Data-Driven Modernism: Collecting Lives and Narrating Selves in Early 20th Century U.S. Literature

by

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DEDICATION

To my contemporaries

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ABSTRACT

Data-Driven Modernism argues that U.S. modernist life writers W.E.B. Du Bois, Gertrude Stein, Henry Adams, and Constantine Panunzio draw from their engagements with humanist empiricisms to formulate a critical data aesthetic. The introduction proposes a concept of data that is distinct from information, the database, and the digital. The following chapters demonstrate how data-driven modernists turn to data collection as a method for answering questions of identity. Drawing from professional engagements with disciplines in the midst of methodological reconfiguration around the work of data collection, these writers confront and leverage the paradox of data: while in theory its exhaustive collection is the key to revealing identity, in practice it ceaselessly surfaces the potential others within. In an era in which the question of who certain people, or groups of people, "really are" is central to public debate, questions of identity are politically as well as personally urgent for each. Chapter one shows how Du Bois uses data collection to intervene in fixed narratives of African American life. Chapter two links Adams's desire for empiricist history to his perception that the education of the modern subject cannot be narrated. Chapter three theorizes immigration at the nexus of data, narrative, and nation through readings of Chicago School sociology's collection of life histories to arrive at laws of "social becoming," the "lifelets" collected as The Life Stories of Undistinguished Americans, and Panunzio's Soul of an Immigrant. Chapter four argues data is a formal underpinning of both Stein's innovation and her re-iteration of racial othering. Seeing both Stein and Melanctha as data collectors bent on knowing the self by assembling an exhaustive data collection, I chart the differential social

effects of representing life as a data collection. Comparatively situating works from a range of modernist canons in the data episteme—a cultural surround in which data and its collection are presumed to offer unprecedented access to reality, truth, and power—I argue for the recognition of the data point as a modernist aesthetic, the long conceptual history of data as a technology of selfhood, and data representation's intersection with material histories of power.

INTRODUCTION

"More nearly a transcript of life": Converging desires for data in the early twentieth-century United States

"For that which is deserving of existence is deserving of knowledge, the image of existence."

—Francis Bacon, Novum Organum

In the April 13, 1905, issue of *The Independent*, chemist and literary critic Edwin Slosson proposes the recognition of a "new literary type," one that has been pioneered in the pages of that very magazine through its project of collecting "short autobiographies of undistinguished people." He calls this new form the "lifelet." His explanation for its emergence plots a complex interaction between a cultural surround of pervasive empiricism and readerly desire. "Most people—perhaps all," he claims, are now "more impressed by the concrete than the abstract" (2) and "prefer to come into closer touch with reality" (1). Accordingly, they seek different aesthetic forms. Uninterested in the "generalized types of humanity as expressed by the artist in painting and sculpture," Slosson suggests that "romances and poems do not interest them so much as do individuals." This explains why "the cleft between the realistic and romantic novels is widening" with the former "becoming more nearly a transcript of life" (2). "Individuals" and "transcript" are aligned with realism and opposed to "generalized types" employed by "romances and poems." He and his readers imagine representations of reality as closest to the real, then, when composed of single, actual instances collected with as little authorial intervention as possible.

The preference for and epistemological value attributed to the collection of observations rather than the construction of narrative is also on the ascendant in scientific practice, Slosson continues to point out, which seems increasingly focused on collecting observations for future analysis rather than the proposal of overarching theories. Slosson writes, "Formerly, botanists used to talk a great deal about species and types; later they turned their attention to varieties, and now the men who are making the most progress are experimenting with one plant and a single flower of that one" (3). Biology as typology has given way to biology as exacting observation. Indeed, the "candidate for the Ph.D. watches a single amoeba under a microscope and writes his thesis on one day's doings of its somewhat monotonous life."

Slosson's image of the Ph.D. candidate making a "thesis" of simply recording an amoeba's activities during a single day offers a tantalizing anticipation of the aesthetic innovation for which the literature of the early twentieth century would soon be known. Works such as James Joyce's *Ulysses* and Virginia Woolf's *Mrs. Dalloway* make a novel out of one day's doings of the life of an ordinary person, taking up the same chronologically constrained and transcription-like method to rethink the relationship between literary narrative and the reality of lived experience. Whereas species and types used to offer an overarching vision into which each individual would fit, the epistemology of data holds that each individual must first be encountered and then be accounted for in a theory that emerges organically only after long observation.

