the two estates is statistically significant, as can be seen in Figure 2 below, which provides bootstrapped confidence intervals for the 40 estimated topic proportions.

[Non-interactive version of the topic emphasis graph here]

Conversely, the topic with the highest Nobility-emphasis to Third Estate-emphasis ratio is Topic 6, which straightforwardly represents grievances discussing the Noble *députés* (deputies) elected to represent the Nobility at the Estates-General and, in particular, the procedures by which voting would be conducted. While scholars continue to argue about the various rationales, the particulars of the legitimating ideologies and argumentative strategies

employed to this end, proffered by the Nobility when demanding that the Estates-General retain its highly-disproportionate “vote by estate” rule, there is near consensus that “vote by head” vs. “vote by estate” was probably the most salient and mobilizing issue among politically-engaged French citizens during the nationwide debates from January to May 1789.

Constituting less than two percent of the Kingdom’s citizens, the Nobles feared that a change to the “vote by head” rule would sound the death knell for their existence as a privileged class, much as White Rhodesians in 1980, White South Africans in 1994, or Jewish Israelis today have recognized the mortal threat that democratic representation would present to their continued dominance. While this result is not surprising, it does buoy our confidence in the model’s veracity as a reflection of the major concerns of each estate.

A potentially more interesting result comes if we contrast the extremely high (and statistically significant) Nobility-to-Third-Estate emphasis ratio of Topic 6, which centers around voting procedures, with the extremely low (and even more statistically significant) ratio for Topic 1, focusing on seigneurial institutions. While the Nobility’s energy went towards fighting for what modern theorists of democracy would call the “procedural conception” of democracy, where democracy is justified in broadly deontological terms as having the ability to bind people via mutually-established rules/institutions which substantively incorporate their voices, the Third Estate mobilized around an “instrumental” conception. Their contrasting democratic-theoretical framework instead justified democracy e consequentially in terms of the ends that it can be put towards—in this case, the abolition or at least significant attenuation of feudal powers and privileges.

Here we have only examined two of the 20 topics learned by the topic model, yet already we have some evidence or at least some preliminary hypotheses we can bring to bear in evaluating the theories cited above, regarding the role(s) of different estates and social classes in precipitating the major events of the early Revolution. It seems reasonable to conclude that the Nobility found themselves on the defensive, trying to justify a continuation of the status quo on procedural grounds, or, perhaps more accurately, on the grounds of defending

tradition, when drafting their *cahiers*. The Third Estate, by contrast, devoted a tremendous proportion of their grievances towards developing a more recognizably “modern” rights-based argument, highlighting the onerous infringements upon their dignity and autonomy which the institutions of the feudal regime enabled and encouraged.

In consequence, claims like Tocqueville’s that the Nobility was essentially “as radical as” the Third Estate fall flat. Instead, our findings favor the more Marxist-like arguments of Lefebvre and Cobban, positing the Revolution as essentially the result of a collision of mutually-opposed class interests. Delegates of the Nobility and the Third Estate held more-or-less irreconcilable views regarding who should steer the ship of state and how they should steer it. While this vindicates the 20th-century scholars’ “break” from the Tocqueville-dominated “consensus” interpretation of the 19th century, it still leaves us with the central interpretive dispute among these 20th-century scholars, that between Lefebvre’s “orthodox” Marxist theory and Cobban’s “revisionist” theory focusing on the role of the peasantry. To what degree were peasants able to “steer” the direction of the revolution, via revolts and other forms of collective mobilization, towards outcomes which addressed their grievances, especially in comparison to the Parisian sans-culottes? How different were their aims in the first place? Until we incorporate the Parish (Clergy) *cahiers* as a third data source for our analysis, we are unable to adjudicate between these two theories and unable to answer these questions. Though it’s outside the scope of this post, the task of constructing a convincingly representative sample of the Parish *cahiers* to enable such a study should be a central concern for quantitatively-minded historical researchers. Combining 21st-century probabilistic programming frameworks like Stan or Edward with some of the aforementioned text-as-data algorithms, one could develop a far more convincing set of joint topic-emphasis estimates for all three estates than those computed by Shapiro and Markoff, who use a somewhat opaque and ad hoc clustering method to try and correct for sampling biases¹².

¹²Shapiro and Markoff’s procedure also, as far as we can tell, does not incorporate any explicit missing-data modeling or imputation, despite the authors’ meticulous work researching and describing the “missingness” properties of the Parish *cahiers* (in chapters 7-8 of [365] and in [125]). Although missing-data modeling and imputation have historically been somewhat ad hoc and heuristic-driven, Bayesian programming frameworks

1.5 Conclusion

The French Revolution is only one example among hundreds of people taking action in the realm of politics and fundamentally transforming the political arrangements—*institutions, hierarchies, norms*—with which their day-to-day lives are imbricated and co-constitutive. For the sake of actually starting to understand revolutions and political change in a meaningful way, it’s imperative that we employ methodologies which “translate” across revolutions, instead of infinitely fine-tuning (in computer science parlance, “overfitting”) to a particular case.

The central point, in our view, is not so much to understand the cahiers as such but instead to develop systems allowing historical/social-scientific researchers to “stand on the shoulders of [algorithmic] giants,” exploring the transformations of the political-historic landscape not as hikers but as pilots, gaining a more complete view of the geography. From this vantage point, then, those who wish to make the future better than the past—organizers, advocates for social change—will be able to see with greater clarity the lay of the land, the obstacles in their way and how historical actors have navigated them with greater or lesser success. Social movements could thus be empowered to find new answers to perennial questions of organizational efficacy and decision-making, augmenting accumulated institutional memory and folk wisdom with the results of statistically-principled analyses. Otherwise, these lessons of history will remain the dominion of those select few with the time and resources necessary to perform decades-long intensive studies like those of Shapiro and Markoff.

like Stan and Edward provide a statistically-principled missing-data model and imputation procedure “automatically”: since all data is modeled explicitly (Bayesian models require explicit specification of probability distributions for both the data points $X = \{x_1, x_2, \dots, x_N\}$ and the model parameters $\theta = \{\theta_1, \theta_2, \dots, \theta_M\}$, since values for the latter are estimated using the model’s posterior distribution after the Bayesian update equation has been applied, i.e., by computing $\theta^* = \max_{\theta} P\theta|X_{obs}$, where X_{obs} is the observed subset of X), missing data X_m can be imputed by running the model “backwards”, i.e., by subsequently computing $X_m^* = \max_{X_m} P X_m|X_{obs}; \theta$ once satisfactory estimates for the model parameters θ have been obtained.

Chapter 1: Appendix

1.A Probabilistic Graphical Models and Topic Models

When trying to understand a complex phenomenon with lots of moving parts interacting with one another, a good way to start is often to break it down into its constituent elements and then specify how these elements work together to produce the phenomenon. A “Probabilistic Graphical Model” or PGM is a statistical tool which operationalizes this intuitive idea. A PGM is a collection of nodes (drawn as circles) representing variables and edges (drawn as arrows) representing relationships of influence between nodes, codified as “Conditional Probability Tables”. So, if we wanted to model the relationship between weather and a person’s choice of whether to go out and party or stay in and watch a movie on a given Saturday evening, we could make:

1. A variable w which can take on values in {Sunny, Rainy}
2. A variable a which can take on values in {Go Out, Stay In}, and
3. An edge e from w to a which encodes the intuition that one is more likely to go out if it’s sunny than if it’s rainy via the probability distribution $P\text{Go Out} \mid \text{Sunny} = 0.75$, $P\text{Stay In} \mid \text{Sunny} = 0.25$, $P\text{Go Out} \mid \text{Rainy} = 0.25$, and $P\text{Stay In} \mid \text{Rainy} = 0.75$.

The resulting PGM, in graphical form¹³, is presented in Figure 1.A.2, where the Conditional Probability Table describing the edge from the w node to the a node is given in Table 1.A.1.

¹³The “Graphical” in Probabilistic Graphical Model is not used in the same sense as the “graphical” we’re used to from vernacular English. Capital-G Graphical denotes that the Probabilistic Model is represented as a Graph, a well-defined mathematical object consisting of nodes and edges, which does not have to be represented graphically (though it could be, like in our example here with circles and arrows). In fact, when a computer program is estimating a PGM, it is by definition not in a graphical form—it’s in the form of 0s and 1s, stored in the computer’s memory.

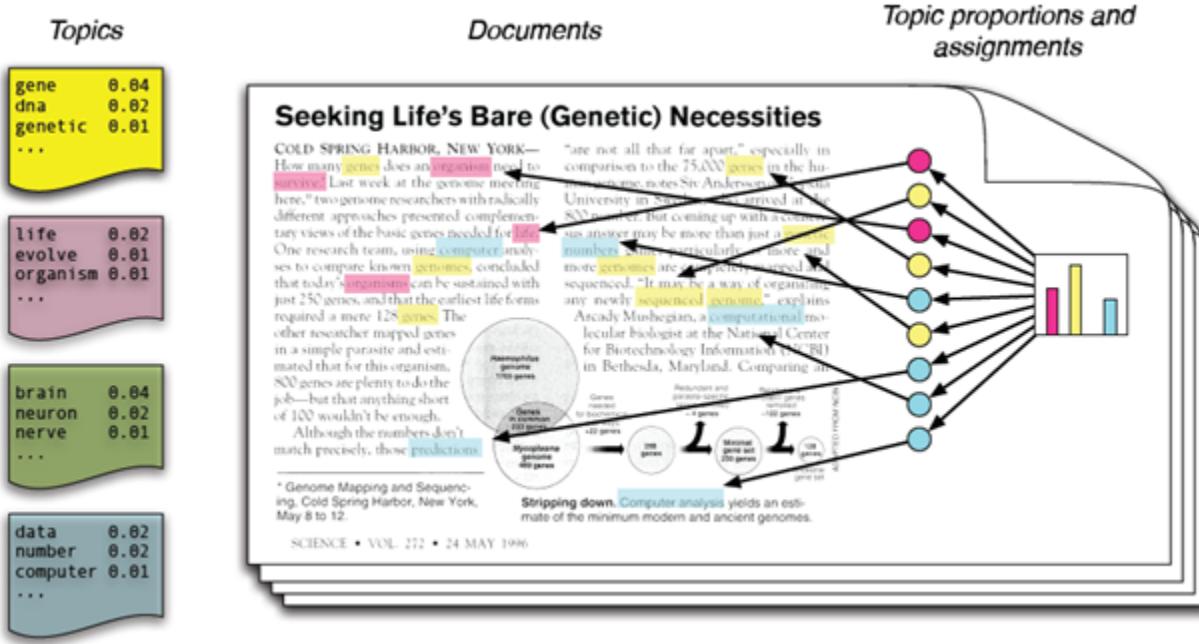


Figure 1.A.1: From [51], p. 3



Figure 1.A.2: A basic PGM, representing the relationship between w , the weather, and a , the subsequent action of a person deciding whether to go out or stay in for the night.

	Go Out	Stay In
Sunny	0.75	0.25
Rainy	0.25	0.75

Table 1.A.1: The Conditional Probability Table for the PGM shown in Figure 1.A.2.

PGMs can help us make inferences about the world in the face of incomplete information, which is the situation in nearly every real-world problem. The key tool here is the separation of nodes into two categories: *observed* (represented graphically as a shaded node) and *latent* (represented graphically as an unshaded node). Thus we can now use our model as a weather-inference machine: if we observe that the person we're modeling is out at a party with us, what can we infer from this information about the weather outside? We can draw this situation as a PGM with shaded and unshaded nodes, as in Figure 1.A.3, and then use Bayes' Rule to perform calculations over the network, to see how the observed information about the person at the party "flows" back into the node representing the weather.



Figure 1.A.3: A PGM representing the same situation as in Figure 1.A.2, except that the node for variable a is now shaded, indicating a situation where we have observed the person's action ($a = \text{Go Out}$) but still only have a probability distribution over the weather w .

Keeping in mind that Bayes' Rule tells us, for any two events A and B , how to use information about $PB|A$ to obtain information about $PA|B$:

$$PA|B = \frac{PB|APA}{PB},$$

We can now apply this rule to obtain our new probability distribution over the weather, taking into account the new information that the person has chosen to go out:

$$\begin{aligned} Pw = \text{Sunny} | a = \text{Go Out} &= \frac{Pa = \text{Go Out} | w = \text{Sunny}}{Pa = \text{Go Out}} \\ &= \frac{Pa = \text{Go Out} | w = \text{Sunny}}{Pa = \text{Go Out} | w = \text{Sunny} \quad Pa = \text{Go Out} | w = \text{Rainy}} \end{aligned}$$

And now we simply plug in the information we already have from our conditional probability table to obtain our new (conditional) probability of interest:

$$Pw = \text{Sunny} | a = \text{Go Out} = \frac{0.8}{0.8 \quad 0.2} = \frac{0.4}{0.4 \quad 0.05} = \frac{0.4}{0.45} \approx 0.89.$$

We have learned something interesting: now that we've observed the person out at a party, the probability that it is sunny out jumps from 0.5 (called the “prior” estimate of w , i.e., our best guess without any other relevant information) to 0.89 (called the “posterior” estimate of w , i.e., our best guess after incorporating relevant information).

Chapter 2: The Geometry of Political Discourse

The Translation and Diffusion of Marxism from the Communist Manifesto to the Cold War

Abstract

We use tools from computational linguistics to assess the trajectory of Marx's thought over his life and his impact on the 19th century socialist movement. We combine a new, comprehensive corpus of Marx's complete works from 1835 to 1883 ($N > 1200$) with a large sample ($N = 250$) of 18th and 19th century texts Marx engaged with, and measure conceptual distance between Marx's works and various schools of 19th-century thought (political economists, socialists, and Hegelian philosophers) via contextual sentence embeddings. Two key breaks emerge in Marx's own writings: (a) Marx's writing becomes less Hegelian as he is exposed to Paris' brand of working-class-oriented socialism between 1843 and 1845, then (b) becomes more focused on issues of political economy over the remainder of his life in London, from 1849 onwards. We then assess Marx's influence on the broader socialist discourse of the 19th century via a corpus of contemporary socialist texts ($N = 200$), and find that Marx's semantic trajectory is mirrored, with a lag, by changes in the semantic trajectory of European socialist thought. This discourse shifts away from moralistic and Hegelian themes and towards a more positivistic political-economic vocabulary, especially after Marx's rise to public prominence in the wake of the 1871 Paris Commune. Marx's unique blend of German philosophy, French socialism, and British political economy defeated would-be competitors in the 19th century, establishing Marxism as the default language of European socialism by the time of Engels' death in 1895.

2.1 Introduction

2.1.1 Overview

How important were the preexisting ideas and concepts of German philosophy, French socialism, and British political economy to the formation of Karl Marx’s thought over the course of the 1840s? And, once he had articulated his resulting critique of capitalism, how was he able to cement its concepts and vocabulary as the hegemonic discursive frame utilized by socialist movements across Europe, as opposed to those propounded by other popular socialist writers of the era like Pierre-Joseph Proudhon, Louis Blanc, Ferdinand Lassalle, and Mikhail Bakunin? What was he “doing” when he intervened in the socialist discourse of the time via public speech acts—books, articles, speeches, and so on—and how successful was he in this endeavor? We operationalize these questions in quantitative terms, as empirically testable hypotheses, and then leverage recent advances in neural network-based text analysis methods to attempt answers to them in an empirical rather than purely speculative or interpretive mode.

In the remainder of the Introduction, we start in Section 2.1.2 with an overview of the Cambridge School approach to the study of historical political thought, discussing how our methods herein serve to instantiate some of the historiographic insights developed by this strand of research. We then present a high-level outline of the development of Marx’s thought in Section 2.1.3, omitting details which will be explored in-depth in Parts I and II of the work, and end the Introduction with a similarly broad introduction to the computational methods employed in the remainder of the work, in Section 2.1.4.

In Part I we carry out a computational decomposition of the texts thought to have influenced Marx’s thought, evaluating their relative importance to its genesis and evolution from his 1836 poetry to his work on the three volumes of *Capital* which occupied him from the late 1850s until his death in 1883. We propose a method for identifying the contours of a “discursive field”, given a set of representative texts from this field, by identifying clusters

of terms which are most unique to this particular discourse relative to a larger semantic embedding space (in this case, a space capturing the language of 19th-century literature writ large). We then use this method to operationalize the notion of how “Hegelian”, “socialist”, or “political-economic” an author’s writings are, and find (lending credence to what is commonly assumed or asserted in studies of nineteenth-century radical political thought) that (a) Marx’s writing becomes less “Hegelian” and more “socialist” as he is exposed to Paris’ brand of working-class-oriented socialism between 1843 and 1845, and then (b) becomes less “socialist” and more focused on issues of political economy over the remainder of his life in London, from 1849 onwards.

In Part II we turn from an analysis of the earlier influences *on* Marx to an analysis of Marx’s subsequent influence on the political discourse of his own time – in particular, his influence on the rhetoric and practice of the European socialist movement from the 1850s onward. We ask: what did he *do* with the concepts bequeathed to him by his influences, those analyzed in Part I? How did he hope to “steer” socialist discourse via his interventions, and how successful was he in these various attempts? We again construct an embedding space, this time “tuned” to represent authorial position-taking within European socialist polemics of the time, and argue that the movement of Marx’s discourse relative to this general socialist discourse strongly supports the perspective that (a) his aim was to “pull” socialists away from moralistic discourse and towards a more positivistic political-economic discourse, and that (b) he was successful in this endeavor, as evidenced by the similarity between the trajectory of Marx’s thought and the subsequent trajectory of general socialist thought within this ideological (moralistic vs. political-economic) space.

2.1.2 The Historiography of Political Thought

What do political thinkers *do* with their words when they perform a political speech act – a book, a pamphlet, a speech, and so on? Since the 1960s, “Cambridge School” historians of political thought like Quentin Skinner and J. G. A. Pocock have developed

novel understandings of several key historical thinkers and texts, by employing a linguistic-philosophical and context-sensitive approach to this question ([371], [325]). Drawing on the philosophy of J. L. Austin and the late Wittgenstein, and the structuralism of Ferdinand de Saussure, these scholars have shifted our historiographic focus away from the notion of “perennial questions” in political thought [44], and towards a conception of historical texts as *interventions* into a particular, localized discourse.

Roughly speaking, an earlier school of historians of political thought, associated with Leo Strauss, viewed the “great minds” of history – e.g., Plato and Aristotle, Machiavelli and Hobbes, Kant and Hegel – as engaged in a collective conversation on the “eternal questions” of philosophy (in particular, the question of what constitutes a good life and a good society). Importantly, in Strauss’ view, it is only this echelon of great minds who qualify as true political philosophers, since their philosophical work is “animated by a moral impulse, the love of truth”, not the desire to win an argument or persuade the public to adopt their preferences [384]. In fact, under this conception, political philosophers must divorce themselves entirely from local or day-to-day political concerns, as “it is only when the Here and Now ceases to be the center of reference that a philosophic or scientific approach to politics can emerge”.

A Cambridge School approach, on the other hand, asserts that no such separation from the day-to-day political issues of a thinker’s time is possible. The claim is stated in its most direct form in Skinner’s “Meaning and Understanding in the History of Ideas”:

There simply are no perennial problems in philosophy: there are only individual answers to individual questions, and as many different questions as there are questioners. There is in consequence simply no hope of seeking the point of studying the history of ideas in the attempt to learn directly from the classic authors by focusing on their attempted answers to supposedly timeless questions.

For instance, to take an obvious example, the Cambridge School would view Machiavelli’s *The Prince* not as uninterested philosophical reflections on just rule and the structure of a just society, but instead as aiming to *do* something, to accomplish some desired end – in

this case, to convince the new Medici regime to employ Machiavelli as a political advisor, after he had lost his patronage due to the fall of the previous regime. Or, to take a slightly more controversial example¹, Ellen Meiksins Wood's *Citizens to Lords* challenges Strauss' conception of Plato's *Republic* as an uninterested, non-partisan tract on perennial questions of the good society, and instead argues that Plato's aim was to justify the continuation of the dictatorial rule of the 40, which had just come to power and restored stability in Athens, terminating Plato's enslavement.

2.1.3 The Formation of Marx's Political and Economic Thought

The key elements of Karl Marx's critique of capitalism was forged over the course of a decade – the 1840s – in which a whirlwind of revolutionary upheavals and governmental expulsions swept him from Germany to France, Belgium, and England, where he settled after the abortive revolutions of 1848. Historians thus commonly agree that his thought represents a mixture of German philosophy, French socialism, and British political economy, but disagreements begin to arise when the details of this mixture are interrogated: What particular concepts did he absorb from each, and to what extent did he modify or transform them? Did the influence occur gradually, through e.g. his day-to-day interactions with workers in Paris? Or can we pinpoint particular moments when his reading of certain texts immediately affected his thought?

In this paper we show how one can utilize a set of techniques from Natural Language Processing (NLP) to decompose an author's writings (and the writings of their influences and interlocutors) into semantic and syntactic components, thus *embedding* them in a semantic space and a syntactic space, spaces within which these texts occupy particular points, in the geometric sense. The semantic-analysis algorithm is designed to map texts into points in the semantic space such that texts discussing similar topics, concepts, terms, etc. will be

¹“Controversial” in the sense that practitioners of the Cambridge School approach, along with Wood herself, view the approach of this work as differing in some respects from the “orthodox” Cambridge School approach established in the works of e.g. Skinner, Pocock, and John Dunn.

close to one another. The syntactic-analysis algorithm, on the other hand, is designed to capture a text’s rhetorical mode of presentation – for example, terseness or complexity of word choices – and map rhetorically-similar texts close together.

Thus, by running these algorithms on two or more texts and analyzing how close or distant their semantic and syntactic embeddings are, or how subsets of the texts cluster or fail to cluster within the space, we can begin to trace out an author’s evolution in terms of their trajectory through this space over time: for example, a key hypothesis derived from the literature on the evolution of Marx’s thought would be that texts from the “early Marx” period (roughly from his first writings to the “Economic and Philosophic Manuscripts of 1844”) would remain within the vicinity of a cluster of Hegelian texts – whether Hegel’s own texts or the texts Young Hegelians like Bruno Bauer – but afterwards would rapidly move away from the Hegelian discourse and rhetoric cluster and towards clusters formed by French socialist republicans (Louis Blanc, Pierre-Joseph Proudhon, Charles Fourier, Sismondi) and, eventually, British political economists (Adam Smith, David Ricardo, J. R. McCulloch).

With these measures of semantic and stylistic similarity in place, then, we can track the influence exerted by various authors and texts upon Marx over time (Part I) and the subsequent influence of Marx upon 19th-century European socialist discourse. To this end, another key contribution of this work is the release of a series of datasets, the *Digital Marxism Collection*, through which Marx’s reading and note-taking, writing, and referencing of other texts can (in almost all cases) be traced down to the exact day. The three main datasets containing this information are as follows:

- The *Digital Marx-Engels Register* (hereafter shortened as *Digital Register*), containing a record for every known piece of writing by the two authors ($N > 1000$), linked to the full text of the writing along with a substantial set of metadata: dates of writing and first publication (cross-referenced with the *Digital Chronicle*—see below), original language, listing of known translations, the location of the work within *MEGA*¹, *MEGA*², *MEW*, and *MECW*, and all known details of the relative contributions of

Marx and Engels in the case of jointly-authored works. This dataset extends the original *Marx-Engels Register* [120], which itself built upon and extended a large collection of previously-published bibliographies². The key contribution of this dataset, apart from the digitization and relational-database-structuring of the out-of-print 1985 *Register*, is the inclusion of references to the volumes and pages of the “New MEGA”, MEGA². While only 16 volumes had been published by mid-1984, when the original *Register* was finalized³, an additional 56 volumes have been published in the subsequent years, bringing the total to 72 out of a planned 122. Thus, the *Digital Register* brings the original references up-to-date with these subsequently-published volumes.

- The *Digital Marx-Engels Notebooks* (hereafter shortened as *Digital Notebooks*), containing a record for every entry—i.e., every referenced work—across Marx’s 168 extant reading notebooks⁴, along with (a) metadata like the number of pages and number of excerpts taken from each referenced work, and (b) links to a supplementary dataset containing metadata about the referenced works, along with the full text of the works (when available).
- The *Digital Marx-Engels Chronicle* (hereafter shortened to *Digital Chronicle*), containing a record for each known “event” in Marx’s and Engels’ lives⁵, cross-referenced with entries in the *Digital Register* and *Notebook Collection*.
- The *Digital Marx-Engels Correspondence* (hereafter shortened to *Digital Correspondence*), containing a record for each known letter sent by or to Marx and/or Engels, along with (a) metadata like date sent and date of receipt, (b) full text of the letter

²The most comprehensive of these being Maximilien Rubel’s 1960 *Bibliographie des oeuvres de Karl Marx* [350].

³These published volumes being: I/1, I/10, I/22, I/24, II/1, II/2, II/3, II/5, III/1, III/2, III/3, III/4, IV/1, IV/2, IV/6, and IV/7. See [120] pp. 206–207 for information on the progress of MEGA² publication at the time of compilation.

⁴A listing of the contents of these notebooks, along with facsimiles of each hand-written page, are available via the IISG website at <https://search.iisg.amsterdam/Record/ARCH00860/ArchiveContentList#A072e534c62>

⁵See [120] for what types of events qualify for inclusion.

(where available), and (c) links to entries in the *Digital Glossary* (see below) for each author/recipient.

- The *Digital Marx-Engels Glossary* (hereafter shortened to *Digital Glossary*), containing a record for every “entity”—people, places, organizations, publications, and geographic/geopolitical entities⁶—referenced across the *Digital Chronicle* and *Digital Correspondence*, along with metadata like links to the Wikidata database id for each entry (which, in many cases, is subsequently linked to the same entity in hundreds of additional databases—see, e.g., the entry for Karl Marx here: <https://www.wikidata.org/wiki/Q9061>), where available. As with the *Digital Chronicle* and *Digital Register*, this dataset builds upon and updates the original 1985 *Glossary* with references to the subsequently-published volumes of *MEGA*² and the newly-referenced entities therein.

2.1.4 Computational Methods: Contextual Sentence Embeddings

The key computational tool used throughout, to map texts into geometric spaces based on their semantic content, is a contextual sentence embedding algorithm. In fact, there are a wide range of embedding algorithms for transforming various linguistic entities (e.g., words, phrases, or nodes within a dependency parse tree) into points within a high-dimensional geometric space. Although our unit of analysis herein is a *document* (e.g., a text, pamphlet, or letter), these documents are in general too long for a single embedding algorithm to handle – state-of-the-art embedding algorithms like BERT have an upper limit of 512 tokens that can be jointly encoded into a single high-dimensional vector. Thus we instead compute a separate embedding for each *sentence* within a text using SentenceTransformers [331], then combine these sentence vectors into a single document vector via mean pooling. As a robustness check, however, we computed document-level embeddings via an experimental document embedding method called Longformer, described in [40], and obtained qualitatively similar results (see Appendix 2.C.1).

⁶See Appendix 2.D for details regarding what types of entities qualify for inclusion.

Turning to the issue of *how* exactly the semantic information in a text is given a geometric interpretation: at the most basic level, sentence embedding algorithms take every word appearing in a corpus and represent them as points within a geometric space, such that words which are used in similar contexts⁷ will be placed closer together in the space than sentences which use dissimilar words and/or dissimilar contexts around these words. Since the publication of the first widely-used word embedding algorithm, `word2vec` ([285]), in 2012, researchers in the social sciences have used these algorithms to incorporate information from textual corpora into studies which previously were restricted to using numeric or qualitative data. Recent studies have found, for example, that contextual embeddings are able to capture salient properties of social class [230], the ideology of political manifestos [335], and the influence of economics on legal decisions [22]. Of these three, the latter comes closest to our work, in attempting to study the linguistic properties captured by word embeddings using econometric methods for estimation of time-series effects. A related literature, which predates the creation of word embedding algorithms, aims to quantitatively capture the existence, direction, and magnitude of ideological influence directly. [30], for example, studies ideological influence across a time series of French Revolutionary debate transcripts by introducing “transience” and “novelty” metrics, which quantify how much the content of a given text is adopted by future texts, and how much it differs from the content of earlier texts, respectively. Unlike the previously-mentioned studies, however, this literature has yet to incorporate newer embedding methods, instead opting for a set of older more established text-analysis methods known as Topic Models⁸. Although topic modelling algorithms are

⁷Although “context” can be operationalized in different ways based on what information a user hopes to extract, in our case the context of a word w in a sentence S is defined to be the set of n words appearing before and after w in the sentence. For example, if S is “The sleepy grey cat likes salmon.”, and w is “cat”, then the context of w with $n = 2$ would be the set {sleepy, grey, likes, salmon}.

⁸Topic modelling algorithms such as Latent Dirichlet Allocation (LDA), the most widely-used method, utilize word collocation information to identify a set of K semantic topics within a text corpus, where each topic is itself a probability distribution over words. When given a corpus of unlabeled New York Times articles, for example, these algorithms are able to identify a topic for which “stock”, “market”, and “percent” are the three highest-probability terms, another where “restaurant”, “sauce”, “menu” have highest probability, and so on [52]. Thus, despite not having any information on what sections the articles were pulled from, the algorithm is able to group articles from the same section together with near-perfect accuracy.

an effective tool for summarizing a corpus at a high level, they are ill-suited for the task of tracing out the trajectory of *particular* terms or concepts over time. Since we are interested in how Marx was able to cement his particular set of terms as *the* vocabulary for later socialist discourse, embeddings are uniquely effective in allowing us to look at exactly which contexts a given term was employed in by Marx, and how this differs from the term’s typical contexts before and after Marx’s intervention. In other words, while topic-modelling-based approaches can tell us *that* Marx’s writings influenced future socialist discourse, embedding-based approaches can tell us *how* this influence operated – which terms or concepts Marx utilized in particularly novel ways, and which of these illocutionary moves were and were not effective in terms of influencing subsequent socialist thought.

Studies across both of these literatures, moreover, have yet to adopt the contextual *sentence* embeddings we use herein, which utilize a more recently-developed embedding method from 2019 known as BERT [112]. BERT constructs numeric representations for both words *and* the contexts in which they appear, rather than associating each word with a single embedding vector. This means that, e.g., the word “bank” within the sentence “I took my money to the bank.” would be given a different embedding from the same word within the sentence “I took a nap on the bank of the river.”. This improvement upon the original set of word embedding algorithms is crucial, we contend, for capturing the nuanced uses of language which occur frequently in political-ideological polemics. Marx’s 1860 polemic against Karl Vogt [271], for example, makes use of several puns and purposeful misspellings of the names of those he is attacking (for example, calling a particular political opponent with the surname Ranigel “Ran-Igel”, likening him to an “Igel”, the German word for hedgehog – thus we would want to keep Marx’s use of “Igel” in this sense separate from uses of “Igel” in general German texts). In general, due to the harsh censorship of political writings under the regimes of Friedrich Wilhelm III and IV (1797–1840 and 1840–1861, respectively)⁹, text-analysis methods which are unable to capture the wide variety of ironic, metaphorical,

⁹See [346] for a detailed treatment of the effects of this censorship on Marx’s writings, and [327] for a chronological examination of the explicit and implicit literary references in Marx’s writings.

and figurative uses of words would thus be unable to capture many important political illocutions throughout 19th century German political discourse, which had to be performed almost exclusively by way of these figures of speech.

As discussed in more detail in Section 2.2.2, to further pinpoint the pathways of influence we employ a recently-developed modification of the original BERT algorithm which explicitly constructs a personalized embedding for each (word, author) pairing, in addition to the contextual embedding for each word relative to the entire corpus [412]. This enables us to capture not only the shared terms and figures of speech available to all authors within a discursive community, but also the *particular* ways in which they are employed by individual authors. Thus, while studies like [230] are able to discover shifts in the overall discourse around social class during the 20th century, for example that different education-related terms tended to become more dichotomous along the upper-class/lower-class axis, this modification of BERT would allow us to identify which authors in particular were ahead of the curve, adopting the newer senses of education-related terms earlier than others. Although testing for the causal influence of these early-adopters on the broader discourse is outside the scope of this paper, we are still therefore able to identify a necessary condition for causal influence—temporal precedence—and thus develop plausible causal hypotheses based on which authors’ embeddings precede the overall embeddings in terms of the movement of key terms along socially meaningful axes. In particular, in Section 2.2.3 we will identify a movement in the language of 19th century socialist discourse writ large, away from philosophically-framed Hegelian terms and towards a more positivistic political-economic vocabulary, then identify Marx as a plausible cause of this shift due to the correlation between Marx’s trajectory along this axis to the lagged trajectory of the corpus of 19th century socialist texts along the same axis.

2.2 Part I: Influences on Marx

2.2.1 Background: Sources of Influence on Marx's Thought

Lenin's aphorism is perhaps the most oft-cited assertion that Marx's thought developed at the intersection of German philosophy, French socialism, and British political economy, but it is certainly not the earliest. Marx himself emphasized the necessity of combining these regional strands of thought as early as 1844 in an article for *Vorwärts!*, stating that "the German proletariat is the theoretician of the European proletariat, just as the English proletariat is its economist, and the French its politician."¹⁰ In fact, several of Marx's precursors had voiced a similar sentiment regarding the necessity of trans-national philosophical and practical development: Ludwig Feuerbach had earlier proclaimed that "the 'new' philosophy, if it wished to be at all effective, would have to combine a German head with a French heart,"¹¹ while Moses Mess, an early convert to Communism (during his time in Paris) who worked with Marx and Engels in Cologne as part of the *Rheinische Zeitung* in 1843, had published a book in 1841 titled *Die europäische Triarchie (The European Triarchy)* [188] emphasizing the necessity of precisely the tri-national combination under consideration here (i.e., thus adding British political economy into the mix). It is with these considerations in mind that we now survey the subsequent literature on the respective influences of German philosophy, French republican socialism, and British political economy on the development of Marx's thought.

2.2.2 Methods

The methodological contribution of this paper is twofold: first, we leverage insights from computational stylometry to study how Marx's *rhetorical style* drew on (or deviated from) the rhetorical strategies of his ideological predecessors. Then, we utilize state-of-the-art

¹⁰Marx, "Critical Marginal Notes on the Article 'The King of Prussia and Social Reform. By a Prussian'", *Vorwärts!*, No. 64, August 10, 1844. *MECW* Vol. 3, , p. 202.

¹¹[279], p. 64.

neural contextual embedding techniques to trace the trajectory of Marx’s thought over time, relative to European socialist thought in general, through “semantic space” – i.e., a geometric space constructed to map out the language of the different critiques of capitalism included in our corpus, from moralistic to Hegelian to political-economic.

2.2.2.1 Stylistic Similarity: Computational Stylometrics

2.2.2.2 Semantic Trajectory: Contextual Embeddings via Neural Transformers

2.2.3 Results

2.2.3.1 German Philosophy: Calibration Tests

To help illustrate what exactly these methods are picking up when comparing two texts, we start by showing the range of similarity scores between pairs of Hegel’s own texts (Table 2.2.1).

The results of the similarity tests among Hegel’s own texts are given in Table 2.2.1.

Table 2.2.1: Self-similarity between Hegel’s works, using the embedding-based measure

	Phänomenologie (1807)	Geistes (1817)	Logik (1817)	Natur (1817)
Phänomenologie (1807)	1.0000	–	–	–
Geistes (1817)	0.9635	1.0000	–	–
Logik (1817)	0.9478	0.9568	1.0000	–
Natur (1817)	0.8770	0.8653	0.8920	1.0000

2.2.3.2 German Philosophy: Results

A plot with Marx’s semantic similarity to Hegel (by work, over time) can be found in Figure 2.2.1, with the corresponding numeric similarity scores presented in Table ??.

Interestingly, given that many scholars locate Marx’s departure from Hegel in his critical engagement with the latter’s *Philosophie des Rechts* in 1843, in terms of semantic content Marx’s engagement with Hegelian *themes* actually increases fairly dramatically after this time. This makes sense, however, if we consider the period roughly from 1843-1846 as

Table 2.2.2: Similarities between Marx and Hegel's works, over time

	Phänomenologie (1807)	Logik (1817)	Natur (1817)	Geistes (1817)	Me
Differenz (1841)	0.8612	0.8881	0.9136	0.8691	0.88
Zensor (1842)	0.8288	0.8421	0.7868	0.8561	0.82
Hegel Critique (1843)	0.8539	0.8588	0.8072	0.8814	0.85
Holy Family (1844)	0.8427	0.8280	0.8426	0.8520	0.84
1844 Manus (1844)	0.8521	0.8297	0.8107	0.8620	0.83
German Ideology (1846)	0.8738	0.8621	0.8833	0.8894	0.87
Misere (1847)	0.7692	0.7908	0.8088	0.7760	0.78
Manifesto (1848)	0.6632	0.6163	0.6640	0.6500	0.64
18th Brumaire (1852)	0.7092	0.6912	0.7549	0.7194	0.71
Grundrisse (1858)	0.7191	0.7500	0.7727	0.7335	0.74
Kritik (1859)	0.7169	0.7554	0.7971	0.7169	0.74
Herr Vogt (1860)	0.6162	0.6446	0.7422	0.6546	0.66
Mehrwert 1 (1862)	0.6066	0.6323	0.6540	0.6439	0.63
Mehrwert 2 (1862)	0.5887	0.6382	0.6523	0.6341	0.62
Mehrwert 3 (1862)	0.6263	0.6606	0.6718	0.6593	0.65
Lohn (1865)	0.6673	0.7020	0.6958	0.6928	0.68
Kapital V1 (1867)	0.6848	0.7039	0.7648	0.6975	0.71
Civ War in France (1871)	0.6798	0.6525	0.7321	0.6878	0.68
Gotha (1875)	0.7111	0.7225	0.7099	0.7403	0.72
Kapital V2 (1885)	0.5986	0.6251	0.6652	0.6136	0.62
Kapital V3 (1894)	0.6258	0.6578	0.6861	0.6412	0.65

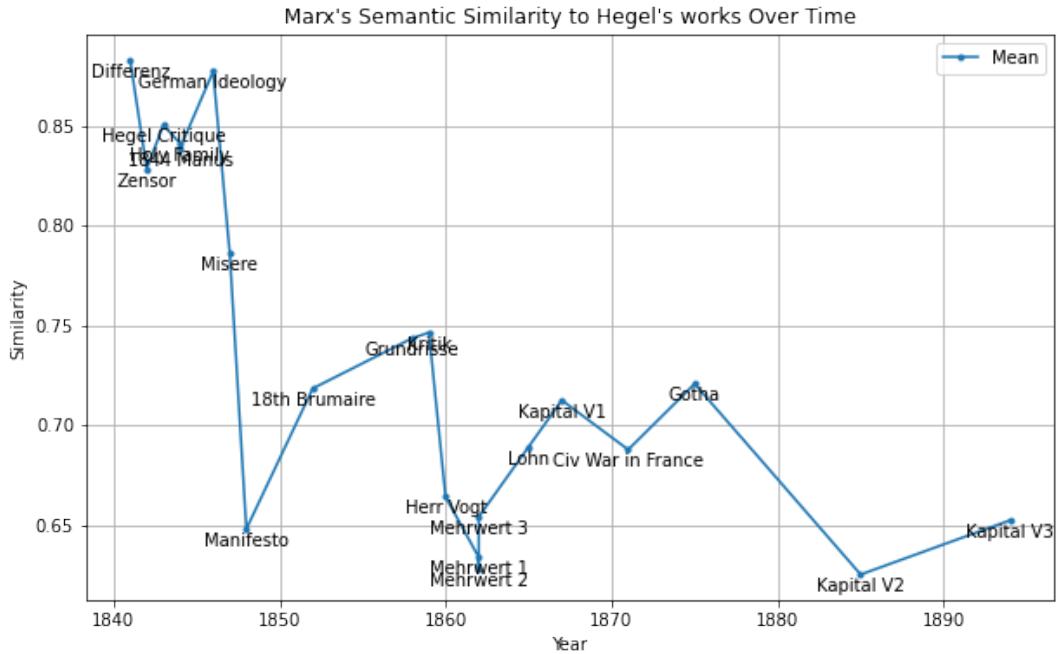


Figure 2.2.1: Marx's similarity to Hegel, over time

a period wherein Marx aimed to distance himself from the Young Hegelians precisely by attacking their Hegel-oriented doctrines in the *Holy Family* as well as the *German Ideology*, and then the period from 1847 onward as his transition into his final economist phase. In fact, from what I can tell, the opening pages of the 1847 *Misère de la Philosophie* are the first in which Marx explicitly identifies himself as an economist:

M. Proudhon has the misfortune to be uniquely misunderstood in Europe. In France he has the right to be a bad economist, since he passes for a good German philosopher. In Germany, he has the right to be a bad philosopher, because he passes as a prominent French economist. Being ourselves both German and economist, we have wished to protest against this dual mistake.¹² (*MECW* Vol.

¹²In Marx's original French: "M. Proudhon a le malheur d'être singulièrement méconnu en Europe. En France, il a le droit d'être mauvais économiste, parce qu'il passe pour être bon philosophe allemand. En Allemagne, il a le droit d'être mauvais philosophe, parce qu'il passe pour être économiste français des plus forts. Nous, en notre qualité d'Allemand et d'économiste à la fois, nous avons voulu protester contre cette double erreur" (*MEGA*¹ I/6, 19; *Misère* will also appear in its original French in the not-yet-published *MEGA*² I/6,).

6, 109, as quoted in [396])

2.2.3.3 French Republicanism: Calibration Tests

To again establish our expectations with respect to what the similarity scores are capturing, we first show the similarity results for the set of Proudhon’s texts included in our corpus.

These pairwise similarity scores between Proudhon’s works are given in Table 2.2.3.

Table 2.2.3: Self-similarity between Proudhon’s works, using the embedding-based measure

	Eigentum	Nothwendigkeit	Bekenntnisse	Solution
Eigentum	1.0000	—	—	—
Nothwendigkeit	0.9586	1.0000	—	—
Bekenntnisse	0.9120	0.9316	1.0000	—
Solution	0.9478	0.9529	0.8992	1.0000

2.2.3.4 French Republicanism: Results

Similarities between Marx’s works and those of Proudhon are given in Figure 2.2.2, with the corresponding figures given in Table 2.2.4.

2.2.3.5 British Political Economy: Calibration Tests

As we did for German philosophy and French republican socialism, here we first examine the range of similarity measures our methods produce for a pair of books with an “established” relationship of influence: Adam Smith’s *Wealth of Nations* (1776) and David Ricardo’s *On the Principles of Political Economy and Taxation* (1817), given that the latter is in large part written as a response to Smith’s groundbreaking 1776 work¹³.

The results of these calibration tests are given in Table 2.2.5.

¹³Unlike in the previous two sections, here we opt not to compare Smith’s *Wealth of Nations* with e.g. his own earlier *Theory of Moral Sentiments*, on the grounds that our aim is not to capture “Smith-ness” writ large, but rather “political-economy-ness” in the tradition established by *Wealth of Nations*, rather than the less influential and more political-philosophy-oriented *Theory of Moral Sentiments*. In Appendix 2.C, for transparency, we provide a version of Table 2.2.5 which incorporates the *Theory of Moral Sentiments* as well.

Table 2.2.4: Similarities between Marx's and Proudhon, over time

	Eigentum (1840)	Nothwendigkeit (1847)	Bekenntnisse (1848)	Solution (1848)
Differenz (1841)	0.8072	0.8651	0.8326	0
Zensor (1842)	0.8231	0.8389	0.8798	0
Hegel Critique (1843)	0.8346	0.8164	0.8759	0
Holy Family (1844)	0.8733	0.9263	0.9149	0
1844 Manus (1844)	0.9176	0.8992	0.8369	0
German Ideology (1846)	0.9270	0.9629	0.9277	0
Misere (1847)	0.9188	0.9257	0.8603	0
Manifesto (1848)	0.7920	0.8113	0.7899	0
18th Brumaire (1852)	0.8493	0.8711	0.9442	0
Grundrisse (1858)	0.8749	0.8579	0.7669	0
Kritik (1859)	0.7980	0.8132	0.7415	0
Herr Vogt (1860)	0.7969	0.8534	0.8274	0
Mehrwert 1 (1862)	0.8746	0.8370	0.7257	0
Mehrwert 2 (1862)	0.8527	0.8148	0.7152	0
Mehrwert 3 (1862)	0.8611	0.8243	0.7241	0
Lohn (1865)	0.8683	0.8456	0.7631	0
Kapital V1 (1867)	0.8716	0.8748	0.7794	0
Civ War in France (1871)	0.8218	0.8537	0.9006	0
Gotha (1875)	0.8917	0.8645	0.8323	0
Kapital V2 (1885)	0.7712	0.7554	0.6843	0
Kapital V3 (1894)	0.8119	0.7903	0.7076	0

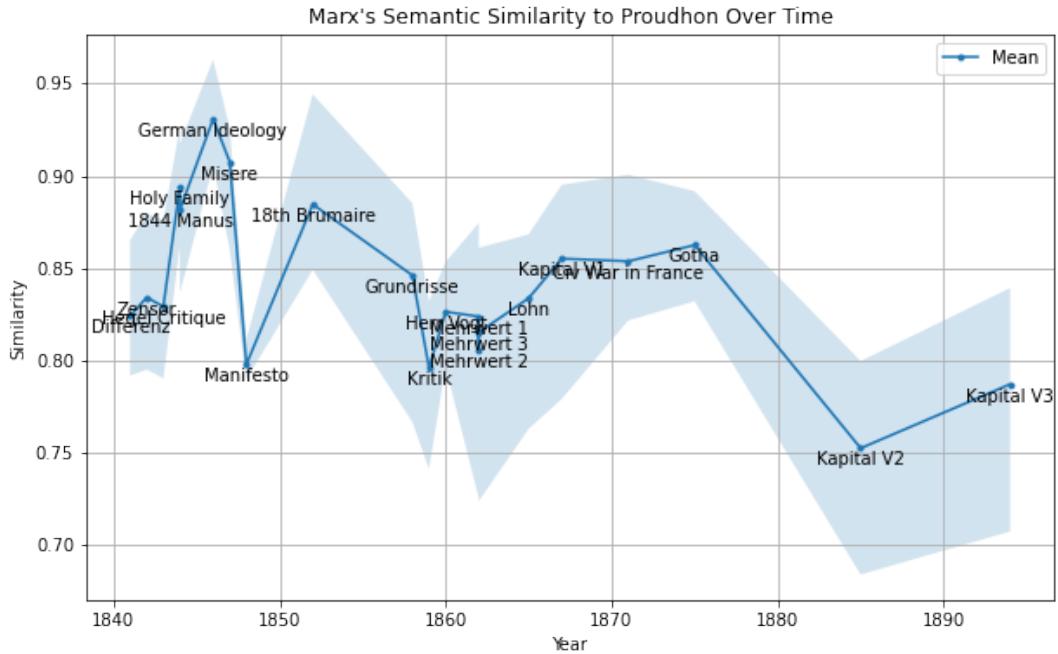


Figure 2.2.2: Marx's similarity to Proudhon, over time

Table 2.2.5: Self-similarity between Works of Political Economy, using the embedding-based measure

	Wealth of Nations (2014)	Grundgesetze (1877)
Wealth of Nations (2014)	1.0000	—
Grundgesetze (1877)	0.9400	1.0000

2.2.3.6 British Political Economy: Results

As can be seen in Figure 2.2.3 and Table 2.2.6, Marx's "Smith-ness" increases significantly – by over 10% – from his 1841 dissertation to his 1844 Manuscripts, then increases significantly but less rapidly in *Poverty of Philosophy* and reaches a peak in 1858-1867 with the *Grundrisse*, the *Kritik der Politischen Ökonomie*, the three volumes of *Theorien über den Mehrwert*, and *Kapital*, Vol. 1, with the notable exception of the extremely non-political-economic *Herr Vogt*.