Slosson continues to describe the lifelet in ways that blur the boundaries between sociological research and aesthetic innovation. He writes, "To these two forces tending to develop new forms of literature, the love of truth and the interest in the concrete, we must add another one, the spirit of democracy, the discovery of the importance of the average

man. This, after all, is the most profitable branch of nature study, the study of *Homo sapiens*" (3). To this end, the magazine's editor, Hamilton Holt, "has for several years devoted himself to procuring such narratives with the object of ultimately presenting in this way a complete picture of American life in all its strata...a mosaic picture composed of living tesserae" (4) intended to "have both a present and a future value as a study in sociology" (5). As the "average man" is the concrete particular of democracy, the collection of lifelets also serves as an empirical inquiry into the future of the nation: "In all countries the question of national destiny is always ultimately settled by...the undistinguished people who move the world...the non-vocal part of the population, the silent partners who have the controlling vote in the governmental firm" (5). In effect, the definition of a new literary type serves as a methodological formulation. Lives are imagined as data points adding up to the reality of the U.S. nation. Through the exhaustive collection of lifelets, readers will be able to survey the total reality of their nation and, it is hoped, see its future revealed.

Slosson's discussion of the lifelet as form and lifelet collection as knowledge project encapsulates the convergence of epistemological, historical, and representational uses of data collection that this study expands upon: the empiricist epistemology that imagines reality as a collection of equal and equally significant points; the history, especially pronounced in the United States, of collecting data in order to fix mobile selves on national maps; and the representational forms—visual and textual—that are generated and circulated as a result of both.

Data-Driven Modernism argues that data, as an epistemological concept and representational form, pinpoints a critical, yet underexplored, intersection between studies of U.S. modernism and the intellectual histories of scientific authority, race thinking, nation building, and humanist methods. By focusing on the narrative representation of human lives

through and in relation to data collection in the United States during the late nineteenth and early twentieth centuries, this study contextualizes modernist life writing forms in the data episteme—a cultural surround in which data and its collection are presumed to offer unprecedented access to reality, truth, and power—in order to reveal not only the long conceptual history of data as a technology of selfhood, but also its intersection with material histories of power, that is, who has the ability to collect data about whom and to what ends. Reading texts that are normally located within vastly different canons through the lens of data collection reveals shared epistemological commitments and formal qualities that suggest a broader context for both social scientific and aesthetic innovation.

In the chapters that follow, I focus on W.E.B. Du Bois, Gertrude Stein, Henry Adams, and a group of im/migrant writers. These writers turn to data collection as a method for answering questions of identity. Each draws from a professional engagement with one or more of the human-oriented empiricisms of their day (sociology, history, psychology, medicine) that were in the midst of disciplinary reconfigurations around the work of data collection. As they do so, they confront and leverage the paradox of data: while in theory its exhaustive collection is the key to revealing identity, in practice it ceaselessly surfaces the other within through its formal insistence on the reality of conflicting data and the plurality of potential narrative paths through that data. In an era in which the question of who certain people, or groups of people, "really are" is central to public debate, questions of identity are politically as well as personally urgent for each of them. For each, this urgency arises for different reasons, plays out in differently configured projects of life data collection, and offers a differently revised relationship to narrative form. Through readings of their life narratives and the methodological paratexts that accompany them, I argue that they draw from their engagements with humanist empiricisms to formulate a critical data aesthetic.

This aesthetic is characterized by the foregrounding of authorial self-consciousness about acts of narrative selection, a self-consciousness generated by the epistemological ideal of exhaustive collection; a resulting insistence on the inclusion of more data that unsettles the relationship between beginnings, middles, and ends to expose provisionality, of narrative in general and selfhood in particular; and creating a temporality of deferral in which no conclusion, narrative or interpretive, can yet be final. Through their data aesthetics, these writers critique both the presumed transparency of data and the privileging of narrative form as a model for human life. This aesthetic illuminates not only the genealogy of modernist literary forms but also stakes a site in which data's ability to represent the human can be investigated. They, and I, undertake this investigation not only by looking for how the human resists such representation but how the assumptions of individuality, agency, and identity classically associated with humanity are re-cast through it.

Data as an epistemological concept

To begin, I will elaborate a concept of data that goes somewhat against the grain of mainstream perception.² As I write this, it is difficult to open a browser window to nytimes.com or slate.com—or highered.com—without finding the word "data" in at least one headline. Data circulates in public discourse as a synonym for reality, the raw foundation of truly objective knowledge. As Lisa Gitelman and Virginia Jackson observe:

Data are units or morsels of information that in aggregate form the bedrock of modern policy decisions by government and nongovernmental authorities. Data underlie the protocols of public health and medical practice, and data undergird the investment strategies and derivative instruments of finance capital. Data inform what we know about the universe, and they help indicate what is happening to the earth's climate. "Our data isn't just telling us what's going on in the world," IBM advertises; "it's actually telling us where the world is going." (1)

These discourses position data as a crucial representation of the world and as a revelatory mediation of self, selves, and reality. It is supposed to, finally, reveal to us the hidden workings of everything. What, then, is data, and whence comes the power we ascribe to it?