Table 2.2.6: Similarities between Marx's works and Works of Political Economy, over time

	Grundgesetze (1838)	Wealth of Nations (2014)	Mean
Differenz (1841)	0.7565	0.7395	0.7480
Zensor (1842)	0.7161	0.7262	0.7211
Hegel Critique (1843)	0.7289	0.7224	0.7257
Holy Family (1844)	0.7923	0.7923	0.7923
1844 Manus (1844)	0.8625	0.8206	0.8416
German Ideology (1846)	0.8606	0.8441	0.8524
Misere (1847)	0.9290	0.9067	0.9178
Manifesto (1848)	0.7718	0.7709	0.7714
18th Brumaire (1852)	0.7968	0.7976	0.7972
Grundrisse (1858)	0.9315	0.8853	0.9084
Kritik (1859)	0.8866	0.8942	0.8904
Herr Vogt (1860)	0.7584	0.7286	0.7435
Mehrwert 1 (1862)	0.9070	0.8169	0.8620
Mehrwert 2 (1862)	0.9174	0.8133	0.8654
Mehrwert 3 (1862)	0.9113	0.8265	0.8689
Lohn (1865)	0.9260	0.8683	0.8971
Kapital V1 (1867)	0.9314	0.8985	0.9150
Civ War in France (1871)	0.7766	0.7935	0.7850
Gotha (1875)	0.8359	0.7897	0.8128
Kapital V2 (1885)	0.8654	0.8077	0.8365
Kapital V3 (1894)	0.9169	0.8741	0.8955

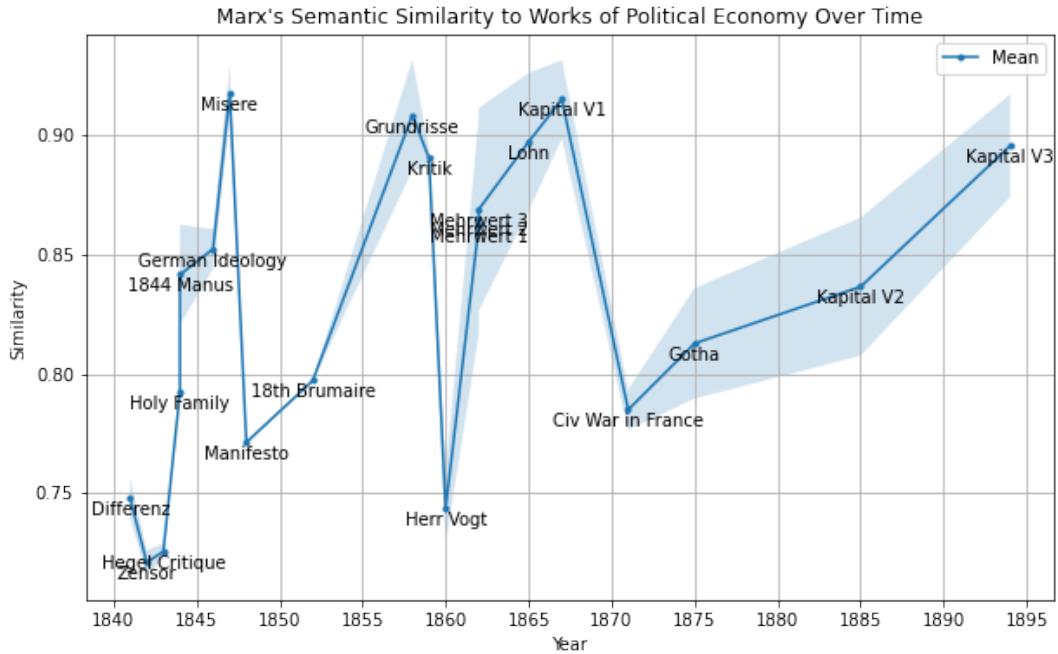


Figure 2.2.3: Marx's similarity to works of Political Economy, over time

2.3 Part II: Marx's Influence

2.3.1 Introduction

Perhaps the single key driver of the development of Marx's thought over the course of his life was his almost obsessive impulse to engage in polemics with those he viewed as obstacles to (in his early years) or rivals to (in later years) his assumption of the throne as the intellectual leader of the 19th century European socialist movement. We have already encountered this tendency in previous sections, when discussing the development of his thought with respect to the “stationary targets” of his criticism—namely, the already-established big names in political economy, early socialism, and philosophy such as Adam Smith, David Ricardo, Henri de Saint-Simon, and Hegel. In this section we turn to Marx's “forward-facing” polemics against his various interlocutors, his critique of the “moving targets” vying with him for intellectual influence over the quickly-growing European socialist movements of the

era.

Central to this section is the move from *influences* to *interlocutors*. While Marx could isolate himself in his studies of the former for as long as he needed to develop cogent critiques, the European socialist movement moved at its own pace, requiring his critiques of the latter to be not only cogent but *timely* as well. Engels, for example, urged Marx in 1845 to complete and publish his already-in-progress political-economic tract as soon as possible, emphasizing that “people’s minds are ripe and we must strike while the iron is hot”¹⁴. The urgency heightened even more when, in the ensuing year, the prominent French socialist Pierre-Joseph Proudhon published his own such tract titled *Système des contradictions économiques*. As Keith Tribe puts it in his insightful analysis of Marx’s subsequent polemics with Proudhon, “the publication of Proudhon’s *Système* galvanised [Marx] into writing a shorter work so that he might stake his claim to being Western Europe’s foremost ‘radical political economist’. [Marx’s 1847] *Misère de la philosophie* is primarily a bid for market leadership, and it certainly reads that way.” ([396], p. 224)

Similarly, after having spent a decade in exile in London desperately working to maintain his relevance within the growing socialist movement of his home country, the 1859 publication of an attack on him in a German newspaper persuaded him to drop his political-economic studies for nearly two years in order to craft a response which would quell the “foggy gossip of the [1848] refugees”¹⁵. The attack, penned by a minor figure from the 1848 Frankfurt Assembly named Karl Vogt, cajoled Marx into working full-time to collect evidence against Vogt, culminating in a 208-page work, *Herr Vogt*, for which he was never able to find a German publisher. Thus, in the remainder of the section, we take seriously the centrality of these “wars of ideas” in the development of Marx’s thought by turning to an analysis of his illocutionary moves—what he was *doing* with these polemical interventions, and how exactly he positioned himself within ideological spaces, in a way which eventually succeeded in crowding out all other contenders.

¹⁴MEW Vol. 27, , p. 16.

¹⁵MEW Vol. 30, , p. 17.

While some polemical episodes are not considered herein—for example, his 1847 polemic against Karl Heinzen after the latter’s attack on Engels in the *Deutsche-Brusseler Zeitung*¹⁶, or his 1865 debate with his fellow International Working Men’s Association (IWMA) General Council member John Weston¹⁷—we focus on four such episodes that were particularly impactful, we argue, with respect to the development of Marx’s thought. We begin with his first major “public break” (his break with the liberalism of his father and schoolmasters in Trier, via his turn to Hegel in the late 1830s, only being known to us by way of his private letter to his father cited previously), his polemics against the pure philosophizing of the Young Hegelians between 1843 and 1845, culminating in his justly famous “Theses on Feuerbach” which asserted his commitment to a philosophy of *praxis* – a commitment to *engaged* philosophy which aimed not only to understand society but also to change it.

Next we move to the period from 1845 to 1849, characterized by the buildup to and eventual defeat of the 1848 revolutions which swept across Europe. We focus especially on his critique of “state socialists” like Louis Blanc here, since this became a central focal point around which socialist polemics swirled after Blanc’s appointment to the revolutionary provisional government in 1848, where he was expected to begin implementing his scheme for “national workshops” as outlined in his tract *Organization of Labor* (1840)¹⁸

¹⁶Culminating in the article “Moralising Criticism and Critical Morality. A Contribution to German Cultural History. Contra Karl Heinzen”, published in the same newspaper in October and November of that year. MECW Vol. 6, , p. 312.

¹⁷Culminating in an 1865 address to the IWMA in which Marx introduced his mature political-economic views (published long-form in the first volume of *Das Kapital* two years later), which was published posthumously in the form of a pamphlet entitled *Value, Price, and Profit*.

¹⁸In reality, Blanc was almost completely hamstrung in these efforts from the start, and almost surely doomed to failure. While public perception, shrewdly encouraged by his opponents, was that he had been tasked with implementing the workshops, in fact he had only been appointed to head the “Luxembourg Commission” where he battled with his cynical rival representatives just to complete a report on the feasibility of his schemes, thus keeping him preoccupied while forces of reaction and monarchical restoration worked to defeat the gains of the revolution outside of these meetings. See, e.g., [6].

2.3.2 Marx's Interlocutors

2.3.2.1 The Young Hegelians, 1843–1845: Bruno Bauer and Max Stirner

Although he had planned to write critiques of particular contemporary authors like Hermes or Rosenkranz as early as 1839, it was his critique of Hegel's Philosophy of right in 1843 that scholars typically point to as marking the beginning of Marx's period of "committed" polemics against the Young Hegelian milieu which he had initially identified himself as part of. After the Critique of Hegel's Philosophy of Right, his first true engagement with a Hegelian "interlocutor" (as opposed to Hegel himself, who had been dead for 12 years when Marx wrote the Critique of his Philosophy of Right) came in the form of his writing "On the Jewish Question". The themes of this work were further expanded upon, and the scope of his polemics expanded to include Max Stirner and Ludwig Feuerbach, in his first joint work with Engels in 1844, *The Holy Family*. Marx considered this work to be his "final break" with the Young Hegelians, with the exception of Feuerbach – his final break with the latter would not come until his second joint work with Engels, the *German Ideology*, written in 1846 but never published in Marx's or Engels' lifetime (in fact, not published until the 1930s).

"the sovereign derision that we accord to the Allsemeine Literatur-Zeitung is in stark contrast to the considerable number of pages that we devote to its criticism?" Engels to Marx

2.3.2.2 "State Socialism" I, 1845–1849: Louis Blanc

Although a number of works have explored Marx's views on the State in detail (e.g., [204] and [205]; [118]; and [244], Ch. 7), these investigations typically focus on Marx's work after the rise and fall of the Paris Commune in 1871, especially his 1875 *Critique of the Gotha Programme*. In this section, however, we hope to draw more attention to Marx's (admittedly more opaque and imprecise) work from an earlier era, namely, the years leading up to the 1848

revolutions. In his writings from this period one can already infer the main characteristics of Marx's burgeoning socialist conception of the state, especially in his criticisms of European "state socialists" like Louis Blanc who envisioned a non-revolutionary path to socialism set into motion by the introduction of universal suffrage and constitutional constraints on power.

2.3.2.3 Anarchism I, 1846–1849: Pierre-Joseph Proudhon

Pierre-Joseph Proudhon's thought, as our quantitative analysis will corroborate, was an eclectic and self-taught mixture of his 1830s engagement with theology and philology in the 1830s with his subsequent engagement—predating Marx's own by a few years—with British political economy and Hegelian philosophy. In fact, although details on their engagement are scarce¹⁹, some researchers accept Marx's post-falling-out contention that he taught Proudhon everything he knew about Hegel.

In fact, although most works on the early development of Marx's thought contend that Marx's transition from Young Hegelianism to British political economy was driven by Engels' 1843 engagement with the latter, published in his "Umrisse", a good case could be made for the hypothesis that Proudhon played a not-insignificant role. As a comparison of their reading notebooks (Table 2.3.1) attests, Proudhon had already read many of the texts noted as central to this Engels-to-Marx transmission three or four years before Marx began studying them.

2.3.2.4 Challengers to the Throne I, 1859–1860: Karl Vogt

As chronicled by several of his biographers, Marx's political-economic writing incurred several major interruptions in the form of protracted polemics against other socialists whom Marx viewed as potential opponents (or perhaps saboteurs) for hegemony over European socialist discourse. In 1859 and 1860 for example, after the publication of his *Zur Kritik*, Marx abruptly ceased working on his "Economics" and began a polemic with Karl Vogt,

¹⁹ Scarce despite numerous research endeavors, typically in the same anarchists-versus-Marxists vein as the studies on Marx and Bakunin described in more detail in Section 2.3.2.6 below).

Text	Proudhon	Marx
Adam Smith, <i>Wealth of Nations</i> (1776)	Oct 1841	Mar–Aug 1844
David Ricardo, <i>Principles</i> (1817)	Oct 1841	1844
Charles Comte, <i>Traité de la propriété</i> (1834)	1839	—
F. X. J. Droz, <i>Propriété</i> (1832)	1839	1846
A. Destutt de Tracy, <i>Économie politique</i> (1823)	1839	Oct 1843–1845
Adolphe Blanqui, <i>Hist. de l'econ. pol.</i> (1837)	1839	1845
Dugald Stewart, <i>Esquisses de phil. morale</i> (1793)	1839	1858–1862
J. B. Say, <i>Cours complet de Écon. pol.</i> (1828)	1839	Oct 1843–1845
A. A. Cournot, <i>Principes mathém. d'Écon. pol.</i> (1838)	1839	—
P. Rossi, <i>Cours d'Écon. pol.</i> (1836)	Jan 1840	1845
G. Garnier, <i>Da la propriété</i> (1792)	Nov 1840	—
A. Ciezkowski, <i>Du crédit et de la circulation</i> (1839)	Oct 1841	—

Table 2.3.1: A comparison of the dates of first reading for key political-economic texts, as recorded in Proudhon’s and Marx’s respective reading notebooks. On Proudhon’s reading notebooks, see Appendix 2.D.6.2. On Marx’s, see Appendix 2.D.1. Entries after Smith and Ricardo are listed in the order in which they appear in [179]. Sources for each date of reading are given in Appendix 2.E.

a minor figure from the 1848 Frankfurt Parliament who had slandered him in a German newspaper. The extent to which his need to strike back suddenly superceded all other concerns is aptly described by David McLellan in his biography of Marx:

This quarrel, which occupied Marx for eighteen months, is a striking example both of Marx’s ability to expend tremendous labour on essentially trivial matters and also of his talent for vituperation. ([279], p. 311)

Even Engels himself, normally supportive of Marx in all his endeavors, diplomatically begged the latter not to allow the “Vogt affair” to interrupt his political-economic studies:

The prompt appearance of your second installment²⁰ is obviously of paramount importance in this connection and I hope that you won’t let the Vogt affair stop you from getting on with it. [...] I am very well aware of all the other interruptions that crop up, but I also know that the delay is due mainly to your own scruples.

²⁰Referring to the “sequel” to Marx’s 1859 *Contribution to the Critique of Political Economy* (*Zur Kritik der Politischen Ökonomie*), i.e., to the work that would eventually coalesce into the three volumes of *Das Kapital*.

Marx did not heed Engels' plea, however, and pressed onwards with his 18 months of work on what was to become the 208-page *Herr Vogt*. Characteristically, however, Marx was never able to find a German publisher, thus defeating the entire purpose of the work in the first place.

2.3.2.5 “State Socialism” II, 1864–1883: Ferdinand Lassalle

Ferdinand Lassalle, a German socialist intellectual and agitator²¹ played a variety of seemingly-incongruous roles in the development of Marx’s post-1848 social and economic thought. A study of *MEGA*², for example, would give an impression of Lassalle as someone with whom Marx tried to remain on good terms via his direct correspondence, despite harboring an intense disdain towards him (which comes out in his descriptions of Lassalle in letters to Engels over the same time period), a balancing act which was “resolved” by Lassalle’s early death after an 1864 duel. If one takes into account late-19th-century developments in European socialism immediately before and after the 1875 establishment of the German SPD, however, it emerges that in fact Lassalle’s immense posthumous influence outlived even Marx himself. It wasn’t until Engels’ work moulding the ideology of the SPD for 12 years following Marx’s death that Lassalleanism was “defeated” as a viable competitor to Marxism among European socialists.

2.3.2.6 Anarchism II, 1872–1883: Mikhail Bakunin

Mikhail Bakunin, hailed by some as the father of modern anarchism, is typically cast in the role of Marx’s main rival in the First International between 1868 (the year Bakunin joined) to 1872 (when Bakunin and his followers were expelled by Marx), in socialist and anarchist histories alike (see, e.g., [126]). Interestingly, however, Marx and Bakunin crossed paths fairly regularly, in substantial ways, from 1840 onwards. To name just one rarely-

²¹The rendering of his surname as “Lassalle” is actually a Gallicization of his family name, Lassal, a spelling he promulgated early on to deflect attention away from his Silesian origins, as part of his goal to establish himself as a radical intellectual in Paris starting in the mid-1840s.

mentioned instance, Bakunin produced the first Russian translation of the *Communist Manifesto*, which was published in the periodical *Kolokol* in London in 1860²². Starting the narrative of the Marx-Bakunin relationship in 1864, therefore, ignores a great number of interactions which impacted the development of Marx's thought.

Bakunin moved from Moscow to Berlin in 1840 to enroll at the University of Berlin—the same university where Marx had been studying since 1836—and quickly became a prominent figure in the Young Hegelian movement alongside Marx, Bruno and Edgar Bauer, and Arnold Ruge. Bakunin and Marx both, in fact, contributed articles to Ruge's *Deutsche Jahrbücher für Wissenschaft und Kunst* in 1842, though Marx's contribution (ironically, a commentary on Prussian censorship restrictions) was censored by the Prussian government and only published a year later in Switzerland. After the Prussian government banned this publication outright in 1843, Marx and Ruge moved to Paris to co-found the *Deutsche-Französische Jahrbücher*, with Bakunin joining them in the city that same year. After finally meeting in person in 1844, Marx and Bakunin corresponded in a mostly-cordial fashion for decades, up until the 1872 split of the First International. Even as late as 1871, for example, Bakunin accepted a commission to produce the first Russian translation of Volume 1 of *Das Kapital*, a work which he deeply admired, having earlier commented that "no other work that I know of puts together such a profound, enlightening, scientific, decisive analysis" of the capitalist economy.

The 1872 split and the four years leading up to it—an episode of Marx's life which Alvin W. Gouldner calls "the culminating conflict of [Marx's] political life" ([163])—have been exhaustively documented in two parallel literatures, which present two starkly contrasting narratives. The first narrative, promulgated most heavily in the Soviet Union, sees Marx effortlessly fusing theoretical insight with organizational prowess, keeping the International sharply focused on its proletarian revolutionary aims despite the best efforts of the saboteur

²²See [170], p. 283, cited in [136]. Bakunin had a number of path-crossings with Engels over the years, as well. They were both in attendance, for example, at F. W. J. Schelling's infamous 1841 lectures at the University of Berlin ([206], 44–46).

Bakunin²³. The second narrative, promulgated by both Western anti-Soviet historians and anarchists in nearly identical forms, sees Marx ruthlessly stamping out any and all anti-authoritarian voices in the International, with Bakunin finally giving up on his noble but quixotic efforts in 1872 to found the aptly-named Anti-Authoritarian International²⁴.

For the purposes of this work, however, it suffices to say that Marx viewed Bakunin as a key rival for leadership of the European socialist movement. Public perception and commentary on this movement, especially in the years leading up to the split, often compared the two, adding fuel to Marx's competitive fire. The Italian socialist newspaper *La Plebe*, for example, characteristically referred to Marx as "Germany's Bakunin" in a major article of January 1872²⁵. Hence, as is the case with nearly all of his works, Marx's discursive interventions throughout the era of the First International were driven primarily by polemical concerns.

Just as it is inappropriate to begin the Marx-Bakunin narrative in 1868, it is also inappropriate to end it with the 1872 split. Two years after the split, in April of 1874, Marx began reading Bakunin's *Staatlichkeit und Anarchie* (*Statism and Anarchy*). By the time he finished in January of 1875, he had copied 224 separate extracts into his notebook in Russian, some spanning several pages. He provided extensive commentary on 39 of these, breaking out of the extracts and writing paragraph-length or even page-length responses, in addition to the shorter inline comments he made on nearly all of them (ranging from single exclamation points to parenthetical definitions, translations, and quips)²⁶.

2.3.2.7 Challengers to the Throne II, 1883–1884: Eugen Dühring

When in the post-*Kapital V1* years another contender for Marx's historiographic crown emerged, Eugen Dühring, Engels (having learned from the Karl Vogt episode) consciously

²³See [305], pp. 280–297, for a fairly innocuous example.

²⁴A stark example of this contrasting narrative can be found in [126].

²⁵"Lettere da Berlino", *La Plebe*, Jan. 5, 1872, cited in [136], p. 32. See *ibid.* pp. 20–46 for an in-depth discussion of the Bakunin-Marx rivalry and its relation to 19th-century Italian socialist thought.

²⁶Our calculations, based on *MEW* Vol. 18, , pp. 597–642.

opted to take the lead and conduct the polemics himself so Marx could carry on with his work on *Kapital*. Although Marx did end up contributing in a non-trivial way to the resulting book *Herr Eugen Dühring's Revolution in Science* (typically shortened as *Anti-Dühring*), it was published under Engels' name in 1884, a year after Marx's death.

Unlike in the case of Vogt, however, Dühring was a worthy opponent, a major intellectual figure in Germany who wielded great influence and thus directly challenged the recently-acquired gains in Marx's prominence and notoriety after the rise and fall of the Paris Commune. Dühring's published works would have an immediate and substantial impact on German political-philosophical discourse—albeit an impact fairly distant from the epicenters of socialist discourse—with Friedrich Nietzsche being only one of many prominent post-Hegelian thinkers who were profoundly influenced by Dühring²⁷.

2.3.3 Methods

2.3.3.1 Author-Specific Embedding Spaces

Although the embedding methods described in Section 2.2.2 allowed us to construct a *single* ideological space within which we were able to compare Marx's writings with those of his posited influences, in this section we need a more advanced technique which will allow us to trace the differential usage of various terms both over time and across authors (or groups of authors). Thus, for the explorations in this section we utilize a newer method introduced in [412], that of “personalized” word embeddings. While still estimating an overall ideological space based on the entire corpus (labeled **MAIN** in the resulting dataset), this approach also allows us to label each text with an author, for whom a separate set of embedding vectors is estimated.

²⁷Nietzsche's reading included nearly all of Dühring's published works, some of which he read on multiple occasions—see the supplemental dataset on Nietzsche's known and conjectured reading described and linked in Appendix 2.D.6. For a summary of the main trends in post-Hegelian German philosophy, see [38], pp. 172–184 (“Dühring on the Value of Life”), where Dühring's “important place in the history of nineteenth-century philosophy” includes his role as “the founder of German positivism, the grandfather of Schlick, Carnap, Neurath, and Reichenbach.” (p. 174)

Importantly, this method does not generate a separate embedding *space* for every author, since one author’s vectors need to be comparable with any other author’s vectors²⁸. Instead, each author’s specific vector \vec{w}_i for a given term w is estimated as some offset relative to the vector for w in the MAIN vector space, \vec{w}_{MAIN} . Given a vector \vec{w}_{PE} representing the centroid of political-economic discourse within the broader ideological vector space (estimated via a procedure we detail in the next section), for example, this allows us to instantly check whether an author A tends to use a term w in a more political-economic context than some other author B , by checking whether $d\vec{w}_A, \vec{w}_{PE} < d\vec{w}_B, \vec{w}_{PE}$, or relative to the “average” usage of the term across the entire corpus, by checking whether $d\vec{w}_A, \vec{w}_{PE} < d\vec{w}_{\text{MAIN}}, \vec{w}_{PE}$.

A problem arises, however, if we try to estimate an author-specific vector for an author with very few texts in the corpus, akin to e.g. the problem of statistical power in regression estimation. To address this issue, we instead group individual authors into “meta-authors” based on the discursive community they are generally associated with in the historical literature. Thus, for example, the texts of Bruno and Edgar Bauer, Arnold Ruge, Max Stirner, etc., are combined into one Young Hegelian meta-author in order to estimate a vector \vec{w}_{YH} representing the centroid of Young Hegelian discourse (as defined by this author-to-group mapping) within the broader ideological space of 19th-century German discourse. Importantly, however, this approach is *not* used to generate the political-economic and Hegelian vectors which serve as our orthogonal basis vectors, for reasons we describe in the next section.

2.3.3.2 Discursive Fields as Embedding Clusters

As mentioned in the previous section, there are two special vectors \vec{w}_{PE} and \vec{w}_H , representing the centroids of political-economic and Hegelian discourse respectively, which we do *not* compute via author-specific embedding estimation. Instead, to minimize the dependence

²⁸i.e., for authors A , B , and C , the distance $d\vec{w}_A, \vec{w}_B$ between A ’s vector for some word w and B ’s vector for w must be on the same scale as the distance $d\vec{w}_A, \vec{w}_C$ between A ’s vector for w and C ’s vector for w , as well as the distance $d\vec{w}_B, \vec{w}_C$ between B ’s vector for w and C ’s vector for w .

(in the statistical sense) between our two basis vectors and the vectors like $\overrightarrow{w_{Marx}}$ for which we want to observe movement over time, we compute these basis vectors as centroids of word clusters which are derived independently via the cTFIDF measure, which generates a ranking of all terms in the corpus on the basis of how “unique” they are to political-economic texts relative to Hegelian texts (and vice-versa, by taking the N terms with lowest, rather than greatest, cTFIDF scores).

2.3.4 Results: Marx and the Socialist Movement

As can be seen in Figure 2.3.1, we indeed observe a time-lagged movement of the Socialist centroids for each decade in the same direction as Marx’s, namely, in the direction moving away from the Hegelian centroid and towards the political-economic centroid, from 1840 onwards (interestingly, after a move *towards* the Hegelian centroid between 1830 and 1840).

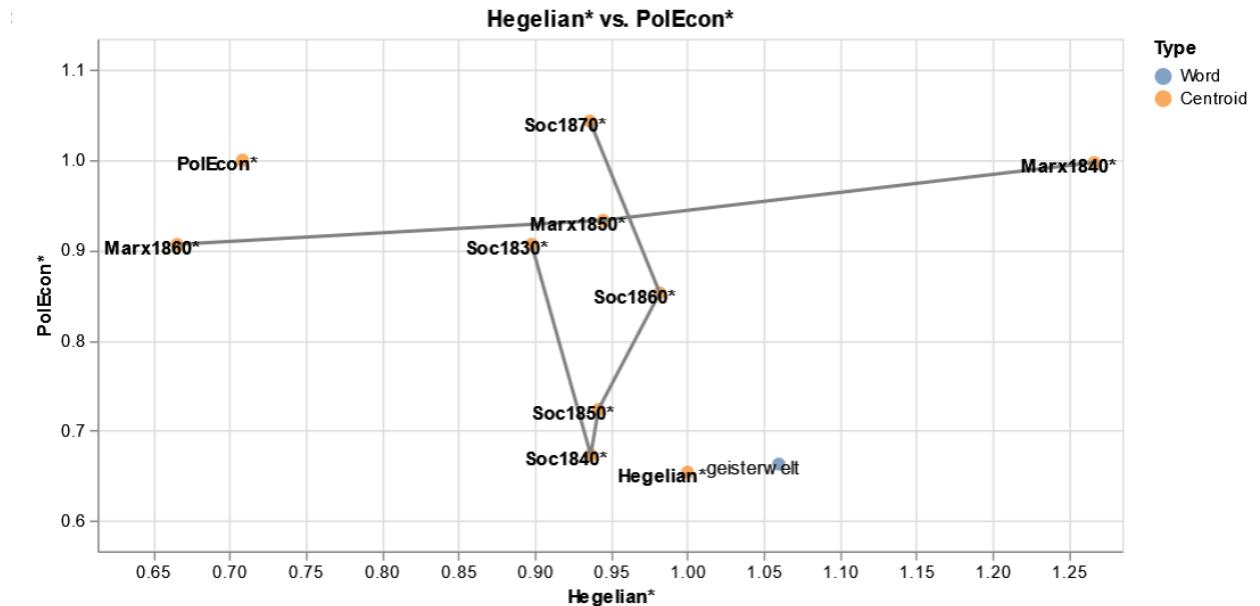


Figure 2.3.1: The trajectories of Marx’s decade-by-decade centroids and the decade-by-decade centroids of European socialist discourse, with respect to the static Hegelian (defining the x-axis) and Political-Economic (defining the y-axis) centroids.

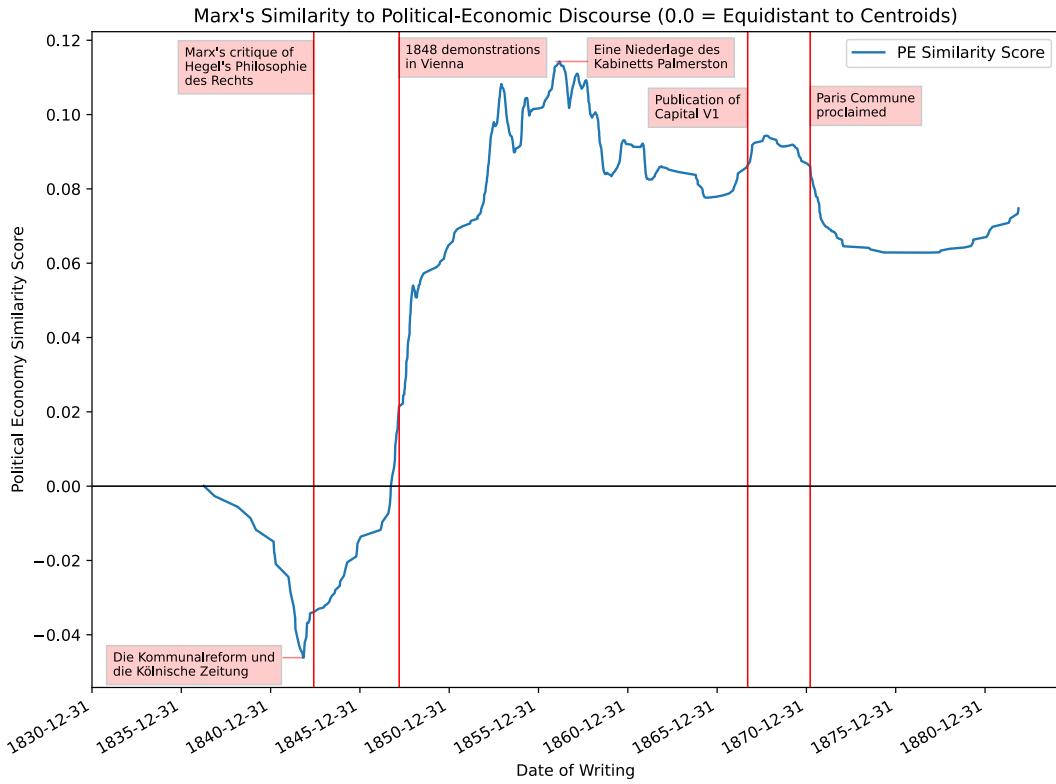


Figure 2.3.2: Rolling PE Similarity Scores for Marx’s Collected Writings

2.3.5 Results: Marx vs. Particular Authors

Although tracking the literary output of Marx’s interlocutors is generally a much more difficult task than tracking Marx’s own²⁹, a few collections of key rivals exist which enable us to “break apart” the Socialism vector into vectors for particular authors. With these individual-author vectors, we can evaluate which authors in particular had trajectories which drove the overall shift observed in the previous section.

Pierre-Joseph Proudhon’s writings are of special interest with respect to the computational nature of this work, since not only do we have his collected writings but also newly-

²⁹Ostensibly due to the fact that, unlike Marx, most 19th-century thinkers did not end up having a global superpower collecting and propagating their texts—on this topic, see our discussion of the Soviet “weaponization” of Marxism in [212].

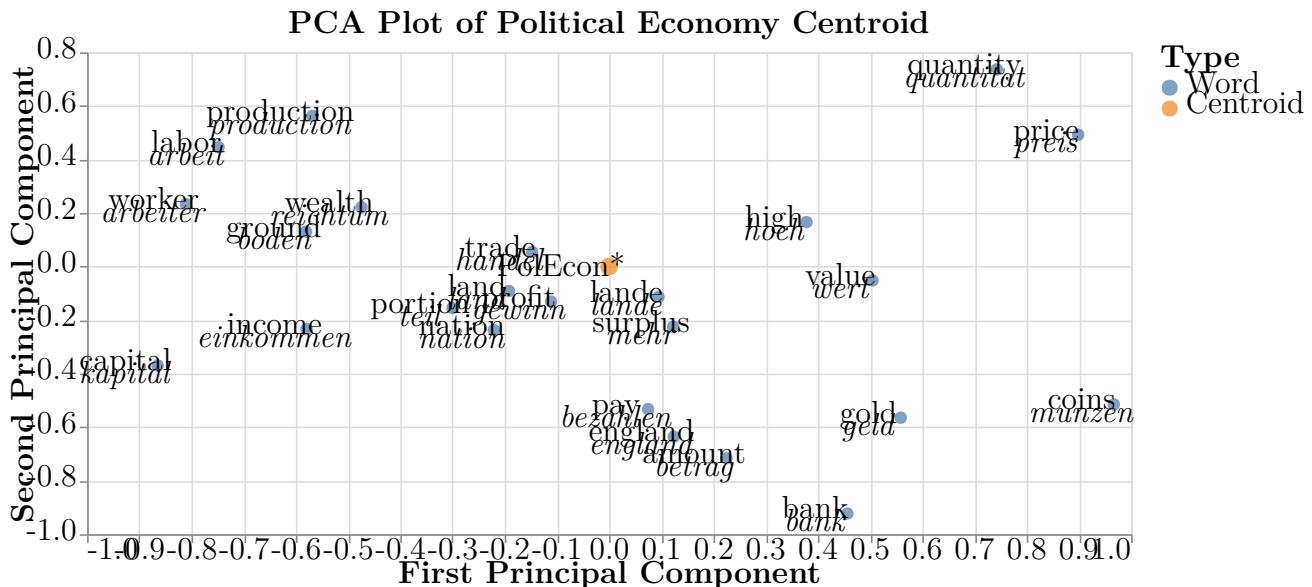


Figure 2.3.3: A Principal Component Analysis (PCA) plot of the Political Economy centroid with the top $N = 25$ words most distinctive to this subcorpus.

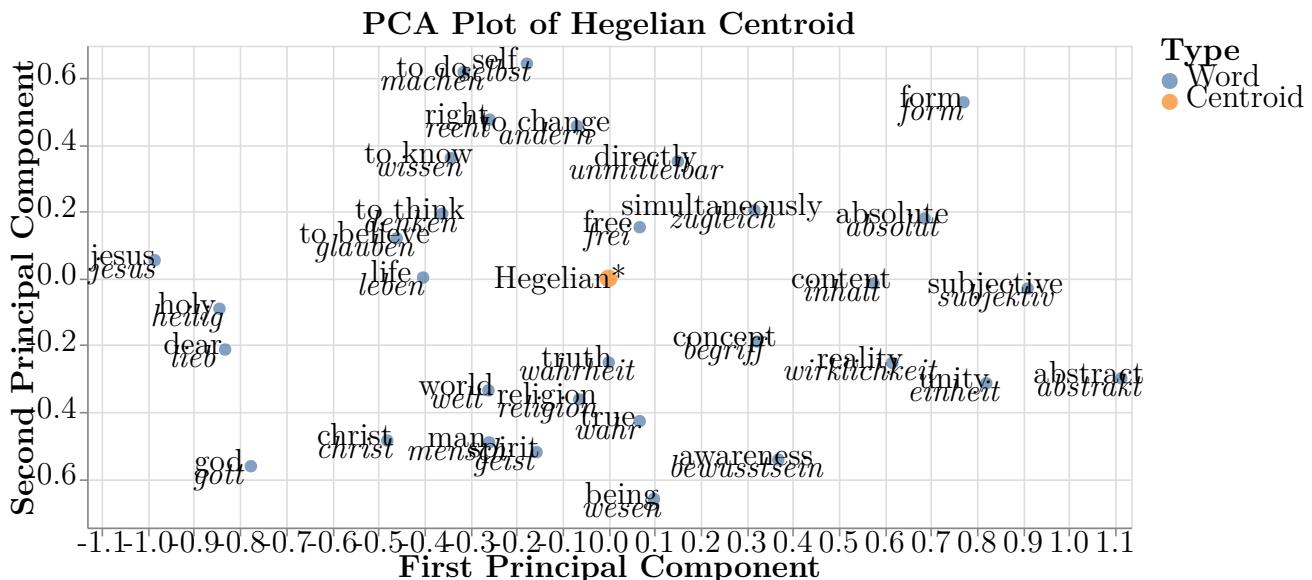


Figure 2.3.4: A Principal Component Analysis (PCA) plot of the Hegelian centroid with the top $N = 25$ words most distinctive to this subcorpus.

digitized scans of his notebooks, the *Carnets*, containing (as in the case of Marx) not only drafts of his works at various stages but also the meticulous reading notes and extracts he kept over the course of his life. An overview of this dataset, used throughout our analysis in Section 2.3.5.1 below, is given in Section 2.3.2.3 above, with more details provided in

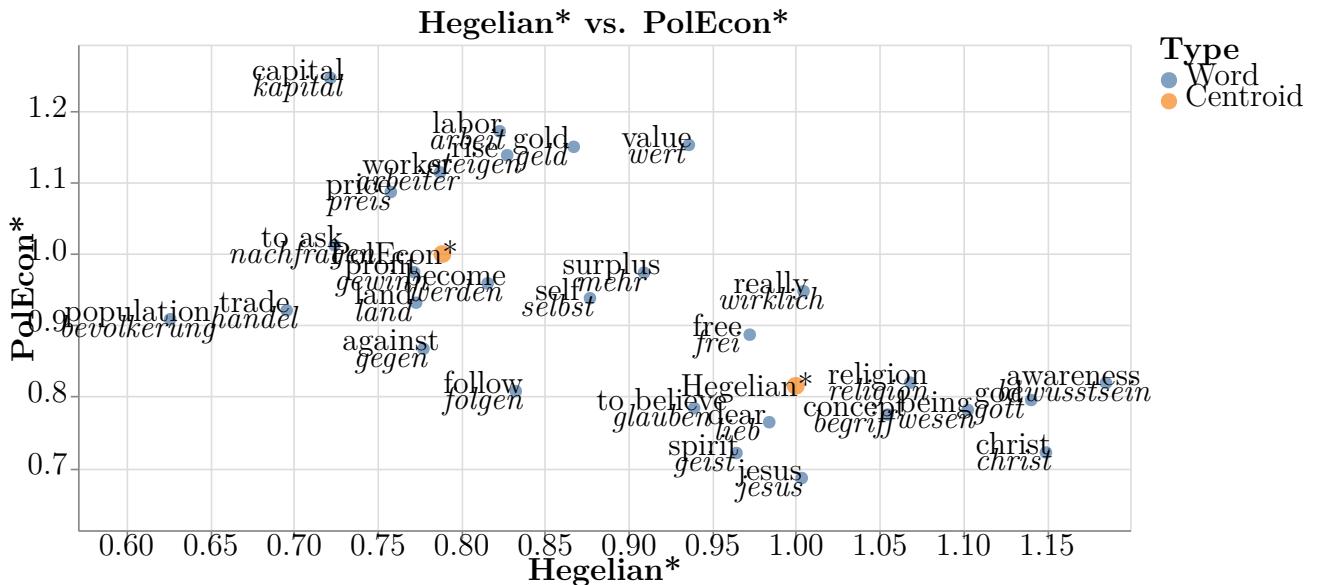


Figure 2.3.5: A plot of the two centroids used to define the ideological subspace (Political Economy and Hegelian), along with the top $N = 25$ words most distinctive to either subcorpus.

Appendix 2.D.6.2³⁰.

As for his main body of writings—those which were intended for public consumption—several large collections have been compiled, starting as early as 1850 when he was still actively publishing new works. This first 26-volume collection was completed in 1872, and scans of each volume are available through the Bibliothèque National de France's Gallica portal at <https://catalogue.bnf.fr/ark:/12148/cb31154797t>.

A comparison of Marx's writings with those of Ferdinand Lassalle, somewhat in contrast to the case of Proudhon, lets us analyze Marx's speech acts as a self-consciously *political* rather than economic actor. While (as argued in Section 2.3.2.3 above) Marx explicitly aimed to distinguish himself as a "better" economist than Proudhon, it was Lassalle's political principles and their manifestations in e.g. the Gotha Programme of 1875 (and the Erfurt Programme of 1891, in Engels' posthumous efforts his behalf) that Marx explicitly worked to repudiate and replace with his own.

³⁰For an overview of the *Carnets* in general, see the section entitled “Notes et Annotations Diverses” in the Appendix of [179], pp. 1079–1098.

Due to his prominence in the eyes of Second International-era SPD intellectuals like Eduard Bernstein, new collections of Lassalle's writings were compiled and published quite frequently from 1865 (starting with J. P. Becker's collection published just one year after Lassalle's death) up until the Nazi regime's rise to power. Although some additional collected-works projects were carried out in the GDR from 1949 onwards, three collected-works projects from the SPD era remain basically the canonical reference texts for scholarship on Lassalle to this day. The most commonly-referenced collection, the *Gesammelte Reden und Schriften* (GRS), was edited by Eduard Bernstein and published in 12 volumes from 1919 to 1920, while a second collection, the *Nachgelassene Briefe und Schriften* (NBS), was edited by Gustav Meyer and published in 6 volumes between 1921 and 1925, augmenting the corpus of the earlier 12-volume project with (for example) posthumously-discovered letters and earlier drafts of major speeches found in his notebooks³¹. A third collection, Eduard Bernstein's 1898 *Reden und Schriften* (RS) in 3 volumes, is referenced less often but remains influential nonetheless due to its status as the canonical reference for Lassalle's writings from the year of its publication up until the 1920s (when, as the later volume's title suggests, Bernstein's 12-volume GRS supplanted the 3-volume RS)³².

More recently, researcher Bert Andréas' valuable bibliography [18] contains entries for all known writings of Lassalle, along with known translations and information on differences (e.g., inclusion, exclusion, and modification of the original text) between subsequent editions and printings.

The compilation of our Lassalle dataset, which pairs digital plaintext versions of all his known writings with metadata on each text (e.g., date of writing and/or publication, data on all known versions, on all known translations, etc.), was aided immensely by our digitization

³¹Links to each volume are given in Appendix 2.D.6.3.

³²It is important to note, however, that (for reasons which are not made entirely clear in Bernstein's introduction) there are some texts in the RS which were *not* carried over into the GRS. For 6 of the 100 texts listed in Andréas' bibliography, therefore, we had to scrape the plaintext by OCRing scans of the original RS, which are of far lower quality than the available scans of the GRS and NBS. As explained in Appendix 2.D.6.4, however, these 6 texts can be identified and excluded from any analysis by filtering out texts whose `source` metadata variable is equal to "RS".

of Andréas' bibliography. The resulting diachronic corpus of Lassalle's writings is analyzed in Section 2.3.5.2 below and discussed in detail in Appendix 2.D.6.4.

Mikhail Bakunin's complete works in German have been published in 3 volumes in an edition titled *Gesammelte Werke* edited by Max Nettlau, available for full viewing at HathiTrust. In French, there also exists a 6-volume *Oeuvres* available at the Internet Archive³³.

However, as can be seen in Figure 2.3.6, which plots Bakunin's published writings over time, it is only in the period between 1868 and 1872 when Bakunin wrote to any significant degree, with three minor exceptions: the first is his article *Die Reaktion in Deutschland* published in Arnold Ruge's 1842 *Deutsche Jahrbucher* (discussed in Section 2.3.2.6 above), the second an 1848 speech in support of the revolutionary efforts in Poland, and the third his collected correspondence. For example, the 6-volume French collection contains no writings outside of this period, while the *Gesammelte Werke* delves only slightly outside of this range, covering the years 1865 to 1875 (with a single letter to Marx being the only inclusion from 1865, and a total of 20 pages of post-1872 writings). Therefore, although he ran (and published) in the same circles as Marx during the latter's Young Hegelian phase, and although there is some overlap in terms of whom they corresponded with before the era of the First International, the dearth of written material outside of 1868–1872 means we do not have sufficient data for our method to be able to track Marx's influence on Bakunin. There exists, however, a large body of interpretive work in the history of political thought on the mutual influence between the two figures: in addition to the works cited in Section 2.3.2.6 which focus mainly on the era of the First International, [388] traces the interaction between Marx and the anarchist movement more broadly over the course of Marx's lifetime, while Marshall S. Schatz's Introduction to [28]—a volume in the Cambridge Texts in the History of Political Thought series, edited by Raymond Geuss and Quentin Skinner—situates Bakunin's thought within the context of both 19th century radical political thought and the

³³Volume by volume links to this French collection are as follows: Volume 1, Volume 2, Volume 3, Volume 4, Volume 5, Volume 6.

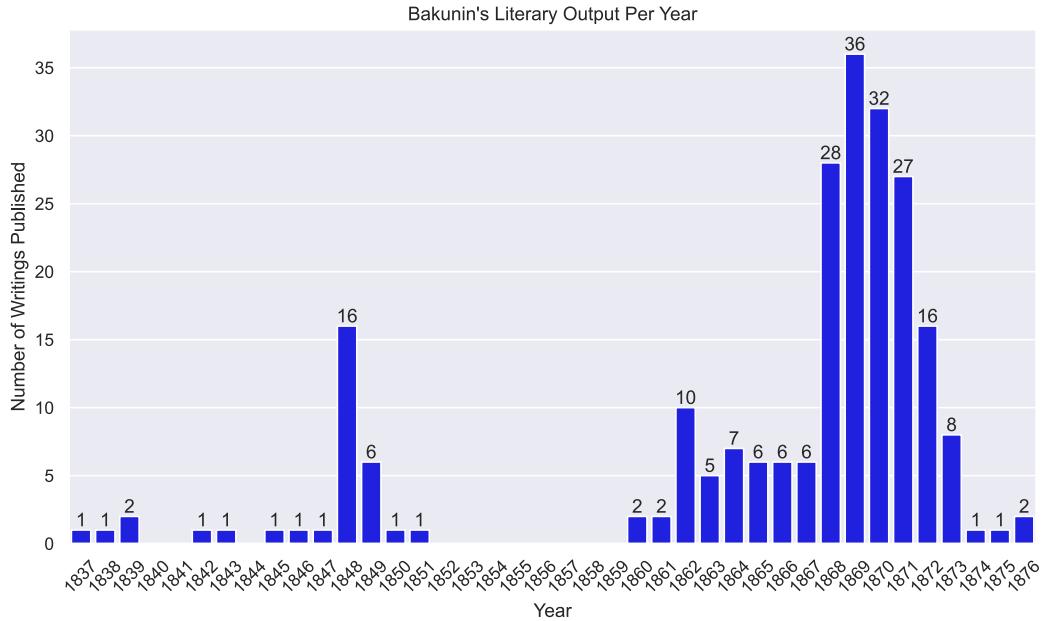


Figure 2.3.6: Bakunin’s Literary Output, 1837–1876

political upheavals across Europe during Bakunin’s lifetime.

2.3.5.1 Marx vs. Proudhon

As we hinted at in Section 2.3.2.3 above, Pierre-Joseph Proudhon’s written output is typically characterized as being either brilliantly syncretic or a chaotic jumble of contradictions, depending on the evaluator’s tastes and political-theoretic proclivities. In this section we apply the tools we’ve used throughout this section to evaluate the veracity of these two views, to compare the trajectory of his thought with that of Marx’s, and to then draw a set of conjectural hypotheses regarding how these results can shed some light on why Marx’s thought “won out” over Proudhon’s in terms of how strongly they influenced subsequent European socialist discourse.

Works such as [419] and [196], which attempt to organize Proudhon’s thought into a coherent set of principles, typically still discuss the challenges inherent in needing to “de-Hegelianize” much of his writing. As [196] describes, Proudhon’s attempts to apply Hegel’s

dialectical method to his subject matter often lapsed into exercises in forcing the keywords of the subject to fit into a neat “thesis-antithesis-synthesis” equation.

Marx, for example, attacks Proudhon on precisely this point in his letter to Pavel Annenkov criticizing the former’s *Système des contradictions économiques*³⁴: “For him, the solution of present-day problems does not consist in public action but in the dialectical rotations of his brain.” More bluntly, he accuses Proudhon of “confus[ing] ideas and things,” “indulg[ing] in feeble Hegelianism in order to set himself up as an esprit fort,” and thus tricking his audience via “pseudo-Hegelian sleight-of-hand”. “In a word, it is Hegelian trash,” he concludes.

[196] provides a much more charitable interpretation, positing essentially that although the “de-Hegelianization” of portions of Proudhon’s thought can be tedious, the benefits outweigh the costs. The tripartite Hegelian schema, Hoffman argues, provided a structure through which Proudhon was able to organize and communicate his ideas more straightforwardly than he otherwise would have, and (most relevant for the purposes of this work) made it easier for these ideas to travel across the continent. While the German socialist movement was rooted in Hegelian thought and rhetoric, and literate British socialists had been able to imbibe Hegelian ideas by way of Thomas Carlyle³⁵, the French socialist movement had been almost recalcitrant in their rejection of Hegelianism, as the Catholic socialists who predominated the movement were skeptical of its perceived atheism.

In the following plot, however, we see that indeed over the course of his entire adult life Proudhon oscillated between employing Hegelian rhetoric and concepts more so and less so, with no clear pattern of him “coming down on” one side or the other.

³⁴The contents of this letter provided the basis for Marx’s 1847 response, *Misère de Philosophie*, a play on the subtitle of Proudhon’s work, *Philosophie de misère*.

³⁵

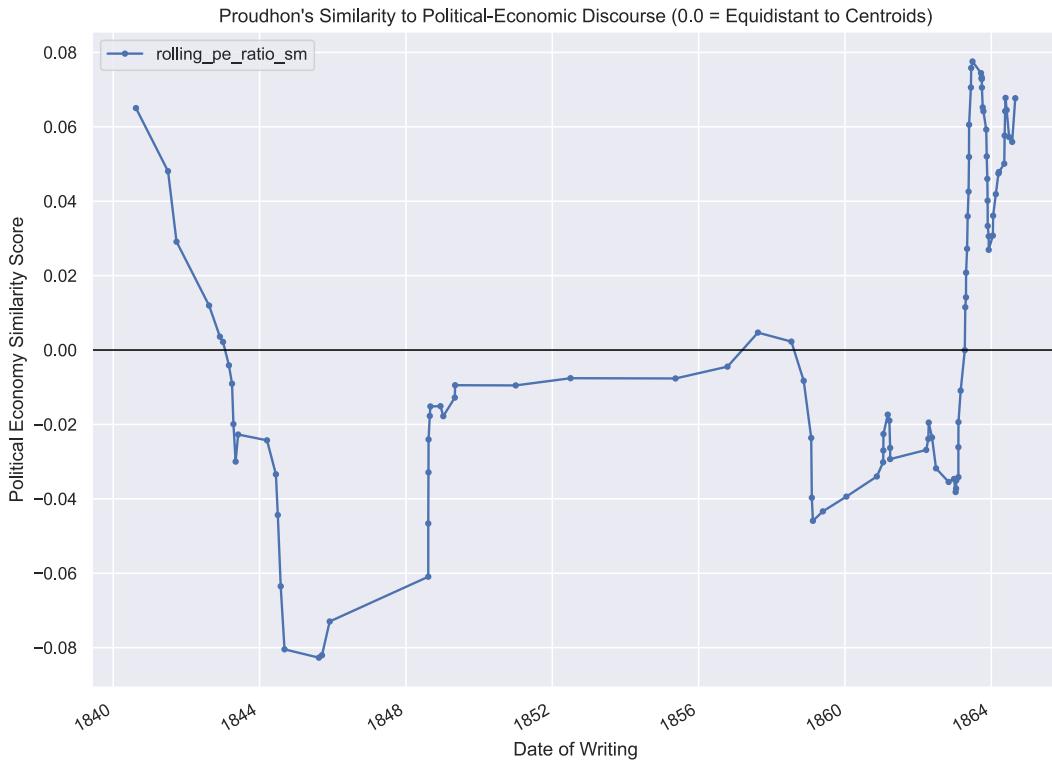


Figure 2.3.7: Proudhon’s PE Scores over the course of his lifetime

2.3.5.2 Marx vs. Lassalle

Unlike in the case of Bakunin (discussed above, in Section 2.3.5), we do in fact have a large enough corpus of Lassalle’s writings to perform a diachronic comparison of his and Marx’s trajectory through ideological space across the span of their lives. We also give the caveat, however, that (as discussed in Section 2.3.2.5) much of Lassalle’s time from the defeat of the 1848 Revolutions until the founding of the ADAV in 1863 was spent fighting a series of protracted legal battles: at first to secure his own release from prison, and then to ensure that the familial inheritance of his lifelong confidante Sophie von Hatzfeldt would not be usurped by other bitter rivals within her extended family.