The idea of data collection as a method of and prerequisite for grasping reality stems from the search for a rigorously empiricist representation of the world beyond the self that is at the foundation of Enlightenment thought. Francis Bacon, in his 1620 methodological treatise *Norum Organum* (*NO*), or new instrument, proposes the practice of data collection as a superior route to knowledge. Bacon saw the study of the natural world as helplessly stalled due to reliance on syllogistic methods relying on deduction. Reasoning from prior principles created a sense of internal coherence to every natural process that, while affectively pleasing, ultimately did not account for the world's diversity of phenomena. Bacon argues, "The human understanding, from its peculiar nature, easily supposes a greater degree of order and equality in things than it really finds; and although many things in nature be *sni generis* and most irregular, will yet invent parallels and conjugates and relatives, where no such thing is" (*NO* 22). Bacon envisions data as a corrective to the insurmountable human tendency to assume underlying order when one should instead be confronted by confusion.

Bacon's proposed solution forms the central tenet of empiricism: in order to know the world, we must to return to and henceforth rely upon sensory perception—information recorded as it comes from the world into human perception. When we "restore the senses to their former rank," we may "generally reject that operation of the mind which follows close upon the senses, and open and establish a new and certain course for the mind from the first actual perceptions of the senses themselves" (6). Perceive first, reason later: Bacon sets up an ideal order of operations that temporarily suspends theorizing thought in order to reach a "new and certain course" that will be superior due to its accord with the world as it really is.

As individuals, our perceptions are unavoidably limited by our physical position and our cognitive tendency to rush to "parallels and conjugates and relatives" (22). Thus, we must undertake massive data collection in order to overcome the limits of individual perception and forestall the habit of projecting order onto reality. Because, Bacon contends, "The foundations of experience (our sole resource) have hitherto failed completely or have been very weak" we must now create "a store and collection of particular facts, capable of informing the mind" (78). The "collection of particular facts" is the method Bacon proposes for coming to know and understand reality. This method comes with two mandates: the collection must be exhaustive and it must be exteriorized.

Data collection must aim for exhaustivity³ for two reasons: conceptually, in order to achieve total representation, for only through exhaustive collection can we be sure to overcome our selective, interpretive nature; practically, in order to maximize the material gain that can be leveraged out of an increased ability to predict and control.⁴ As Mary Poovey describes, the Baconian ideal insists that the "entire globe and all of its inhabitants ought to be subject to empirical observation" ("Limits" 193). Implicit in the goal of exhaustive representation is the belief that each existing "particular" (be it thing or being) bears some amount of invaluable potential information. To overlook anything, or to assume one has found the paradigmatic case that will explain all others, is to commit the error of mental projection. The data collector must be willing to record and represent all that she finds. Exhaustivity requires, at least in theory, a subjective shift toward radical receptivity to reality as it is encountered. Bacon chides the squeamish or unduly proper empiricist, "With regard to the meanness, or even the filthiness of particulars, for which (as Pliny observes), an apology is requisite, such subjects are no less worthy of admission into natural history than the most magnificent and costly.... For that which is deserving of existence is deserving of

knowledge, the image of existence" (95). If we desire knowledge of the real, preexisting assumptions about worthy objects of knowledge cannot circumscribe the collection of data. All that exists must be observed, recorded, and represented.

In addition to being exhaustive, a data collection must be exteriorized. The "collection of particulars" (Bacon 81) relies on its literal and conceptual externalization from the human subject in order to disrupt our mental inclinations and extend our analytic capacities. Bacon instructs that we must "properly and regularly [place] before the eyes" the "collection of particulars" (81) once it has been amassed. For, he cautions, "after having collected and prepared an abundance and store of natural history...still the understanding is as incapable of acting on such materials of itself, with the aid of memory alone, as any person would be of retaining and achieving, by memory, the computation of an almanac" (80). In order to make use of the data that has been collected, the human memory must be supplemented by material repositories and visualizations. The desire for data thus necessitates technological and representational innovation, because the requisite "collection of particulars" promises to overwhelm the capacity of any single human memory just as the vastness of the world surpasses the scope of any single eye.

By placing data outside the self, Bacon exteriorizes it both literally and in the conceptual sense that Foucault calls us to question, by constructing it as "something we feel we can know, reveal or interpret and which will give us a foundation" (Colebrook 71). This desire for an unshakeable basis of knowledge is encoded in the etymology of the word "data" itself. From the Latin *dar*, to give, the most literal meaning of data is "given" (Rosenberg 15-16). It is constructed as the bedrock of knowledge, the representational abstraction we need not press beyond or complicate.