Thus, as can be seen in Figure 2.3.8, we have a very limited amount of textual evidence

from which to infer his ideological positions during the 1850s. We posit that the lack of data from this decade is not fatal, though, given that our interest in Lassalle's writings is only with respect to those of *Marx*, whose correspondence with Lassalle (as seen in Figure 2.3.9 began in earnest in 1856 and had mostly ended by 1860. With this in mind, we analyze Lassalle's trajectory not so much as a continuous path (like we did in the previous section) but rather with an eye towards whether or not a discontinuity is observed between his pre- and post-corresponding-with-Marx writings.

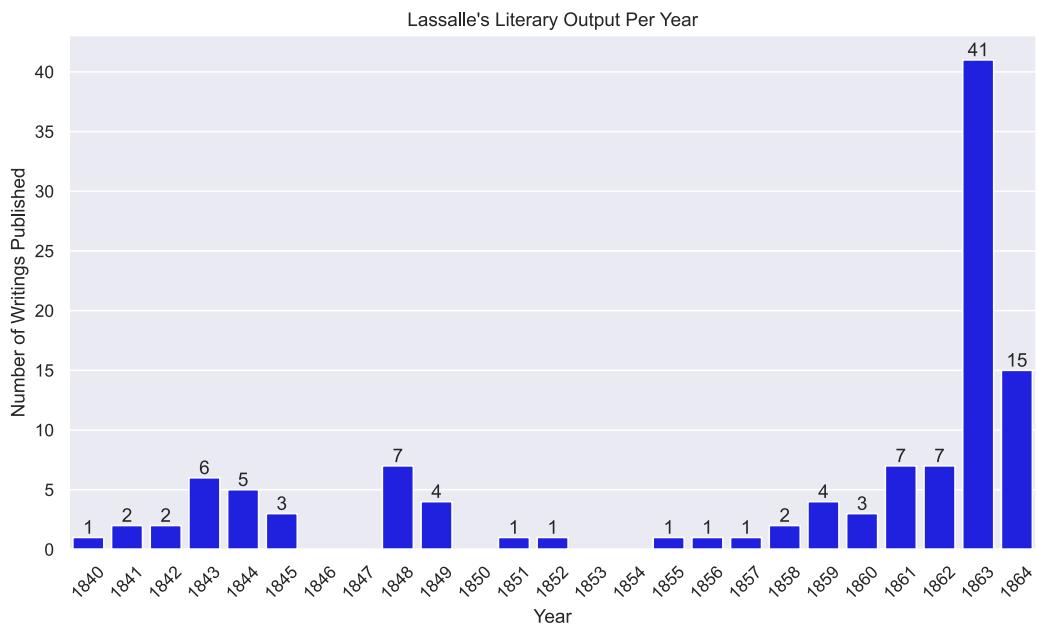


Figure 2.3.8: Lassalle's yearly literary output, 1840–1864.

2.4 Conclusion

Modern scholarship on the history of political thought, and especially the questions of intellectual influence and the locutionary impact of a thinker's interventions with respect to a broader discourse, have given rise to a rich body of work stressing the importance of formerly non-canonical thinkers—"major" and "minor" interlocutors—for deepening our understanding of a given text. In this work we have shown how this type of context-inclusive

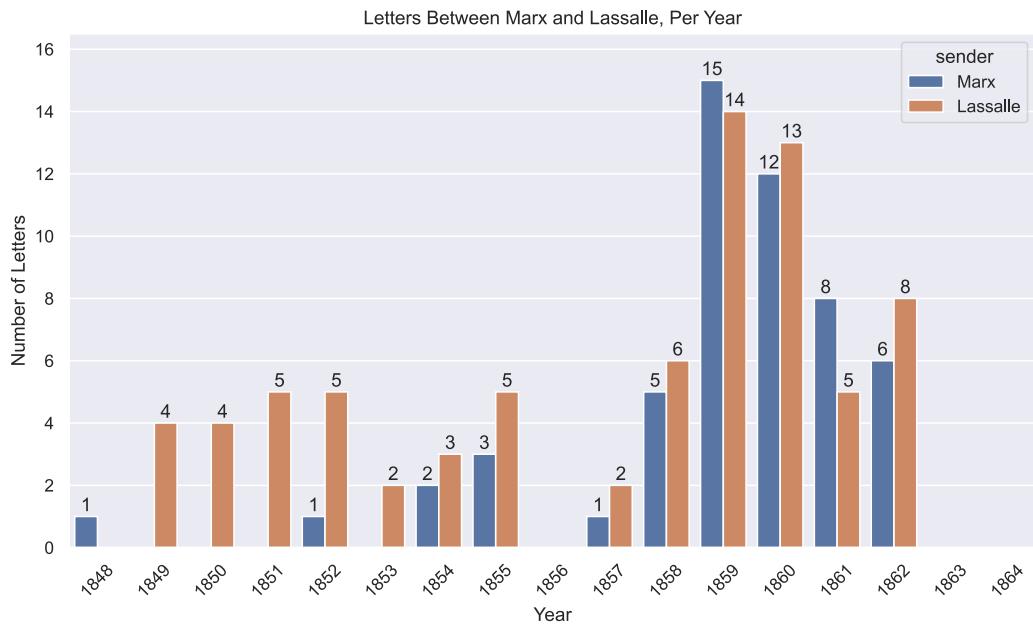


Figure 2.3.9: The volume of correspondence between Marx and Lassalle, per year. Letters from Marx to Lassalle are tabulated based on *MECW* Vols. 38–41. Letters from Lassalle to Marx are tabulated based on *Ferdinand Lassalle. Nachgelassene Briefe und Schriften. Herausgegeben von Gustav Mayer*, Vol III: *Der Briefwechsel zwischen Lassalle und Marx, nebst Briefen von Friedrich Engels und Jenny Marx an Lassalle und von Karl Marx an Gräfin Sophie Hatzfeldt.* ([238]).

analysis, though it typically expands the necessary amount of reading beyond the limits of individual human capabilities, can be brought back into the realm of possibility with the aid of modern computational-linguistic tools. We have also highlighted, however, the crucial domain expertise and interpretive skills which are still required of a researcher or team of researchers in order to carry out such a computer-aided study successfully. This “outsourcing” of certain aspects of a study to computational tools can, in fact, have pernicious consequences, drastically amplifying the risk of drawing invalid inferences if hidden assumptions and seemingly-inconsequential methodological choices are not interrogated with a critical eye.

An additional consideration must therefore be kept in mind when determining whether or not to employ the computational methods discussed here in an intellectual-historiographic

endeavor, namely, that of the diminishing returns from a wider and wider expansion of the set of texts being analyzed. Although these methods can enhance the replicability and verifiability of a given study, the key contribution which we have emphasized is the ability for these methods to vastly expand the contextual scope of a study—i.e., how many additional texts are taken into account when deriving our conclusions about a given text or discourse of interest. It may in fact be the case, however, that a given author or text *did* intervene in a discourse which was bounded or insulated enough that it remains amenable to standard non-computationally-aided study.

As Leo Strauss' *Persecution and the Art of Writing* brought to the fore of political-philosophical thought, for instance, an author may purposefully restrict their interlocutors to a select few individuals out of fear of censorship or the potential consequences of their views being publicly revealed. Indeed, in the recently-published first volume of his thoroughgoing biography of Marx himself, Michael Heinrich discusses the impact of Reimarus' *Apologie oder Schutzschrift für die vernünftigen Verehrer Gottes* on Marx's early thought (and on 19th-century German philosophy more broadly), despite the fact that it was only ever read by Reimarus' closest friends and never published in his lifetime. In Cambridge School analyses such as ours where the aim is to ascertain what an author was attempting to do with a given text, instances like these where its ideas become influential despite being written and distributed under persecution present a more challenging case, requiring detailed study of a small set of extant material rather than a wider computational study of a broad public discourse, like ours.

More commonly, e.g. for European texts of the Middle Ages up through the Renaissance, it may actually be the case that a thinker wrote with a small select audience in mind, given the rarity of both literacy and access to printing presses (not to mention the financial resources required to fund a widely-distributed publication). Even into the era of the French Enlightenment, many texts which we now consider to be epochal or canonical were originally only addressed to and read by a small set of close confidantes. Indeed, [161] describes in

detail how pre-Revolutionary French *salonnières* discussed and debated their ideas in tightly-knit, insular communities wherein “reading one’s manuscripts aloud in salons could be an alternative to publication,” such that “there were manuscripts that were read in or circulated through salons and never published, such as Gentil-Bernard’s ‘Art d’Aimer,’ which went the rounds for years, and Guibert’s ‘Eloge du Chancelier de l’Hospital’” (p. 147; see also [87]). In cases like these with an ostensibly bounded contextual scope, a “classical” non-computational approach (such as that of [372] and [373], [326], or [27]) may be the better option, in terms of eliminating concerns that the computational tools may miss important contextual details or collapse important distinctions in word usage³⁶.

³⁶Cf., however, [35], which illustrates how even the early 16th-century spread of Martin Luther’s ideas involved a vast network of interlocutors: correspondents, former students, and theological opponents spread across the entirety of present-day Germany and beyond.

Chapter 2: Appendix

2.A Corpus Construction

The corpus is divided into 11 different groups of texts – 5 “primary” corpora analyzed to track Marx’s thought over time with respect to the broader socialist movement, and 6 “control” corpora used for robustness tests.

2.A.1 Early Marx

We define the “early Marx” to be the period of Marx’s life before he had avowedly committed himself to the study of political economy as his central task – namely, the period after the 1848 Revolutions had been crushed and he found himself in exile in London, at which point he obtained a membership card for the library of the London Museum and began his “deep dive” into political economy.

2.A.2 Late Marx

Given the Early Marx/Late Marx split defined in the previous section, the following texts are examples of texts categorized under “Late Marx”:

1. *Grundrisse* (1859-1862 Manuskripte)
2. *Theorien des Mehrwert* (Theories of Surplus Value) (1864-1866 Manuskripte)
3. *Kapital, Vol. I*
4. *Kapital, Vol. II*
5. *Kapital, Vol. III*
6. *Das Bürgerkrieg in Frankreich*

2.A.3 Early Socialist Texts

Since we want to track changes in Marx’s thought *with respect to* the broader socialist discourse into which he aimed to intervene, we use the same split point as with the Early Marx/Late Marx texts: the downfall of the Revolutions of 1848. Under this definition, the texts classified as “early socialist” are as follows:

1. François-Noël Babeuf (via Filippo Buonarroti)
2. Louis Blanc, *Geschichte*

3. Louis-Auguste Blanqui
4. J. F. Bray
5. Etienne Cabet
6. Théodore Dézamy
7. Barthélémy-Prosper Enfantin
8. Charles Fourier
9. Moses Hess
10. Robert Owen, *New Moral World*
11. Pierre-Joseph Proudhon
12. Olinde Rodrigues
13. Henri de Saint-Simon
14. Lorenz von Stein
15. Wilhelm Weitling

2.A.4 Late Socialist Texts

Using the definition described in the previous section, the authors whose works are classified as “late socialist” are as follows:

1. Mikhail Bakunin
2. August Bebel
3. Eduard Bernstein
4. Karl Blind
5. Karl Grün
6. Alexander Herzen
7. Friedrich Lange
8. Ferdinand Lassalle
9. Wilhelm Liebknecht
10. Prosper-Olivier Lissagaray
11. Georgei Plekhanov

12. Johann Karl Rodbertus
13. Konrad Schramm
14. Karl Vogt

2.A.5 Hegelian Texts

1. Hegel
2. Bruno Bauer
3. Edgar Bauer
4. August Cieszkowski
5. Arnold Ruge
6. Max Stirner
7. D. F. Strauss, *Das Leben Jesu*
8. Ludwig Feuerbach

2.A.6 Political-Economic Texts

Since these are not being tracked over time, but rather are being used to place the texts of Marx and the socialist movement on a Hegel-vs-Political-Economy spectrum, these works span the period from 1776 to 1876. The two key texts for Part I, however, are:

1. David Ricardo, *Principles of Political Economy and Taxation* (1819)
2. Adam Smith, *Wealth of Nations* (1776)

A sampling of additional key political-economic authors whose works are included in the corpus:

1. Frederic Bastiat
2. Henry Carey
3. Thomas Hodgskin
4. William Jevons
5. Richard Jones
6. Thomas Joplin
7. Friedrich List
8. James Ramsay MacCulloch

9. T. R. Malthus
10. Karl Menger
11. John Stuart Mill
12. H. F. Osiander
13. William Petty
14. François Quesnay
15. Piercy Ravenstone
16. Jean-Baptiste Say
17. Nassau William Senior
18. J.-C.-L. Simonde de Sismondi
19. James Steuart
20. H. F. von Storch
21. Robert Torrens
22. François Villegardelle

Lastly, prominent political-economic periodicals like *The Economist* and *Westminster Review* are included for the relevant periods.

2.A.7 Classical Literature

This and the remaining categories were created as “control groups”, and thus span across the 17th, 18th, and 19th centuries.

1. Dante
2. Goethe, *Faust*
3. G. E. Lessing
4. Homer
5. Lucretius
6. Shakespeare

2.A.8 Contemporary Literature

1. Ferdinand Freiligrath
2. Heinrich Heine
3. Georg Herwegh
4. Victor Hugo
5. Eugène Sue

2.A.9 Classical Philosophy

This category includes, for example, the Enlightenment *philosophes* who probably most influenced Marx's thought in the second-order sense, by influencing radicals of the French Revolution like Babeuf who subsequently influenced the 19th century European socialist movement. It also includes early German philosophers, mostly contemporaneous to Hegel, like Fichte and Schelling, as well as truly classical philosophers like Epicurus and Democritus (the two subjects of Marx's doctoral dissertation).

1. Aristotle
2. Cicero
3. Democritus
4. Antoine Destutt de Tracy
5. Denis Diderot
6. Epicurus
7. J. G. Fichte
8. J. G. Herder
9. Baron d'Holbach
10. David Hume
11. Immanuel Kant
12. John Locke
13. Baron de Montesquieu
14. Plato
15. H. S. Reimarus
16. Jean-Jacques Rousseau

17. F. W. J. Schelling

18. Benedict de Spinoza

2.A.10 Contemporary Philosophy

Philosophers writing around the same time as Marx, but not as part of the socialist movement. This includes both politically-engaged writers, like Antoine-Elisée Cherbuliez and Alexis de Tocqueville, and ostensibly “apolitical” writers like Charles Augustin Sainte-Beuve.

1. Benjamin Franklin
2. Giuseppe Mazzini
3. Alexis de Tocqueville

2.A.11 General History

A large, probably under-analyzed chunk of Marx’s reading was on history, especially histories of Rome and on the feudal origins of the contemporary European societies whose political and economic systems he was critiquing³⁷

1. Gustav von Gülich
2. John Lubbock
3. Henry Sumner Maine
4. G. L. von Maurer
5. Lewis Henry Morgan
6. J. B. Phear

2.A.12 Natural Sciences

Much (probably too much) ink has been spilled on Marx’s relationship to natural scientists, especially Charles Darwin. Though peripheral to our concerns in this work, this category was constructed as an additional control group, with texts such as:

1. Charles Babbage, *On the Economy of Machinery and Manufactures* (1832)
2. Charles Darwin, *The Origin of Species* (1859)
3. Andrew Ure, *The Philosophy of Manufactures* (1835)

³⁷Though, as argued by e.g. Kevin Anderson, towards the end of his life he began reading much more deeply on societies outside the “core” developed societies of Europe, especially India, Indonesia (Java), and Russia.

2.A.13 Miscellaneous Texts

There exist several texts which can be identified as influential on Marx's thought despite not fitting naturally into any of the previous categories: for example, the Lexicons, parliamentary Blue Books, and statistical compendia which he cited throughout his journalistic and political-economic writings.

1. Lexikon
2. Blue Books
3. Russian statistical compendia

2.B Discursive Subspace Construction

Given the subcorpora defined in the previous section, we utilized the following procedures to generate a set of terms, each with a corresponding importance score (used for weighting the vectors in the embedding spaces), comprising that subcorpora's "induced" discursive subspace within the larger embedding space:

- 2.B.1 Two-Class Comparison via Relative Frequencies
- 2.B.2 Two-Class Comparison via Machine Learning
- 2.B.3 Multi-Class Comparison via cTF-IDF

2.C Robustness Checks

- 2.C.1 Document-Level Embeddings via Longformer
Longformer [40].

2.D Datasets

2.D.1 Data Summary: Marx's Reading

A dataset of every book, article, or pamphlet Marx is known have read ($N \approx 1800$), as scraped from a variety of sources:

- *MEGA²* Abteilung IV, containing 31 volumes of Marx's and Engels' notes and excerpts, plus a volume (IV/32) listing every book known to have existed in their respective personal libraries.
- The IISH's listing of Marx's and Engels' notebooks, which comes out to 168 notebooks total, some of which have yet to be published in volumes of *MEGA²* Abteilung IV. This listing is available via the IISH website, at <https://search.iisg.amsterdam/Record/ARCH00860/ArchiveContentList#A072e534c62>
- [349], [350], [351], and [352]

- Additional summary information given in the published volumes of *MEGA*¹.

The full dataset is available at <https://airtable.com/shrDmaEA4gKDB2n2>.

Reading Notebooks Sample

As a fairly representative example, *MEGA*¹ I/3, gives the following information on Marx's Parisian excerpt notebooks of Oct 1843–1844 (Described on pages 411–416 of the volume):

1. Pierre le Pesant de BOISGUILLEBERT, *Le détail de la France, la cause de la diminution de ses biens, et la facilité du remède*. In dem Sammelwerk: *Économistes financiers du XVIIIe siècle. Herausgegeben und erläutert von Eugène Daire*. Paris 1843. p. 171–266.
Heft VIII. 4½ S. — 38 kurze und mittlere Exzerpte, größerenteils französisch.
(Notebook VIII. 4½ pages. — 38 short and medium excerpts, mostly in French.)
(Reproduced in *MEGA*¹ I/3, 563–568.)
2. Pierre le Pesant de BOISGUILLEBERT, *Dissertation sur la nature des richesses, de l'argent et des tributs*. In demselben Sammelwerk, p. 394–424.
Heft VIII. 10¼ S. — 50 kurze und mittlere Exzerpte, größerenteils französisch — Von Marx: 1 Glosse über Geld und Wert; ferner 1 größere Glosse über Überproduktion.
(Notebook VIII. 10¼ pages. — 50 short and medium excerpts, mostly in French — From Marx: 1 gloss on money and value and 1 major gloss on overproduction.)
(Reproduced in *MEGA*¹ I/3, 568–579.)
3. Pierre le Pesant de BOISGUILLEBERT, *Traité de la nature, culture, commerce et intérêt des grains*. In demselben Sammelwerk, p. 352–393.
Heft VIII. 4 S. — 38 kurze und mittlere Exzerpte, größerenteils französisch.
(Notebook VIII. 4 pages. — 38 short and medium excerpts, mostly in French)
(Reproduced in *MEGA*¹ I/3, 579–583.)
4. Eugene BURET, *De la misère des classes laborieuses en Angleterre et en France*. T. I–II. Paris 1840. VI, 432 p. 492 p.
Heft IX. 24 S. — 41 teils mittlere, teils lange Auszüge, umfassend T. I, deutsch, mit nur wenigen wörtlichen französischen Exzerpten. — Von Marx: 2–3 kleine Zwischenbemerkungen.
(Notebook IX. 24 pages. — 41 partly medium, partly long excerpts, all from T. I, in German, with only a few verbatim French excerpts. — From Marx: 2–3 small interim remarks.)
5. A.-L.-C. DESTUTT DE TRACY, *Éléments d'idéologie. IVe et Ve parties. Traité de la volonté et de ses effets*. Paris 1826. XII, IV, 401 p.
Heft V. 3 S. — Ein längeres Excerpt, bestehend aus 29 Teilstücken aus der IVe partie, teils französisch, teils deutsch; ein kürzeres Excerpt vom Schluß (Extrait raisonné) der Ve partie, deutsch.

(Notebook V. 3 pages. — A longer excerpt, consisting of 29 quotations from Part IV, partly French, partly German; A shorter excerpt from the conclusion (Extrait raisonné) of Part V, German.)

(Reproduced in *MEGA¹* I/3, 560–563.)

6. Friedrich ENGELS, *Umrissie zu einer Kritik der Nationalökonomie*. In: *Deutsch-Französische Jahrbücher* 1844. p. 86–114.

Heft V. ½ S. (auf losem Blatt eingefügt). — Ein mittlerer und em kürzerer Auszug, deutsch.

(Notebook V. ½ page. (Inserted on loose sheet). — A medium and a short excerpt, German.)

(Reproduced in *MEGA¹* I/3, 437.)

7. James LAUDERDALE. *Recherches sur la nature et l'origine de la richesse publique. Traduit par E. Lagentie de Lavaisse*. Paris 1808. XXVII, 344 p.

Heft VI. 16 S. — 87 größtenteils mittlere Exzerpte, das ganze Werk (ohne Supplément) umfassend, teils französisch, teils deutsch.

(Notebook VI. 16 pages. — 87 mostly medium excerpts, covering the whole work (without supplement), partly in French, partly in German.)

8. Jean LAW, *Considérations sur le numéraire et le commerce*. In dem Sammelwerk: *Économistes financiers du XVIIIe siecle*. Herausgegeben und erläutert von Eugène Daire. Paris 1843. p. 465–548.

Heft VIII. 1 S. — 9 kleinere Auszüge aus Chap. I und II, größtenteils deutsch.

(Notebook VIII. 1 page. — 9 smaller excerpts from Chap. I and II, mostly German.)

9. R. LEVASSEUR (DE LA SARTHE), *Ex-Conventionnel. Mémoires*. T. I–II. Paris 1829. T. III—IV. Paris 1831, 392 p. 386 p. 352 p. 377 p.

Heft III. 5 S. — 43 meist kurze Exzerpte aus T. I, französisch, auf der linken Spalte des Manuskripts; hierzu auf der rechten Spalte ein Art Konspekt, deutsch.

(Notebook III. 5 pages. — 43 mostly short excerpts from T. I, French, in the left column of the manuscript; on this in the right column ein Art Konspekt, German.)

(Reproduced in *MEGA¹* I/3, 417–434.)

10. Friedrich LIST, *Das nationale System der politischen Ökonomie. 1. Band: Der Internationale Handel, die Handelspolitik und der deutsche Zollverein*. Stuttgart u. Tübingen 1841. LXVIII, 589 p.

Heft VII. 17 S. (halbbrüchig). — 42 zumeist mittlere und längere Exzerpte aus dem 1. und 2. Buch, deutsch. — Von Marx: Kleine Glosse über die Listsche Werttheorie.

(Notebook VII. 17 pages. (Half-broken). — 42 mostly medium and long excerpts from the 1st and 2nd book, in German. — From Marx: Small gloss on List's theory of value.)

11. John Ramsay MACCULLOCH, *Discours sur l'origine, les progrès, les objets particuliers et l'importance de l'économie politique*. Traduit de l'anglois par G. Prevost. Genève et Paris 1825. XVI, 204 p.

Heft V. 9 S. — 41 kurze und mittlere Exzerpte aus dem Hauptteil und den Réflexions du traducteur sur le système de Ricardo. — Von Marx: 3 kleine Bemerkungen über Grundeigentum, Ricardosche Schule, Preis und Produktionskosten, ferner 1 Ausführung über Produktionskosten und Preis und 1 Zusammenfassung über Profit.

(Notebook V. 9 pages. — 41 short and medium excerpts from the main part and the reflections of the translator of Ricardo's system. — From Marx: 3 small remarks on real estate, Ricardo's school, price and production costs, also 1 discussion of cost and price and 1 summary of profit.)

(Reproduced in *MEGA¹* I/3, 550–560.)

12. James MILL, *Elements d'économie politique*. Traduit par J. T. Parisot. Paris 1823. VII, 318 p.

Heft IV. 17 S. — 52 meist kurze und mittlere Exzerpte, in dichter Folge den ganzen Band bis auf die zweite Hälfte von Chap. IV umfassend, größtenteils deutsch. — Von Marx: 1 längere Ausführung über Geld, Kreditsystem, Austausch, Gemeinwesen, Privateigentum, Tausch, Preis, Arbeit; ferner 1 längere Ausführung über Austausch auf der Basis des Privaleigentums.

(Notebook IV. 17 pages. — 52 mostly short and medium excerpts, closely following the whole volume except for the second half of Chap. IV, mostly in German. — From Marx: 1 longer discussion of money, the credit system, exchange, community, private property, exchange, price, labor; also 1 longer discussion of exchange on the basis of private property)

(Reproduced in *MEGA¹* I/3, 520–547.)

Heft V. 6 S. — 10 zumeist mittlere Exzerpte aus der zweiten Hälfte von Chap. IV, sämtlich deutsch. — Von Marx: 1 kleine Glosse über Grundrente als einzige Steuerquelle.

(Notebook V. 6 pages. — 10 mostly medium-length excerpts from the second half of Chap. IV, all in German. — From Marx: 1 small gloss on land rent as the only source of tax.)

(Reproduced in *MEGA¹* I/3, 547–550.)

13. H. F. OSIANDER, *Enttäuschung des Publikums über die Interessen des Handels, der Industrie und der Landwirtschaft, oder Beleuchtung der Manufakturkraft Philosophie des Dr. List, nebst einem Gebet aus Utopien*. Tübingen 1842. X, 228 p.

Heft VII. Über die rechte Spalte von 12 S. verstreut, den Exzerpten aus Friedr. List gegenübergestellt, 13 längere u. kürzere Teilstücke, enlhaltend insgesamt 29 kurze Exzerpte, deutsch.

(Notebook VII. Scattered over the right column of 12 pages, the excerpts from Friedrich List are juxtaposed, in 13 longer and shorter sections, for a total of 29 short excerpts, in German.)

14. H. F. OSIANDER, *Über den Handelsverkehr der Völker*. Bd. I-II. Stuttgart 1840. X, 309 p. 318 p.
 Heft VII. 1 S. — 4 kürzere Exzerpte aus Kap. 1–3 des 1. Bandes, deutsch.
 (Notebook VII. 1 page. — 4 shorter excerpts from chap. 1–3 of Volume 1, in German.)
15. David RICARDO, *Des principes de l'économie politique et de l'impôt*. Traduit par F.-S. Constancio. Seconde édition. T. I-II. Paris 1835. XL, 378 p. 328 p.
 Heft IV. 17 S. — 53 meist kurze und mittlere Exzerpte, umfassend T. I, teils deutsch, teils französisch; 27 kurze und mittlere Exzerpte, T. II umfassend, größtenteils deutsch. — Von Marx: Etwa 15 kleine Bemerkungen; ferner 1 Glossen über Konkurrenz der Kapitalien, 1 Glossen über revenu brut et net und die Infamie der Nationalökonomie, 1 Glossen über Zynismus Ricardos und Verwendung der Kapitalien.
 (Notebook IV. 17 pages. — 53 mostly short and medium excerpts from T. I, partly in German, partly in French; 27 short and medium comprehensive excerpts from T. II, mostly in German. — From Marx: About 15 small remarks; 1 gloss on competition of capital, 1 gloss on gross and net income and the infamy of economics, 1 gloss on Ricardo's cynicism and the use of capital.) (Reproduced in MEGA¹ I/3, 493–519.)
 Heft VII. 1 S. — Ein längeres Excerpt aus T. II, Chap. XXVII (De la monnaie et des banques), durchaus französisch (außer dem letzten Satz).
 (Notebook VII. 1 page. — A longer excerpt from T. II, Chap. XXVII (De la monnaie et des banques), entirely in French (except for the last sentence).)
16. Jean-Baptiste SAY, *Traité d'économie politique*, Troisième édition. T. I-II. Paris 1817. LXXIX, 452 p. 486 p.
 Heft I. 21 S. — 218 kurze Exzerpte, hiervon: 86 Stücke aus T. I, fast den ganzen Band umfassend, größtenteils französisch; 132 Stücke aus T. II, fast den ganzen Band umfassend, ausnahmslos französisch. — Von Marx: 1 kleine Glossen über Stellung der Nationalökonomie zum Privateigentum und über Reichtum.
 (Notebook I. 21 pages. — 218 short excerpts: 86 from T. I, covering nearly the entire volume, mostly in French; 132 from T. II, also covering nearly the entire volume, all in French. — From Marx: 1 small gloss on the perspective of economics on private property and on wealth.)
 (Reproduced in MEGA¹ I/3, 437–455.)
17. Jean-Baptiste SAY, *Cours complet d'économie politique pratique*. Troisième édition. Bruxelles 1836. XIII, 746 p.
 Heft I. ¼ S. — 3 kurze Exzerpte aus den *Considérations générales*, französisch.
 (Notebook I. ¼ page. — 3 short excerpts from the *Considérations générales*, in French.)
 (Reproduced in MEGA¹ I/3, 455.)
18. Carl Wolfgang Christoph SCHÜZ, *Grundsätze der National-Ökonomie*. Tübingen 1843. XVI, 448 p.

Heft VII. 1 S. — 14 kurze Exzerpte aus dem größten Teil des Bandes, deutsch.
(Notebook VII. 1 page. — 14 short excerpts from most of the volume, in German.)

19. Frédéric SKARBEK, *Théories des richesses sociales*. T. I-II. Paris 1829. 352 p. 324 p.
Heft I. 2 $\frac{1}{4}$ S. — 24 kurze Exzerpte aus T. I, Introduction, livre I und II, sämtlich französisch.
(Notebook I. 2 $\frac{1}{4}$ pages. — 24 short excerpts from T. I, the Introduction, books I and II, all in French.)
(Reproduced in MEGA¹ I/3, 455–456.)
20. Adam SMITH, *Recherches sur la nature et les causes de la richesse des nations*. Traduction nouvelle par Germain Garnier. T. I–V. Paris 1802. CXXXVII, 368 p. 493 p. 564 p. 556 p. 588 p.
Heft II. 23 S. — 100 fast durchaus kürzere und mittlere Excerptstücke, teils französisch, teils deutsch, in folgender Anordnung: 57 Stücke aus T. 1. livre 1, Chap. I–VII; 9 kurze Stücke aus T. II, livre II, Chap. II; 18 Stücke aus T. I, von Chap. VIII bis Schluß; 15 Stücke aus T. II, von livre I, Chap. XI bis Schluß von livre II; 1 mittleres Excerpt aus T. I, livre I, Chap. X. — Von Marx: 1 kurze Glosse über Smiths Erklärung von Tausch und Arbeitsleistung; ferner mehrere kleine Zusammenfassungen.
(Notebook II. 23 pages. — 100 almost entirely short and medium-sized excerpts, some in French, some in German, in the following arrangement: 57 from T. 1. livre 1, Chap. I–VII; 9 short excerpts from T. II, livre II, Chap. II; 18 from T. I, from Chap. VIII to the end; 15 from T. II, livre I, Chap. XI to the end of livre II; 1 medium excerpt from T. I, livre I, Chap. X. — From Marx: 1 short gloss on Smith's explanation of exchange and labor; also several small summaries.)
(Reproduced in MEGA¹ I/3, 457–477.)
- Heft III. 11 S. — 73 kurze und mittlere Exzerpte, teils französisch, teils deutsch; hiervon: 30 Stücke aus T. II, von Beginn des livre III bis Bandschluß; 43 Stücke aus T. III, den ganzen Band umfassend (mit größeren Lücken). — Von Marx: kleine Zwischenbemerkung.
(Notebook III. 11 pages. — 73 short and medium excerpts, some in French, some in German; of these: 30 from T. II, from the beginning of livre III to the end of the volume; 43 from T. III, across the whole volume (with large gaps). — From Marx: small interim remark.)
(Reproduced in MEGA¹ I/3, 477–492.)
21. XENOPHON's von Athen Werke. Übersetzt von Adolph Heinrich Christian. Bd. IX: Von der Haushaltungskunst und Hiero oder Herrscherleben. Stuttgart 1828. p. 1041–1187. Bd. X: Staatsverfassung der Lacedämonier; Staatsverfassung der Athener etc. Stuttgart 1830. p. 1193 bis 1323. Bd. XI: Von den Staatseinkünften der Athener, etc. Stuttgart 1830. p. 1329–1458.

Heft IV. 1½ S. — 6 kurze Exzesse aus Staatsverfassung der Lacedämonier, 5 aus Staatsverfassung der Athener, 1 aus Staatseinkünfte der Athener, 4 aus Haushaltungskunst, 1 aus Hiero, sämtlich deutsch. Ohne Bezeichnung der benützten Ausgabe und ohne Seitenangaben.

(Notebook IV. 1½ pages. — 6 short excerpts from the state constitution of the Lacedämonier, 5 from the state constitution of the Athenians, 1 on state income of the Athenians, 4 on household arts, 1 from Hiero, all in German. No description of the edition used and no page numbers.)

2.D.2 Data Summary: Marx's Writing

A dataset with the full (German, if available, otherwise original-language) text of every known piece of writing of Marx, $N \approx 1200$ excluding letters, or $N \approx 5200$ including letters.

2.D.2.1 The Marx-Engels Digital Register

The dataset of $N \approx 1200$ writings (excluding letters) is available at <https://airtable.com/shrFKP7fp64su>

As a small sample to illustrate the contents of the *Digital Register*, the first and last 10 entries for Marx (by Register code) are reproduced below. Note that, for the sake of brevity, metadata on the texts' translations are only included for the first entry in which this information exists (**M1**) and omitted thereafter. Similarly, metadata on known reprints are only included for the first entry in which this information exists (**M3**) and omitted thereafter. “{Dubiosa & Apocrypha}” in the entry’s title denotes that the attribution of this text to Marx is dubious or has been shown to be erroneous. “[Untitled]” in the entry’s title denotes that the text was not given a title by Marx or by his editors, so that a title has been created by the Center for Socialist History for ease of reference.

First 10

- **M1:** *Abolitionist rallies in America.*
 - Original Language: German
 - Title in Original Language: *Abolitionistische Kundgebungen in Amerika*.
 - Date of Writing: 1862 Aug 22.
 - Date of Publication: Aug 30, in *Die Presse*. N/s.
 - Source: *MEW* Vol. 15, 530-533.
 - Translations: DR.ST/ME10c (CWUS) 201 (“Abolitionist demonstrations”); DR.ST/M79 (Pad/2) 215 (same title).
 - Additional Info: M’s article is largely devoted to reporting a speech by Wendell Phillips; within quotes he offers a mixture of quotations and summaries. DR.ST/ME10c solves the problem by leaving out the quote marks altogether; DR.ST/M79, by dropping M’s text for Phillips’ own words (from his book).
 - Digital Chronicle references: DC.62.42.

- **M2:** [This number canceled, by authors of original *Marx-Engels Register*]
- **M3:** *Achievements of the ministry.*
 - Original Language: English
 - Dated: 1853 Apr 12.
 - Published: Apr 27, in *NYDT*, #3753, p. 5ef, under the rubric “England.” Signed.
 - Source: *MECW* Vol. 12, 50.
 - Reprinted: %DR.ST/M80 (Pad/6)
 - Additional Info: In *MEW* Vol. 9, 49-55.
 - Digital Chronicle references: DC.53.15.
- **M4:** *The acquittal of Simon Bernard.* [Untitled] {Dubiosa & Apocrypha}
 - Original Language: English
 - Published: 1858 May 3, in *NYDT*, p. 4cde. Lead article; n/s.
 - Additional Info: Listed by Rubel; rejected by IML, not in *MEW*. This, as well as DR.M945, was clearly written in NY; in my opinion there is no possibility of M’s authorship.
- **M5:** *Address from the Working Men’s International Association to President Johnson. To Andrew Johnson, President of the United States.*
 - Original Language: English
 - Written: 1865 May 2-9; adopted by the GC May 9. Signed by the GC.
 - Dated: May 13.
 - Published: May 20, in the *Bee-Hive*; May 21, in *Reynolds’s Newspaper*; June 1, in *NYDT*.
 - Source: *GCFI* 1:294.
 - Additional Info: In *MEW* Vol. 16, 98-99. The name for the IWMA used in this title was soon dropped.
 - Digital Chronicle references: DC.65.32.
- **M6:** *Address of the British Federal Council to the sections, branches, affiliated societies and members.*
 - Original Language: English
 - Dated: 1872 Dec 23.
 - Published: Dec 31, as a flysheet, signed by the Council.
 - Additional Info: In *MEW* Vol. 18, 202-207.
 - Digital Chronicle references: DC.72.66.

- **M7:** “*Address to the National Labor Union of the United States*”
 - Original Language: English
 - Written: 1869, for the GC meeting of May 11; approved.
 - Dated: May 12. Signed by the GC.
 - Published: May M, as leaflet pubd by the GC; May 15, in the *Bee-Hive*; May 22, in German, in the *Demokratisches Wochenblatt*.
 - Source: *GCFI* 3:319 (text of leaflet, with signatures), 101 (*Bee-Hive* text).
 - Additional Info: In *MEW* Vol. 16, 355-357.
 - Digital Chronicle references: DC.69.30.
- **M8:** *The administration of India and political power in England.* [Untitled article] {Dubiosa & Apocrypha}
 - Original Language: English
 - Published: 1858 Apr 26, in *NYDT*, p. 4de. Lead article; n/s.
 - Additional Info: Listed by Rubel; rejected by IML; not in *MEW*.
- **M9:** *Advertisement duty—Russian movements—Denmark—The United States in Europe.*
 - Original Language: English
 - Dated: 1853 Aug 5.
 - Published: Aug 19, in *NYDT*, #3850, pp. 5f, 6ab, under the rubric “Great Britain.” Signed.
 - Source: *MECW* Vol. 12, 239.
 - Additional Info: In *MEW* Vol. 9, 245-251.
 - Digital Chronicle references: DC.53.30.
- **M10:** *Affairs continental and English.*
 - Original Language: English
 - Dated: 1853 Aug 23.
 - Published: Sep 5, in *NYDT*, #3864, p. 6bc. Signed.
 - Source: *MECW* Vol. 12, 277.
 - Additional Info: In *MEW* Vol. 9, 286-293.
 - Digital Chronicle references: DC.53.35.

Last 10

- M986: *War—Strikes—Dearth.*
 - Original Language: English
 - Dated: 1853 Nov 1.
 - Published: Nov 15, in *NYDT*, #3925, pp. 5f. 6ab, under the rubric “England.” Signed.
 - Source: *MECW* Vol. 12, 435.
 - Additional Info: In *MEW* Vol. 9, 447-455.
 - Digital Chronicle references: DC.53.44.
- M987: *Warning.*
 - Original Language: German
 - Title in Original Language: *Warnung.*
 - Dated: 1866 May 4.
 - Published: May 15, in the *Oberrheinischer Courier*; also in other German papers. Signed by M on behalf of the GC.
 - Source: *MEW* Vol. 16, 164-165; *GCFI* 1:335.
 - Digital Chronicle references: DC.66.23.
- M988: *The Washington cabinet and the western powers.*
 - Original Language: German
 - Title in Original Language: *Das Kabinett von Washington und die Westmächte.*
 - Written: 1861 Dec c.20.
 - Published: Dec 25, in *Die Presse*. N/s.
 - Source: *MEW* Vol. 15, 427-429.
 - Digital Chronicle references: DC.61.54.
- M989: *The western powers and Turkey—Symptoms of economic crisis.* [Untitled]
 - Original Language: English
 - Dated: 1853 Sep 23.
 - Published: Oct 7, in *NYDT*, #3892, p. 6abc. Signed.
 - Source: *MECW* Vol. 12, 318.
 - Additional Info: In *MEW* Vol. 9, 330-340. On the economic part, M used material sent by E.
 - Digital Chronicle references: DC.53.40.

- **M990:** *The western powers and Turkey—Imminent economic crisis—Railway construction in India.* [Untitled]
 - Original Language: English
 - Dated: 1853 Sep 20.
 - Published: Oct 4, in *NYDT*, #3889, pp. 5f, 6ab. Signed.
 - Source: *MECW* Vol. 12, 309.
 - Additional Info: In *MEW* Vol. 9, 321-329.
 - Digital Chronicle references: DC.53.40, DC.53.41.
- **M991:** *What has Italy gained?*
 - Original Language: English
 - Written: 1859 July c.12.
 - Published: July 27, in *NYDT*, #5697, p. 4ab. Lead article; N/s.
 - Source: *MECW* Vol. 16, 407.
 - Additional Info: In *MEW* Vol. 13, 417-419.
 - Digital Chronicle references: DC.59.52.
- **M992:** *Wild songs.*
 - Original Language: German
 - Title in Original Language: *Wilde Lieder. [Poems]*
 - Written: 1837 prob Feb to (at latest) Apr A, for the original versions. This was the overall title used on publication for two poems—“The Minstrel” [Der Spielmann] and “Love in the night” [Nachtliebe]—both of which were in DR.M663, q.v.
 - Published: 1841 Jan 23, in *Athenäum* (Berlin), no. 4, p. 59; text somewhat revised. Signed: K. Marx.
 - Source: *MEW* Vol. 40, 604-605; *MEGA¹* I/1.1, 147; *MEGA²* I/1, 768; all the foregoing presenting the pubd version. For the original version, see *MEGA¹* I/1.2, 9, 57; or *MEGA²* I/1, 626, 670.
 - Additional Info: These poems were the first things pubd by M, and were the only poems pubd by him.
 - Digital Chronicle references: DC.37.4; DC.41.4.
- **M993:** *Workers' distress in England.*
 - Original Language: German
 - Title in Original Language: *Die Arbeiternot in England.*
 - Written: 1862 Sep c.20.
 - Published: Sep 27, in *Die Presse*. N/s.

- Source: *MEW* Vol. 15, 544-547.
 - Digital Chronicle references: DC.62.49.
- **M994:** *A workers' inquiry.*
 - Original Language: French
 - Title in Original Language: Enquête ouvrière.
 - Written: 1880 Apr AB, in English (see note below).
 - Published: Apr 20, in French, in the *Revue Socialiste*; titled as at head; N/s.; Then reprinted separately, and circulated through France.
 - Source: DR.ST/M78 (Oeuvres) 1:1529.
 - Additional Info: In *MEW* Vol. 19, 230-237. The *MEW* version is transd from the English-language ms (which has not been pubd, as far as I know). It is not stated whether *MEW*'s title, "Fragebogen für Arbeiter" [Questionnaire for workers], is based on M's ms or on M's letter to Sorge of Nov 5, where he calls it a questionneur (questioner).
 - Digital Chronicle references: DC.80.13.
- **M995:** *Yet another word on "Bruno Bauer und die akademische Lehrfreiheit by Dr. O. F. Gruppe, Berlin, 1842."*
 - Original Language: German
 - Title in Original Language: *Noch ein Wort über "Bruno Bauer und die akademische Lehrfreiheit von Dr. O. F. Gruppe. Berlin 1842."*
 - Written: 1842 Sep A.
 - Published: Nov 16, in the *Deutsche Jahrbücher für Wissenschaft und Kunst*. Signed: K.M.
 - Source: *MEW* Vol. 40, 381-384; *MEGA*¹ I/1.1, 397.
 - Digital Chronicle references: DC.42.24, DC.42.31.

The additional Digital Register entries referenced by the records above are as follows:

- **M945:** *The Trial of Simon Bernard* [Untitled] {Dubiosa & Apocrypha}
 - Original Language: English
 - Published: 1858 Apr 30, in *NYDT*, p. 4cd. Lead article; N/s.
 - Additional Info: Listed by Rubel; rejected by IML, not in *MEW*. In my opinion, this is not by M; the case is similar to that of DR.M4, q.v.
- **ST/ME10c:** *The Civil War in the United States.* 3rd Ed. Ed by Richard Enmale. Int'l Pub, Citadel Pr., 1961. 334p.

- **ST/M78:** *Oeuvres. Economie.* Edition établie et anotée par Maximilien Rubel. Préface par François Perroux. (Bibliothèque de la Pléiade) 2v. Paris: Gallimard, 1965, 1968.
- **ST/M79:** *On America and the Civil War.* (Karl Marx Lib, 2). Arranged and ed, with an intro and a new trans, by Saul K. Padover. NY: McGraw-Hill, 1972. 298p.
- **ST/M80:** *On Education, Women, and Children.* (Karl Marx Lib, 6). Arranged and ed, with an intro and a new trans, by Saul K. Padover. NY: McGraw-Hill, 1975. 164p.
- **ST/21:** *The General Council of the First International...* (Documents of the First International). FLPH/Progress Publishers, n.d. [1963-1968?].
 - Five unnumbered volumes, issued by the IML, Moscow. Prefaces in each volume unsigned. In the *Register*, volume numbers have been assigned; following are the conferred volume numbers and the subtitles:
 - Vol. 1. ...1864-1866. *The London Conference 1865. Minutes.* FLPH, n.d. [1963?].
 - Vol. 2. ...1866-1868. *Minutes.* Progress Publishers, n.d.
 - Vol. 3. ...1868-1870. *Minutes.* Progress Publishers, n.d.
 - Vol. 4. ...1870-1871. *Minutes.* Progress Publishers, n.d.
 - Vol. 5. ...1871-1872. *Minutes.* Progress Publishers, n.d. [1968?]

And the abbreviations used throughout the above entries are as follows:

A (After a month, e.g., Sep A) The first quarter of the month

AB (After a month, e.g., Sep AB) The first half of a month

c. (In front of dates) Circa; approximately

CWUS *The Civil War in the United States*, Ed. Richard Enmale (DR.ST/ME10c)

FLPH Foreign Languages Publishing House (Moscow)

GC General Council (of the IWMA)

GCFI *General Council of the First International* (DR.ST/21)

IML *Institut für Marxismus-Leninismus* (Referring either to the *Institut Marksizma-Leninizma* in Moscow or the *Institut für Marxismus-Leninismus* in East Berlin, depending on context)

IWMA International Working Men's Association

N/s Not signed

NYDT *New York Daily Tribune*

Pad/*N* Saul K. Padover's *Karl Marx Library* series, volume *N*.

pubd Published

q.v. "On which, see"

ST (In record code, e.g., ST/M60) Sources and Translations

transd Translated

% Denotes that the source immediately following contains only a *partial* translation of the text of interest

2.D.3 Data Summary: Marx's Correspondence

A dataset of every known letter from or to Marx ($N \approx 5000$), available at <https://airtable.com/shrEbpkV>

2.D.4 Data Summary: Marx's References

A dataset of every reference to another work across all of Marx's writings ($N \approx 10000$), available at <https://airtable.com/shrhgCVgr2eAbySEK>.

References Sample

As a small sample of the references dataset, here are the first 10 and last 10 (in alphabetical order) of the 140 authors referenced by Marx, as listed in *Marx-Engels Werke (MEW)*, Volume 1:

1. Archibald Alison: *The principles of population, and their connection with human happiness.* Vol. 1-2. London 1840.
2. *Allgemeines Landrecht für die Preußischen Staaten.* Th. 2. Berlin 1806.
3. Aristotle: *Metaphysica.*
4. Aurelius Augustinus: *De civitate Dei.*
5. Francis Bacon: *De dignitate et augmentis scientiarum.* T. 1. Wirceburgi 1779.
6. Bruno Bauer
 - (a) *Die Fähigkeit der heutigen Juden und Christen, frei zu werden.* In: Einundzwanzig Bogen aus der Schweiz. Hrsg. von Georg Herwegh. Th. 1. Zürich und Winterthur 1843.
 - (b) *Die Judenfrage.* Braunschweig 1843.
 - (c) *Kritik der evangelischen Geschichte der Synoptiker.* Bd. 1-2. Leipzig 1841-1842. Bd. 3. Braunschweig 1842.

- (d) *Die Posaune des jüngsten Gerichts über Hegel den Atheisten und Antichristen. Ein Ultimatum.* Leipzig 1841.
7. Edgar Bauer: *Der Streit der Kritik mit Kirche und Staat.* Charlottenburg 1843.
8. Gustave de Beaumont: *Marie où l'esclavage aus Etats-Unis, tableau de moeurs américaines; l'uri des auteurs de l'œuvre intitulé: Du système pénitentiaire aux Etats-Unis.* T. 2. Paris 1835.
9. *Die Bibel.*
- (a) *Das Alte Testament.*
- i. 1. Buch Mose.
 - ii. Buch Josua.
 - iii. Hosea.
- (b) *Das Neue Testament.*
- i. Evangelium des Matthäus.
 - ii. Evangelium des Markus.
 - iii. Evangelium des Lukas.
 - iv. Evangelium des Johannes.
 - v. Apostelgeschichte des Lukas.
 - vi. Brief des Paulus an die Römer.
 - vii. I. Brief des Paulus an die Korinther.
10. William Blackstone: *Commentaries on the laws of England.* Vol. 1-4. London 1826.

Last 10

129. Virgil: *Aeneis.*
130. François-Marie Arouet de Voltaire
- (a) *La Bible enfin expliquée.*
- (b) *L'enfant prodigue.*
131. *Vorstellungen der Direction des Vereins an verschiedene Behörden.* In: Mittheilungen des Vereins zur Förderung der Weincultur an Mosel und Saar zu Trier. H. 4. Trier 1841.
132. John Wade
- (a) *British history.* London 1838.
- (b) *History of the middle and working classes; with a popular exposition of the economical and political principles.* London 1835.

133. Wilhelm Weitling
- (a) *Das Evangelium eines armen Sünders.* Bern 1845.
 - (b) *Garantien der Harmonie und Freiheit.* Vivis 1842.
134. Christoph Martin Wieland: *Der neue Amadis.*
135. J. Ch. F. Winkler: *Harfenklänge, bestehend in einer metrischen Uebersetzung und Erläuterung von Ein und fünfzig ausgewählten Psalmen, und in einer Auswahl von evangelischen Gedichten und Liedern, nebst einem Anhang, in welchem nachträglich noch einige Psalmen geliefert werden.* Bärmen 1838.
136. Friedrich Ludwig Wülfing
- (a) *Ein Heftchen wackerer Gesänge.* 1832.
 - (b) *Leier und Schwert oder Bienen, mit und ohne Stachel.* Barmen 1830.
 - (c) *Jugendblüthem.* Barmen 1830.
137. Heinrich Zoepfl: *Grundsaetze des allgemeinen und des constitutionell-monarchischen Staatsrechts, mit Rücksicht auf das gemeingültige Recht in Deutschland, nebst einem kurzen Abrisse des deutschen Bundesrechtes und den Grundgesetzen des deutschen Bundes als Anhang.* Heidelberg 1841.
138. [Vincenz Jakob von Zuccalmaglio]: *Montanus: Die Vorzeit der Länder Cleve-Mark, Jülich-Berg und Westphalen.* Bd. 1. 2. Aufl. Solingen und Gummersbach 1837. Bd. 2. Solingen 1839.

2.D.5 Data Summary: Marx-Engels Digital Glossary

A dataset of every referenced entity (people, organizations, locations, etc.) across all of Marx's writings, available at <https://airtable.com/shrVoS77J9BOJiDbF>.

2.D.6 Supplemental Datasets

2.D.6.1 Proudhon's Collected Works

The most frequently-referenced collection of Proudhon's works is known as the "Rivière edition":

Oeuvres complètes de P.-J. Proudhon, nouvelle édition, ed. C. Bouglé et H. Moysset (Paris: Marcel Rivière, 1923–1959), 15 vols. in 19, in-8°.

This collection³⁸ consists of 15 volumes published between 1923 and 1959, the contents of which are as follows:

³⁸Digitized versions of every volume, with the exception of the first part of Volume 1, are available on HathiTrust. Links to the individual volumes are given after the years of publication in the listing herein.

1. *Système des contradictions économiques, ou philosophie de la misère*, 2 vols., 1923. HathiTrust (Part 2 only)
2. *Idée générale de la révolution au XIXe siècle*, 1924. HathiTrust
3. *De la Capacité politique des classes ouvrières*, 1924. HathiTrust
4. *Candidature à la pension Suard. De la célébration du Dimanche. Qu'est-ce que la propriété?*, 1926. HathiTrust
5. *De la création de l'ordre dans l'humanité, ou principes d'organisation politique*, 1927. HathiTrust
6. *La Guerre et la paix, recherches sur le principe et la constitution du droit des gens*, 1927. HathiTrust
7. *Les Confessions d'un révolutionnaire pour servir à l'histoire de la révolution de février*, 1929. HathiTrust
8. *De la Justice dans la révolution et dans l'Eglise*, 4 vols., 1930. HathiTrust: Part 1, Part 2, Part 3, Part 4
9. *La Révolution sociale démontrée par le coup d'état du deux décembre. Projet d'exposition perpétuelle*, 1936. HathiTrust
10. *Deuxième Mémoire sur la propriété. Avertissement aux propriétaires. Programme révolutionnaire. Impôt sur le revenu. Le Droit au travail et le droit de propriété*, 1938. HathiTrust
11. *Du Principe de l'art et sa destination sociale. Galilée. Judith. La Pornocratie ou les femmes dans les temps modernes*, 1939. HathiTrust
12. *Philosophie du progrès. La Justice poursuivie par l'Eglise*, 1946. HathiTrust
13. *Contradictions politiques. Les Démocrates assermentés et les réfractaires. Lettre aux ouvriers en vue des élections de 1864. Si les traités de 1815 ont cessé d'exister?*, 1952. HathiTrust
14. *Du Principe fédératif. La Fédération et l'unité en Italie. Nouvelles Observations sur l'unité italienne. France et Rhin (fragments)*, 1959. HathiTrust
15. *Ecrits sur la religion*, 1959. HathiTrust

An earlier collection, which actually began publication while Proudhon was still actively writing in 1850 (with the final volume published in 1872), has also been digitized by the Bibliothèque Nationale de France. The scanned pages of all 26 volumes are available at <https://catalogue.bnf.fr/ark:/12148/cb31154797t>

2.D.6.2 Proudhon's *Carnets*

Proudhon kept meticulous records of every book, pamphlet, or newspaper article he read over the course of most of his life, typically along with excerpts and brief summaries of these works. Thus, with these records (digitized, though still in image format, thus requiring readers to parse Proudhon's often opaque handwriting), we can approximate whether it was Marx or Proudhon who first introduced certain ideas into the lexicon of European socialist thought. Proudhon's *carnets* are viewable in the form of raw manuscript pages coded NAF 18255 to NAF 18262 at the Bibliothèque Nationale de France, and digital scans of each page are available on the BnF's website, at <https://archivesetmanuscrits.bnf.fr/ark:/12148/cc7339n>.

Proudhon *Carnets* Sample

As an example of the contents of these *carnets*, here we reproduce the content indices for the 7 notebooks he kept in the year 1840 (*Cahiers XI–XVII*):

Cahier XI, Jan 1840

- 1-3 Réflexions prélim. sur le droit de propriété
- 3-4 Pellegrino Rossi, *Cours d'Écon.*
- 4-7 Jean-Jacques Rousseau, *Origines de l'Inégalité*
- 8-12 Jean-Baptiste Say, *Écon. polit.*
- 12-14 On Pellegrino Rossi and Jean-Jacques Rousseau
- 15-16 On Rossi Pinheiro-Ferreira
- 16-18 Victor Cousin, *Philos. de l'hist.*
- 18-24 Gustave Flourens, *Notice sur F. Cuvier*
- 24 Pellegrino Rossi, *Révolution*
- 24-34 Ancillon, *Mélanges*
- 34-35 Pellegrino Rossi, *Propriété, force, mariage, femmes*
- 35-37 Ancillon, *Mélanges*
- 37 Anne Robert Jacques Turgot, *Tom. 2 des Oeuvres complètes. Phil. de l'hist.*
- 38-39 Portets, *Cours de droit naturel*
- 39-45 Barchou de Penhoen, *Hist. de la phil. all. (Bonaparte)*
- 45-64 Victor Cousin, *Hist. de la phil. (1826) (beaucoup de choses pour mon livre)*

Cahier XII, Jan 1840

- 1-3 F. M. A. Voltaire, *Lettre de Ch. Gouju*
- 3-4 Marie Jean Antoine Nicolas Caritat, marquis de Condorcet, *Progrès de l'esprit humain*
- 4 On Property
- 7-12 Edgar Quinet, *Idées des hébreux* (idées sur la cosmogonie, de la mort, âme, etc.)
- 12-18 Jules Michelet, *Introduction à l'hist. univ.*
- 18-19 *Moniteur* de 1830, Révision de la charte
- 20-23 Conférences tenues au Conseil d'État, pour la discussion du Code civil
- 24-26 On Succession, marriage
- 26-31 Bergier, *Dict. Théol.* et notes de Boussuet, *Usure*
- 31-35 J.-B. Bossuet, *Usure*
- 35 Immanuel Kant, *Principes métaphysiques de morale*
- 42 Réflexions sur moi-même, 7 février 1840
- 42 Michel Chevalier, *Lettres sur l'Amérique du Nord*
- 43 Le *National* du 4 février, on Misère, vagabondage, Lamennais, Victoria, Thiers
- 44-52 Pothier, *Droit de propriété*
- 53 Toullier, *Tom V. De donation et testament*
- 54 *ibid.*, *Tom. VI. De l'objet et de la matière des contrats*

Cahier XIII, Feb 1840

- 1 Victor Cousin, *Cours* de 1828. Grand homme
- 3-7 Edgar Quinet, *Idées de Herder* (ses moeurs primitives)
- 8-12 Buckland, *Géologie, couronné par l'Institut.* (Prière de Kepler)
- 13-20 Toullier, *Prescription, présomption*, Dunod, *ibid.*
- 20-23 Charron, *Ambition, peuple*
- 23-25 Burnouf, *Introduct.* à la traduction de Tacite
- 25-27 Proudhon, *Traité des droits d'usufruit*
- 27-32 Lélut, *Qu'est-ce que la phrénologie?*

32-52 Garat, *Mémoires sur la vie de Suard*

53-56 Joseph F. X. Droz, *Art d'être heureux* (1811)

56-64 Beccaria, *Traité des débats et des peines*. Faire un syllogisme parfait

Cahier XIV, Nov. 1840

1-17 Beccaria (suite) *Illégitimité de la peine*

17-28 La Luzerne (Cardinal de), *Dissertation sur le prêt de commerce* (Pères cités)

29-44 Pastoret, *Législation de Moïse* (et autres)

45-60 C. G. Jouffroy, *Cours de Droit naturel* (âme, devoir, liberté, le *National*, Spinoza)

Cahier XV, Nov. 1840

1-39 Proudhon, Leçons de Blanqui, Wolowski, citations diverses et pensées journaux

35-36 Germain Garnier, *De la propriété*

40-43 *Moniteur*. 20 juin 1829, Galotti (extradition de)

43-50 *ibid.*, 21 juin-7 octobre, Liberté individuelle (proposition Roger sur la)

50-53 François Pierre Guillaume Guizot, *De la peine de mort*

53-56 Ortolan, *Le ministère public*

Cahier XVI, Nov. 1840

1-5 C. G. Jouffroy, *Cours de droit naturel*

6-52 P. J. B. Buchez, *Philosophie* (3 vol.)

Cahier XVII, Dec. 1840

1-10 P. J. B. Buchez, *Philosophie* (suite)

11-14 Troplong, *Prescription*

15-18 P. J. B. Buchez, *Philosophie* (suite)

18-25 Troplong, *Prescription* (suite)

25-28 Lerminier, *Histoire législ. comp.*

28-35 Lerminier, *Lettre phil. Phil. du droit.*

35-56 Laboulaye, *Hist. du droit*. Duel, femmes, religion, etc... Délits, peines

2.D.6.3 Collections of Lassalle's Works

2.D.6.3.1

Edited by Eduard Bernstein and published from 1919 to 1921. Links to the volumes on the Internet Archive are as follows:

- **Vol. I.** *Der italienische Krieg. Franz von Sickingen.* Internet Archive
- **Vol. II.** *Die Verfassungsreden. Das Arbeiterprogramm und die anschliessenden Verteidigungsreden.* Internet Archive
- **Vol. III.** *Die Agitation für den allgemeinen deutschen Arbeiterverein; Das Jahr 1863, Polemik.* Internet Archive
- **Vol. IV.** *Die Agitation für den allgemeinen deutschen Arbeiter-Verein; Das Jahr 1864, Aktenstücke.* Internet Archive
- **Vol. V.** *Lassalles ökonomisches Hauptwerk.* Internet Archive
- **Vol. VI.** *Philosophisch-literarische Streifzüge.* Internet Archive
- **Vols. VII–VIII.** *Die Philosophie Herakleitos des Dunklen von Ephesos.* 2 v. Internet Archive: Vol. VII, Vol. VIII
- **Vols. IX–XII.** *Das System der erworbenen Rechte.* 4 v. Internet Archive: Vol. IX, Vol. X, Vol. XI, Vol. XII

2.D.6.3.2

Edited by Gustav Mayer and published between 1921 and 1925. Links to the volumes on the Internet Archive are as follows:

- **Vol. I.** *Briefe von und an Lassalle bis 1848.* 1921, X-357 S. Internet Archive
- **Vol. II.** *Lassalles Briefwechsel von der Revolution 1848 bis zum Beginn seiner Arbeitseragitation.* 1923, VIII-28-302 S. Internet Archive
- **Vol. III.** *Der Briefwechsel zwischen Lassalle und Marx, nebst Briefen von Friedrich Engels und Jenny Marx an Lassalle und von Karl Marx an Gräfin Sophie Hatzfeldt.* 1922, XII-27-[1]-411 S. Internet Archive
- **Vol. IV.** *Lassalles Briefwechsel mit Gräfin Sophie Hatzfeldt.* 1924, XIII-[1]-33-[1]-408 S. Internet Archive
- **Vol. V.** *Lassalles Briefwechsel aus den Jahren seiner Arbeiteragitation 1862-1864.* 1925, X-45-[1]-368 S. Internet Archive
- **Vol. VI.** *Ferdinand Lassalle. Die Schriften des Nachlasses und der Briefwechsel mit Karl Rodbertus.* 1925, IX-[1]-451 S. Internet Archive

2.D.6.3.3

Edited by Eduard Bernstein and published between 1892 and 1893. The three volumes are available via HathiTrust here, and links to the individual volumes on the Internet Archive are as follows:

- **Vol. I.** 1892. Internet Archive
- **Vol. II.** 1893. Internet Archive
- **Vol. III.** 1893. Internet Archive

2.D.6.4 Andréas' Lassalle Bibliography

Bert Andréas' 1981 bibliography [18] provides an exhaustive listing of Lassalle's literary output available in any language up to the time of publication, which enabled us to compile digitized versions of the subset of all known German versions (original or in translation) of Lassalle's writings, used for the analysis in Section 2.3.5.2. As a sample of the information in this bibliography, the “base” entry (i.e., excluding the additional entries representing variants and translations of the original publication) for the first ten and last ten records are reproduced below:

2.D.6.4.1

- **A1.1:** *REISEBESCHREIBUNG VON MEINEM LIEBLINGSWINKEL BIS ZUR STUBENTOR*
 - N VI S. 6–10
 - Schulaufsatz vom August 1840
- **A2.1:** *[FERDINAND LASSALLES TAGEBUCH]*
 - Herausgegeben und mit einer Einleitung versehen van Paul Lindau. Breslau, Schlesische Buchdruckerei, Kunst- und Verlags-Anstalt vormals S. Schott-laender, 1891, in-16, 259 S.
 - Das Tagebuch wurde geführt von Januar 1840 bis zum Sommer 1841. Lindau hat den Text zuerst veröffentlicht in *Nord und Süd*, Bd. LVII, Heft 169–170. Zwei von ihm ausgelassene längere Eintragungen (von etwa Pfingsten und Sommer 1841) hat Gustav Mayer nach dem Manuskript veröffentlicht in N I, S. 54–63. Mayers Handexemplar obiger Ausgabe mit den Verbesserungen des von Lindau teilweise korrumptierten Textes ist jetzt im IISG.
 - Vgl. DR.L.B43 und DR.L.C170.
 - Archives: BA, FUB, IISG, IMLB, SUBD, SUBH
- **A3.1:** *ÜBER DIE ERKLÄRUNG DER HERREN KOLLOFF, SCHUSTER UND HAMBERG.*

- *Breslauer Zeitung*, 25. September 1841, Nr. 224, S. 1606.
 - N VI S. 31–33
 - Parteinahme für Heinrich Heine gegen Salomon Strauß, datiert vom 24. September 1841. Zugeschrieben von Gustav Mayer.
 - Vgl. DR.L.C552.
 - Archives: UBW
- **A4.1:** *ZUR ERKLÄRUNG DES HERRN DR. DAVIDSON IN NO. 222 DER LEIPZIGER ALLGEMEINEN ZEITUNG.*
 - *Bulletin des Leo Baeck Instituts*, Tel Aviv, 1966, Jahrg. IX, Nr. 36, S. 335–338.
 - über Rabbinatsstreitigkeiten in der Breslauer jüdischen Gemeinde. Der Artikel war für eine unbekannte Zeitung bestimmt, die ihn nicht aufnahm. Gustav Mayer hat das Manuskript kommentiert in DR.L.C557. Der Artikel wurde veröffentlicht zusammen mit DR.L.A9a und mit einem Kommentar von Alex Bein in DR.L.C106.
 - Archives: BA BM JNUL LR OCH
- **A5.1:** *WIE KONNTEN DIE ALTEN BEI IHREM AUSGEBILDETN RECHTSGEFÜHL DIE SKLAVEREI DULDEN?*
 - N VI S. 10–12
 - Schulaufsatz, den Gustav Mayer auf “1842/43” datiert.
- **A6.1:** *KANN DIE REALBILDUNG DIE KLASSISCHE BILDUNG ERSETZEN?*
 - N VI S. 12–16
 - Schulaufsatz, den Gustav Mayer auf “1842/43” datiert.
- **A7.1:** *STOIKER ODER EPIKUREER*
 - N VI S. 17–20
 - Schulaufsatz, den Gustav Mayer auf “1842/43” datiert.
- **A8.1:** *ANSPRACHE AN LESSINGS GEBURTSTAG*
 - N VI S. 20–23
 - Schulaufsatz, den Gustav Mayer auf “Januar 1842 (oder auch 1843)” datiert.
- **A9.1:** *DER VIELWISSE*
 - N VI S. 23–27
 - Schulaufsatz, den Gustav Mayer auf “1842/43” datiert.
- **A9a.1:** *[SPOTTGEDICHT AUF DEN JÜDISCHEN LEHR- UND LESEVEREIN IN BRESLAU]*

- *Bulletin des Leo Baeck Instituts*, Tel Aviv 1966, Jahrg. IX, Nr. 36, S. 338–341. Gustav Mayer zitiert einige Zeilen in DR.L.C557 und datiert das Gedicht auf “1843”. Das Gedicht wurde zusammen mit DR.L.A4 vollständig und mit einem Kommentar veröffentlicht von Alex Bein in DR.L.C106.
 - Archives: BA BM JNUL LBN LR OCH
- **A10.1:** *GRUNDZÜGE ZU EINER CHARAKTERISTIK DER GEGENWART MIT BESONDERER BERÜCKSICHTIGUNG DER HEGEL'SCHEN PHILOSOPHIE*
 - *Zeitschrift für moderne Philosophie*, Breslau 1843, Nr. 1.
 - N VI S. 55–74.
 - Der im Sommer 1843 geschriebene Aufsatz ist gezeichnet “F. Lassal”. Er füllt in der handschriftlich hergestellten Studentenzeitschrift die ganze erste Nummer (44 1/4 Spalten), ohne damit beendet zu sein; weitere Nummern sind erschienen, jedoch nicht erhalten geblieben. Lassalle veröffentlichte in ihnen noch mindestens einen Artikel *Zur Religionsphilosophie des Christenthums*.
 - Das von Gustav Mayer für seinen Abdruck des Textes benutzte Exemplar der ersten Nummer der Zeitschrift befindet sich im Lassalle-Nachlaß. Die Wroctawer Bibliotheken teilten mit, keine Nummern der Zeitschrift zu besitzen. Die Nachlässe der Mitherausgeber der Zeitschrift, R. von Gottschall und M. von Wittenburg, gelten als verschollen.
- **A10a.1:** *[ÜBER DEN HANDEL UND OBER DEN WEBERAUFSTAND]*
 - N I S. 99–105
 - Brief an den Vater, vom 12. Juni 1844.
 - Nach seiner Übersiedelung an die Berliner Universität schickte Lassalle mehrere ausführliche Manuskripte zu einzelnen Themen in Briefform an seine Eltern und Freunde. In diesen “Manuskriptbriefen” fand die Selbstverständigung des Studenten ihren Niederschlag. Gustav Mayer veröffentlichte vier dieser Texte, die bewahrt geblieben waren (DR.L.A10a, DR.L.A10b, DR.L.A10c und DR.L.A12a). Ebenfalls als Manuskriptbriefe anzusehen sind die Texte DR.L.A24a und DR.L.A25b sowie die an Sofija Sontzova gerichtete sogenannte “Seelenbeichte” vom Oktober 1860 (Brief Nr. 7 in DR.L.B11).
- **A10b.1:** *[ÜBER JUDENTUM UND GESCHICHTE]*
 - N I S. 106–114
 - Brief an die Mutter, vom 30. Juli 1844
- **A10c.1:** *[ÜBER ADEL, STAAT, INDUSTRIE UND KOMMUNISMUS]*
 - N I S. 114–136
 - Brief an den Vater, vom 6. September 1844. Von Lassalle “Brief über die Industrie” genannt (in DR.L.A12).

2.D.6.4.2

A91.1 *DER HOCHVERRATES-PROZESS WIDER FERDINAND LASSALLE VOR DEM STAATS-GERICHTS-HOFE ZU BERLIN, AM 12. MÄRZ 1864. NACH DEM STENOGRAPHISCHEN BERICHT.*

- Berlin, Verlag von Reinhold Schlingmann, [Druck von R. Gensch in Berlin, Kronenstraße 36], 1864, in-8, 78 S.
- RS II S. 754–830
- GRS IV S. 61–174
- In der Anklageakte (S. 4–10) wegen der Veröffentlichung von DR.L.A77 stellt das Gericht fest, die Auflage habe 16000 Exemplare betragen, von denen insgesamt 3026 beim Verleger, dem Verfasser und einem Expedienten beschlagnahmt wurden. Die Verteidigungsrede Lassalles auf S. 36–73. Eine Eingabe Lassalles an den Anklagesenat, vom 29. November 1863, drückt G. Mayer in N VI S. 384–391. Die Broschüre erschien in einer Auflage von 1200 Exemplaren (vgl. Lassalle an Schlingmann, 25. Mai 1864). Ein langer Brief der Gräfin Hatzfeldt an Mathilde Anneke vom 23. März 1864 (in WHi, Anneke Papers) schildert ausführlich Lassalles Aufreten vor Gericht und seine Rede.
- Archives: ASD BA IMLB SUBD UBBa UBK

A92.1 *PROCLAMATION*

- RS II S. 905–907
- GRS IV S. 268–271
- Datiert und unterzeichnet “Berlin, den 17. März 1864. Der Präsident des Allg. Deutsch. Arbeiter-Vereins. Ferdinand Lassalle.”
- Lassalle gibt bekannt, daß künftig in Abweichung von den Bestimmungen des Textes DR.L.A68 die rechtsrheinischen Gemeinden auf Grund ihrer “starken Mitgliederzahl” selbst ihre Bevollmächtigten Vorschlägen. Gleichzeitig wird Carl Klings zu Lassalles “Kommissar” ernannt, der die Durchführung dieser Anordnung zu organisieren hat.

92a.1 *[VERFÜGUNG]*

- In-8, [1] S. Handschrift vervielfältigt.
- Die aus Berlin vom 7. Mai 1864 datierte Verfügung ist an den Vereins-Kassierer Gustav Lewy gerichtet und ordnet die monatliche Auszahlung des Sekretär-Gehalts an Eduard Willms an. Es wurde kein Exemplar gefunden, aber das Nachlaß-Repertorium sagt dazu: “Eigenh. Ausfertigung Lassalles und Faksimile-Umdruck in zahlreichen Exemplaren, je 1 S. 8°” (V, 11 in DR.L.C104).
- Demnach ist möglicherweise die Versendung unterblieben.

A93.1 *[REDE IN DER LEIPZIGER GEMEINDE DES ADAV]*

- N VI S. 274–282
- Fragment einer Nachschrift (mit Verbesserungen von Lassalles Hand) der Rede, welche Lassalle am 9. Mai 1864 in Leipzig gehalten hat. G. Mayer ergänzt das unvollständige Manuskript aus den Versammlungsberichten des Hamburger *Nordstern* (2. Mai 1864, Nr. 258, S. 2) und des Leipziger *Adler. Zeitung für Deutschland* (11. Mai 1864). Große Teile dieser Rede sind identisch mit der Rede DR.L.A94.

A93a.1 HERRN OTTO DANNER IN LEIPZIG.

- In-8, [1] S. Handschrift vervielfältigt.
- Von Danmer geschrieben und datiert “Leipzig, 11. Mai 1864” und von Lassalle unterzeichnet. Lassalle ernennt Danner “für die Dauer meiner Abwesenheit von Berlin zum Vice-Präsidenten” des ADAV und überträgt ihm “alle mir selbst zustehenden Funktionen und Befugnisse”. In einem kurzen Vorsatz er-sucht Danner “Geehrte Redaction” um Aufnahme des Textes. Er übersandte das Zirkular mit einem Begleitschreiben vom 12. Mai 1864 (Exemplar in HA) an die Bevollmächtigten und Vorstandsmitglieder.
- Archives: HA, IISG

A94.1 DIE AGITATION DES ALLG. DEUTSCHEN ARBEITERVEREINS UND DAS VER-SPRECHEN DES KÖNIGS VON PREUSSEN. EINE REDE GEHALTEN AM STIFTUNGS-FEST DES ALLGEMEINEN DEUTSCHEN ARBEITER-VEREINS ZU RONSDORF AM 22. MAI 1864 VON FERDINAND LASSALLE.

- Berlin, Verlag von Reinhold Schlingmann, [Druck von R. Gensch in Berlin, Kronenstr.36,] 1864, in-8, 52 S.
- RS II S. 841–872
- GRS IV S. 187–229
- Die Broschüre erschien in einer Auflage von 2000 Exemplaren (vgl. Schlingmann an Lassalle, 28. Mai 1864) gegen Ende Juni 1864 (vgl. Willms an Lassalle, 19. Juni 1864). Die Korrektur hat Bucher gelesen (vgl. Bucher an Lassalle, 6. Juni 1864). Das unvollständige Konzept zu dieser Rede hat G. Mayer gedruckt in N VI S. 282–284. Lassalle hat dieselbe Rede vorher in verschiedenen anderen rheinischen Städten gehalten: in Düsseldorf am 13. Mai, in Solingen und Barmen am 14. Mai, in Köln am 15. Mai, in Duisburg am 16. Mai und in Wermelskirchen am 18. Mai. Im Anhang der Broschüre sind mehrere Versammlungsberichte nachgedruckt (S. 42–52), darunter zwei von Lassalle selbst verfaßte (vgl. DR.L.A95, DR.L.A96). Der Anhang ist auch in allen Nachdrucken enthalten. Das Exemplar in IMLB befindet sich in einem Konvolutband aus dem Besitz Clara Zetkins.
- Vgl. DR.L.A93.
- Archives: BA, IISG, IMLB, SUBH, UBK, ZBZ

A95.1 WERMELSKIRCHEN, DEN 19. MAI

- *Nordstern*, Hamburg, 28. Mai 1864, Jahrg. V, Nr. 259, S. 3.
- RS II S. 875–878
- GRS IV S. 232–237
- Anonymer Bericht über die Agitationsversammlung in Wermelskirchen am 18. Mai 1864, vor der Lassalle die Rede DR.L.A94 gehalten hat. Der Bericht enthält ein „Lied zur Abholung des Präsidenten F. Lassalle“, dessen „tiefe Innigkeit“ und „Charakter des echten alten Volksgesangs“ hervorgehoben werden. Die Verfasserschaft des Berichts ist belegt durch den eigenhändigen Entwurf Lassalles und einen von ihm bearbeiteten Korrekturabzug im Nachlaß, denen die Manuskripte der beiden Gedichte beigelegt sind (V, 12 in DR.L.C104).
- Der Bericht ist, soweit nicht anders bemerkt, in allen Ausgaben von DR.L.A94 abgedruckt.
- Archives: IISG

A96.1 RONSDORF, 23. MAI

- *Der Adler*, Leipzig, 25. Mai 1864
- RS II S. 878–881
- GRS IV S. 237–240
- Anonymer Bericht über die Agitationsversammlung in Ronsdorf am 22. Mai 1864, vor der Lassalle die Rede DR.L.A94 gehalten hat. Die Verfasserschaft wird Lassalle zugeschrieben von Vahlteich (DR.L.C893, S. 8) und von Bernstein (RS II, S. 839). Der Adler konnte nicht aufgefunden werden. Der Bericht ist, soweit nicht anders bemerkt, in allen Ausgaben von DR.L.A94 abgedruckt.

A97.1 ERWIDERUNG

- *Neue Preußische (Kreuz-) Zeitung*, Berlin, 19. Juni 1864, Nr. 141, 1. Beilage S. 1.
- RS III S. 270–282
- GRS V S. 365–381
- Datiert und unterzeichnet „Bad Ems, den 2. Juni 1864. F. Lassalle.“ Die Erwiderung antwortet auf die lange Besprechung von DR.L.A87 in der *Kreuz-Zeitung* (vgl. DR.L.C907). Die Aufnahme der Entgegnung in das konservative Organ erfolgte, nach anfänglicher Weigerung (Brief der Redaktion an Lassalle, 8. Juni 1864), erst auf Intervention des ehemaligen Chefredakteurs der Zeitung, Hermann Wagener. Der Bismarck sehr nahestehende Wagener war der anonyme Verfasser der Besprechung.
- Auf Lassalles Instruktion kaufte der Vereinssekretär Willms 50 Exemplare der Beilage (oder bestellte 50 Sonderabzüge des Textes), um sie an die Bevollmächtigten zu versenden. Vgl. Lassalle an Willms, 15. Juni 1864, und Willms an Lassalle, 19. Juni 1864.

- Vgl. hierzu auch *Der Artikel des Herrn Lassalle in der Kreuzzeitung vom 19. Juni mit einigen Randbemerkungen* in *Deutsche Arbeiterzeitung*, Leipzig, 15. Juli 1864, Nr. 16, S. 123–127.
- Archives: ASD, IZD

A98.1 PROZESS LASSALLE

- *Düsseldorfer Zeitung*, 29. Juni 1864, Nr. 176, S. 2–3; 30. Juni, Nr. 177, S. 2–3; 1. Juli, Nr. 178, S. 2–3.
- RS II S. 677–706
- GRS III S. 405–444
- Bericht über den in Düsseldorf am 27. Juni 1864 in zweiter Instanz verhandelten Prozeß wegen der Broschüre DR.L.A73. Der Bericht erwähnt eingangs, daß am 21. Oktober 1863 von der Gesamtauflage von 10000 Exemplaren beim Verleger 1034 und noch “einige 20 Exemplare” bei Buchhändlern in Berlin und Düsseldorf beschlagnahmt wurden. Der obige Titel erscheint nur in Nr. 177 und 178 der *Düsseldorfer Zeitung*, die Lassalles Verteidigungsrede enthalten. Den Prozeßbericht schrieb der Lassalle befreundete Redakteur Paul Lindau auf Grund seiner stenographischen Nachschrift der Rede, die er Lassalle vorlas, der ihm nach seinem Konzept Korrekturen und Zusätze diktierte. Lindau hat das Konzept in DR.L.C502 (S. 13–22) veröffentlicht. Das Original befindet sich jetzt in SLD. Das Urteil und eine Zusammenfassung der ausführlichen Urteilsbegründung in der *Düsseldorfer Zeitung* vom 3. Juli 1864, Nr. 180, S. 3.
- Archives: SUBD

A99.1 CIRCULAR AN SÄMTLICHE VORSTANDS-MITGLIEDER.

- Druck von J. Draeger’s Buchdruckerei (C. Feicht) in Berlin, o.J. in-8, 15-1 S.
- RS II S. 911–927
- GRS IV S. 276–298
- Datiert und unterzeichnet “Rigi-Kaltbad, 27. Juli 1864. Der Präsident des Allg. deutschen Arbeitervereins. Ferdinand Lassalle.” Lassalle stellt ausführlich seine verschiedenen Konflikte mit Vahlteich dar (vgl. DR.L.A86) und begründet seine unausgesprochene Forderung, Vahlteich aus dem ADAV auszuschließen. Anlaß zu dem ungewöhnlich umfangreichen Zirkular und dem scharfen Ton gegen Vahlteich war dessen Antrag vom 28. Juni 1864 (RS II S. 909–910; GRS IV S. 274–275) zur Generalversammlung des ADAV für 1864, der auf eine Einschränkung der Präsidialbefugnisse zugunsten derer des Vorstandes und auf eine demokratische Beschickung der Generalversammlung abzielte. Lassalle fügte dem Manuskript eine Privatinstruktion an den Vereinssekretär Willms bei (RS II S. 928–930; GRS IV S. 298–301), aus der hervorgeht, daß er ihm zugleich zwei weitere Zirkulare an die Vorstandsmitglieder zur Vervielfältigung und Versendung schickte. Sie bestrafen die Ernennung von B. Becker und von Schweitzer zu Vorstandsmitgliedern

und die Ernennung von Kassenrevisoren. Keines dieser beiden Zirkulare wurde aufgefunden.

- Lassalles letztes Zirkular erschien am 3. August 1864 im Druck (Vgl. Willms an Lassalle, 3. August 1864) in einer Auflage von wahrscheinlich 100 Exemplaren (vgl. Lassalle an Willms, 27. Juli 1864). Vahlteich antwortete darauf mit einem Rundschreiben an die Vorstandsmitglieder vom 11. August 1864 (RS II S. 930; GRS IV S. 302).
- Vgl. DR.L.B10, S. 245–256.
- Archives: BIF, SBB*

A100.1 *DIES IST MEIN TESTAMENT.*

- Großenhain 1889 in DR.L.C441 (S. 12–15)
- RS II S. 956–958
- GRS IV S. 337–339
- Datiert und unterzeichnet “Eigenhändig geschrieben und unterschrieben: Genf 27 August 1864 Ferdinand Lassalle”. Vermacht u.a. “Die gelehrten und schriftstellerischen Aufsätze und Notizen” sowie “Das Eigenthum an meinen sämmtlichen schriftstellerischen und gelehrten Werken [...] Herrn Lothar Bucher.” In der für den ADAV entscheidenden Verfügung empfiehlt Lassalle die Wahl des Frankfurter Bevollmächtigten Bernhard Becker zu seinem Nachfolger, mit dem Rat: “Er soll an der Organisation festhalten! Sie wird den Arbeiterstand zum Sieg führen!” Der Abdruck in DR.L.C441 erfolgte nach der Abschrift in Holthoffs Nachlaß, die der Gräfin Hatzfeldt von den Genfer Behörden zur Verfügung gestellt worden war. Der Abdruck wurde mit dem Original im Genfer Staatsarchiv (Jur. Civ., AAQ *Testaments*, vol. 13, No. 116) verglichen. Er weicht von ihm nur in unbedeutenden Einzelheiten ab, wie Auflösung von Abkürzungen, Umwandlung ausgeschriebener Zahlen in arabische Ziffern, Einfügung fehlender Interpunktionszeichen u.ä. Kohut druckte denselben Text noch einmal im selben Jahre in DR.L.C442 (S. 190–192).
- Damit ist Na’amans Hypothese hinfällig, ein Kopistenirrtum habe obigen Text an die Stelle der von Na’aman vermuteten Formulierung “Er soll die Organisation festhalten” gesetzt (vgl. DR.L.C650 und DR.L.C652).

The source abbreviations for this subset are as follows:

ASD Archiv für soziale Demokratie, Bonn, Germany

BA Sammlung Bert Andréas, im Institut Universitaire de Hautes Etudes, Genf [Geneva], Switzerland

BIF Biblioteca dell’Istituto Giacomo Feltrinelli, Milan, Italy

BM British Library, im British Museum, London, UK

FUB Bibliothek der Freien Universität, Berlin, Germany

HA Herwegh Archiv, im Dichter Museum, Liestal, Switzerland

HBSA Hamburger Bibliothek für Sozialgeschichte und Arbeiterbewegung, Hamburg, Germany

IISG Internationaal Instituut voor Sociale Geschiedenis, Amsterdam, The Netherlands

IMLB Institut für Marxismus-Leninismus, Berlin, Germany

IZD Institut für Zeitungsforschung, Dortmund, Germany

JNUL Jewish National and University Library, Jerusalem, Occupied Palestinian Territories

KMH Karl Marx Haus, Bibliothek, Trier, Germany

LBN Leo Baeck Institute, New York, NY, USA

LR Ludwig Rosenberger (Privatsammlung), Chicago, IL, USA

MS Manuskript

N DR.L.B65

OCH Hebrew Union College Library, Cincinnati, OH, USA

SBB* Stadtbibliothek, Sondersammlungen, Berlin, Germany

SUBD Stadt- und Landesbibliothek, Düsseldorf, Germany

SUBH Staats- und Universitätsbibliothek, Hamburg, Germany

UBBa Universitäts-Bibliothek, Basel, Switzerland

UBK Universitäts-Bibliothek, Köln [Cologne], Germany

UBW Uniwersytet Wrocławski Bibliotek, Wrocław [Breslau], Poland

ZBZ Zentralbibliothek, Zürich, Switzerland

2.D.6.5 Nietzsche's Reading Records

The books Nietzsche read, and those he borrowed or owned but probably never read, have been meticulously traced in [60], and listed in an Appendix from pages 185 to 258. We use this data source to observe that, although Nietzsche never read Marx or Engels directly (according to Brobjer's research), he *was* deeply influenced by Marx and Engels' rival Eugen Dühring, discussed above. Indeed, 13 different readings of Dühring's texts are recorded in Nietzsche's reading logs: 7 readings in 1875, one each in 1878, 1881, 1883, and 1884, and then two in 1885. As a sample of the full reading logs, his readings for just the year 1875 (including the 7 Dühring texts) are reproduced here:

1. E. Windisch, *Indian Philosophy*

2. Heinrich Brockhaus, *Rectoratsrede über indische Philologie* (Nietzsche Attended Brockhaus's lecture "Overview of the Results of Indian Philology" this year)
3. Montaigne, *Essays*
4. John William Draper, *Geschichte der geistigen Entwicklung Europas* (1871)
5. E. Windisch, (on Indian philosophy)
6. P. Deussen, (on Indian philosophy)
7. Eduard von Hartmann, (unknown text)
8. G. Grote, on Plato
9. Carl Fuchs, Unpublished notes and essays
10. Paul Rée, *Psychologische Beobachtungen* (1875) (Nietzsche writes to Rée on October 22, 1875, commenting on the book. This marks the beginning of their friendship. Nietzsche's copy of the book has a personal dedication from Rée.)
11. E. Windisch, *Tripitaka der Buddhisten*
12. Wolfgang Senfft, *Indischer Sprüche*, 3 vols.
13. *Sutta Nipáta* (in English translation)
14. Otto von Böhtingk, *Indische Sprüche: Sanskrit und Deutsch*, 3 vols. (1870-1873)
15. Aristotle, (unknown work)
16. A. Schopenhauer, (unknown work)
17. A. Schopenhauer, *Die Welt als Wille und Vorstellung*
18. Xenophon von Athen, *Memorabilien*
19. A. Schopenhauer, *Parerga, Vol. 1*
20. G. C. Lichtenberg, *Einige Lebensumstände von Capt. James Cook, grösstenteils aus schriftlichen Nachrichten einiger seiner Bekannten gezogen in Vermischte Schriften* (1867)
21. F. M. A. Voltaire, (unknown work)
22. Eugen Dühring, *Der Werth des Lebens: Eine philosophische Betrachtung* (Breslau, 1865) (Nietzsche made a 63-page summary with comments. N acquired this book May 26, 1875.)
23. Eugen Dühring, *Cursus der Philosophie als streng wissenschaftlichen Weltanschauung und Lebensgestaltung* (Leipzig, 1875) (Nietzsche acquired this book on April 21, 1875, and read it in the summer of 1875. He later reread it in 1885.)

24. K. Hillebrand, "Schopenhauer und das deutsche Publikum," in *Zeiten, Völker und Menschen*, Vol. 2 (Berlin, 1875)
25. A. Schopenhauer, *Sämtliche Werke, Frauenstädt*, 6 vols. (Leipzig, 1873-1874) (Nietzsche bought this book in 1875.)
26. Eugen Dühring, *Kritische Geschichte der Philosophie von ihren Anfängen bis zur Gegenwart* (Berlin, 1873) (Nietzsche bought this book in 1875.)
27. W. Oncken, *Die Staatslehre des Aristoteles in historisch-politischen Umrissen*, 2 vols. (Leipzig, 1870) (Nietzsche bought this book in 1875.)
28. Eugen Dühring, *Natürliche Dialektik* (Berlin, 1865) (Nietzsche bought this book in 1875.)
29. Eugen Dühring, *Kritische Geschichte der allgemeinen Prinzipien der Mechanik* (Berlin, 1873) (Nietzsche bought this book in 1875.)
30. Plato, many different booklets (Nietzsche bought these in 1875.)
31. Confucius, *Ta-Hio* (Nietzsche bought this book in 1875.)
32. Confucius, *Lao-tse tao* (Nietzsche bought this book in 1875.)
33. K. Hillebrand, *Zeiten, Völker und Menschen*, 2 vols. (Berlin, 1875) (Nietzsche bought this book in 1875.)
34. Eugen Dühring, *Kursus der National- und Sozialökonomie, einschliesslich der Hauptpunkte der Finanz-politik* (Berlin, 1873) (Nietzsche bought this book in 1875.)
35. Eugen Dühring, *Kritische Geschichte der Nationalökonomie und des Sozialismus* (Berlin, 1875) (Nietzsche bought this book in 1875.)
36. John William Draper, *Geschichte der Conflicte zwischen Religion und Wissenschaft, Int. wiss. Bibl. XIII* (1875) (Nietzsche bought this book in 1875.)
37. Herbert Spencer, *Einleitung in das Studium der Sociologie*, Vol. 1, *Int. wiss. Bibl. XIV* (1875) (Nietzsche bought this book in 1875.)
38. Herbert Spencer, *Einleitung in das Studium der Sociologie*, Vol. 2, *Int. wiss. Bibl. XV* (1875) (Nietzsche bought this book in 1875.)
39. Paul Rée, *Psychologische Beobachtungen* (Berlin, 1875) (Nietzsche bought this book in 1875.)
40. Aristotle, *Rhetorik* (University teaching, summer term of 1875)
41. Diogenes Laertius, *Demokritos* (University teaching, winter term of 1875-1876)
42. Plato, *Phaedon* (Paedagogium teaching, winter term of 1875-1876.)

43. Plato, *Protagoras* (Paedagogium teaching, winter term of 1875-1876.)
44. Plato, *Symposion* (Paedagogium teaching, winter term of 1875-1876.)
45. Plato, *Phaedrus* (Paedagogium teaching, winter term of 1875-1876.)
46. Plato, *Politeia* (Paedagogium teaching, winter term of 1875-1876.)
47. George Henry Lewes, *Geschichte der Philosophie von Thales bis Comte*, Bd. 1 (Berlin, 1871) (Borrowed from the Basel University library, 1875.)
48. Aristotle, *Ars rhetorica*, hrsg. von L. Spengel, 2 Bde. (Leipzig, 1867) (Borrowed from the Basel University library, 1875.)
49. Democritus, *Operum fragmenta*, hrsg. von F. W. A. Mullach (Berlin, 1843) (Borrowed from the Basel University library, 1875.)
50. Staphanus Byantinus, *Ethicorum quae supersunt*, hrsg. von A. Meineck, Bd. 1 (Berlin, 1849) (Borrowed from the Basel University library, 1875.)

The full dataset is available at <https://airtable.com/shrkclLiN1GHJlQ2h>

2.E Table Footnotes

2.E.1 Table 2.3.1

a [134], p. 19

b Paris notebooks, MEGA² IV/2

c Brussels notebooks, IISH code B32, MEGA² IV/3

d [351] claims that Marx read this text (p. 9), but no other records exist to substantiate this claim.

e IISH code B91a, S. 147–149.

f Brussels notebooks, IISH code B33, S. 16–29.

g [351] claims, however, that Marx “presumably read” Ciezkowski’s *Historiosophie*, however.

z hello3

Chapter 3: Quantifying Cultural Diplomacy

The Translation and Diffusion of Marxism from the Communist Manifesto to the Cold War

Abstract

We show, using a series of datasets compiled from declassified US and Soviet documents from 1945–1991, that the Soviet Union responded to political instability and regime change in Third World countries by massively increasing “soft power” projection into these countries. On average, a regime change (both CIA-backed and not) in a Third World country was associated with a ___% increase in the volume of literature published in the languages of the country, and a ___% increase in the number of scholarships granted to students in the country. We show that this finding holds from 1956, the beginning of Khrushchev’s control over foreign policy decisions, until the end of the Soviet Union in 1991, regardless of the particular policymakers in charge of soft power decisions. We conclude with a comparative study of the exported literature, finding that “overt” propaganda discussing Marxism-Leninism and Communism in the USSR was most prevalent in industrialized Third World countries, while non-overt texts devoid of Communist doctrinal terminology were more prevalent in non-industrialized, agriculture-heavy countries.

3.1 Introduction

The purposeful export of culture, whether carried out by states and termed “soft power” in International Relations (Nye 2009) or carried out by non-state actors and termed “internationalism” in the study of revolutions (Halliday 1999), has long been recognized as a potent force for power projection in the global arena. Especially since Nye’s seminal 1990

exposition of its role in global politics, interest in soft power has skyrocketed both within academia and more broadly in the eyes of state actors like Xi Jinping (Shambaugh 2015), international organizations like The Hague (Nye 2019), and corporate consulting firms like BrandFinance (Haigh 2020).

Despite its centrality to our contemporary understanding of international relations, and unlike the case for overt military, political, and economic coercion, *empirical* studies of soft power projection and its effects remain few and far between. In this study, we leverage a series of datasets compiled from declassified US and Soviet documents to show that the Soviet Union disproportionately deployed its soft power capabilities in Third World countries in the immediate aftermath of regime changes in these countries. We argue that this reveals a strategy wherein the USSR aimed to capitalize on the uncertainty and instability of newly-installed regimes by flooding their populations with literary propaganda as well as massively increasing scholarships to study at the Patrice Lumumba People's Friendship University.

We also argue, in particular, that the USSR's propaganda exports were strategically targeted such that different "Marxisms" were constructed for different Third World regimes, each one drawing on a different subset of Marx's, Engels', and Lenin's writings. For example, the ideology exported to staunchly Non-Aligned post-colonial states like India focused more on children's education, indicating a concern with shaping the perception of the USSR in future generations, while in other post-colonial states like Ethiopia and Iran the imperative to seize state power was overtly emphasized, indicating the hopes of Soviet officialdom that their foothold among these countries' burgeoning urban elites could be leveraged to encourage revolution and the installation of a Soviet-friendly post-revolutionary regime. In a third case, for resistance movements in regions still fighting to overthrow colonial regimes like the Portuguese colonies in Southern Africa and Southeast Asia, the propaganda emphasized Marxism-Leninism as diametrically opposed to Western liberalism and portrayed the US as the torch-bearers of continued colonial dominance. We operationalize these hypotheses by examining the distribution of *genres* exported to different regions at different times: how

much weight was given to educational materials (e.g., textbooks), overtly Marxist-Leninist materials (e.g., the original writings and commentary on Marx, Engels, and Lenin), and more abstract philosophical or ethical works (e.g., historical works which emphasized the virtues of a region's anti-colonial heroes or martyrs such as Simon Bolivar in Latin America).

3.2 Methods

3.3 Data

3.4 Results

3.5 Discussion

3.6 Conclusion

Modern scholarship on the history of political thought, and especially the questions of intellectual influence and the locutionary impact of a thinker’s interventions with respect to a broader discourse, have given rise to a rich body of work stressing the importance of formerly non-canonical thinkers—“major” and “minor” interlocutors—for deepening our understanding of a given text. In this work we have shown how this type of context-inclusive analysis, though it typically expands the necessary amount of reading beyond the limits of individual human capabilities, can be brought back into the realm of possibility with the aid of modern computational-linguistic tools. We have also highlighted, however, the crucial domain expertise and interpretive skills which are still required of a researcher or team of researchers in order to carry out such a computer-aided study successfully. This “outsourcing” of certain aspects of a study to computational tools can, in fact, have pernicious consequences, drastically amplifying the risk of drawing invalid inferences if hidden assumptions and seemingly-inconsequential methodological choices are not interrogated with a critical eye.

An additional consideration must therefore be kept in mind when determining whether or not to employ the computational methods discussed here in an intellectual-historiographic endeavor, namely, that of the diminishing returns from a wider and wider expansion of the set of texts being analyzed. Although these methods can enhance the replicability and verifiability of a given study, the key contribution which we have emphasized is the ability for these methods to vastly expand the contextual scope of a study—i.e., how many additional texts are taken into account when deriving our conclusions about a given text or discourse of interest. It may in fact be the case, however, that a given author or text *did* intervene in a discourse which was bounded or insulated enough that it remains amenable to standard non-computationally-aided study.

As Leo Strauss’ *Persecution and the Art of Writing* brought to the fore of political-philosophical thought, for instance, an author may purposefully restrict their interlocutors to a select few individuals out of fear of censorship or the potential consequences of their views

being publicly revealed. Indeed, in the recently-published first volume of his thoroughgoing biography of Marx himself, Michael Heinrich discusses the impact of Reimarus' *Apologie oder Schutzschrift für die vernünftigen Verehrer Gottes* on Marx's early thought (and on 19th-century German philosophy more broadly), despite the fact that it was only ever read by Reimarus' closest friends and never published in his lifetime. In Cambridge School analyses such as ours where the aim is to ascertain what an author was attempting to do with a given text, instances like these where its ideas become influential despite being written and distributed under persecution present a more challenging case, requiring detailed study of a small set of extant material rather than a wider computational study of a broad public discourse, like ours.

More commonly, e.g. for European texts of the Middle Ages up through the Renaissance, it may actually be the case that a thinker wrote with a small select audience in mind, given the rarity of both literacy and access to printing presses (not to mention the financial resources required to fund a widely-distributed publication). Even into the era of the French Enlightenment, many texts which we now consider to be epochal or canonical were originally only addressed to and read by a small set of close confidantes. Indeed, [161] describes in detail how pre-Revolutionary French *salonnières* discussed and debated their ideas in tightly-knit, insular communities wherein “reading one’s manuscripts aloud in salons could be an alternative to publication,” such that “there were manuscripts that were read in or circulated through salons and never published, such as Gentil-Bernard’s ‘Art d’Aimer,’ which went the rounds for years, and Guibert’s ‘Eloge du Chancelier de l’Hospital’” (p. 147; see also [87]). In cases like these with an ostensibly bounded contextual scope, a “classical” non-computational approach (such as that of [372] and [373], [326], or [27]) may be the better option, in terms of eliminating concerns that the computational tools may miss important contextual details or collapse important distinctions in word usage¹.

¹Cf., however, [35], which illustrates how even the early 16th-century spread of Martin Luther’s ideas involved a vast network of interlocutors: correspondents, former students, and theological opponents spread across the entirety of present-day Germany and beyond.

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