While Bacon's method valorizes the figure of the committed and receptive collector, collection is not imagined as an end in itself. At the end of data collection the figure of the collector will give way to the figure of the knower. Writing nearly two centuries further into the empiricist knowledge project that Bacon helped to launch, Pierre Simon Laplace elaborates on the scope of knowledge—and power—that an exhaustive collection of particulars would enable:

Given for one instant an intelligence which could comprehend all the forces by which nature is animated and the respective situation of the beings who compose it—an intelligence sufficiently vast to submit this data to analysis—it would embrace in the same formula the movements of the greatest bodies of the universe and those of the lightest atom; for it, nothing would be uncertain and the future, as the past, would be present in its eyes.

Wendy Chun has named this figure the Laplacian subject, "a sovereign subject capable of 'knowing all'" (109), an idealized subject that Chun further places at the root of neoliberal ideology and the discourse of software because of its claim to total knowledge and thus total power. The imagination of such a subject entails determinist assumptions about the workings of both animate and inanimate life. Laplace's conjecture assumes that there are a set of natural laws that, working together in complex yet predictable ways, are awaiting only discovery to reveal seeming chance for the order that it really is: "All events, even those which on account of their insignificance do not seem to follow the great laws of nature, are a result of it.... In ignorance of the ties which unite such events to the entire system of the universe, they have been made to depend on final causes or on hazard." Properly understood, the universe and by implication all of the lives it contains will be stripped of contingency and its narrative trajectory settled. The end of data collection is assumed to be the revelation of a definitive end of a universal story.

By the mid-nineteenth century, Auguste Comte had extended this version of the empiricist project to include the human. As Lewis Coser summarizes, "Comte's aim was to

create a naturalistic science of society, which would both explain the past development of mankind and predict its future course," holding that society "is subject to basic laws just as is the rest of the cosmos, even though it presents added complexities" (3). As Bacon condemns the tendency to parallels and conjugates and Laplace decries explanation via final causes and hazard, Comte rejects the assumption that human social life is "always exposed to disturbance by the accidental intervention of the legislator, human or divine" (2: 215).

Although Comte did not believe that clear-cut laws of his proposed social physics would be immediately graspable, he did contend that they ultimately would be. At that time, humanity would find "social phenomena, like all others, [subject] to invariable natural laws, which shall, as a whole, prescribe for each period, with entire certainty, the limits and character of social action" (2: 240). Thus, by the time the writers of this study are experimenting with data collection as a mode of representation, they are participating in an unfolding data discourse that posits the human as amenable to empiricist inquiry in the same determinist terms applied to the world of material.

Comte's position is extreme, and few if any social researchers would hold the same today. Yet, in recent enunciations of the dream of exhaustive data collection we can hear echoes of this desire for and presumption of predictive certainty. On January 11, 2007, computer scientist Jim Gray addressed the Computer Science and Telecommunications Board with a vision of "the fourth paradigm of scientific research," which is driven by the collection, curation, and analysis of massive sets of data. Experiment, theory, and computation (what Gray names as the three preceding paradigms) are being supplanted by data collection as the primary method of scientific investigation. Gray's "dream of establishing a 'sensors everywhere' data infrastructure" (Hey xv) is the Baconian ideal and Laplacian subjectivity technologized and imagined as a realizable goal. This is a direct result

of centuries of empiricist theory and desire, for as one of Gray's recent respondents puts it, "Data is the result of incremental advances in empiricism-serving technology" (Wilbanks 211). These new technologies have brought us closer to exhaustivity of collection for all domains, natural and human: "Data comes in all scales and shapes, covering large international experiments; cross-laboratory, single-laboratory, and individual observations; and potentially individuals' lives" (Hey xiii). The bounds of data's potential to generate knowledge are, again, being promoted as limitless.

To summarize, the connection that Bacon, Laplace, and others make between exhaustive data collection and ultimate knowledge is the basis of what I am calling the epistemology of data. The epistemology of data is the belief that reality is most accurately represented as a collection of data points. This belief imparts a sense that data collection is imperative if reality is to be known and understood. Data's epistemology is empiricist in that it reifies and relies on the recording of sensory perception. It is realist in that it places primacy on existence rather than consciousness and assumes that there is a reality to be recorded and understood, even if imperfectly. The idea of this reality is attended by an aspiration to a-theoretical understanding and universal truth, and the assumption that such a thing is possible. Because of this assumption, "the apparent empiricism of data-driven research" is often popularly seen to be epistemologically superior to methods, such as those typically employed by humanities scholars, that insist on "context-dependent interpretation and the inevitable 'situated-ness' of the researchers and their aims" (Schöch). Data, in its raw form, is seen as the closest thing to a complete proxy of reality as we imagine can be objectively attained.⁵ Arguably, the epistemology of data is also determinist in that the classical empiricist project as expressed by Laplace assumes the reality of causal, predictive

law. Given the recurrence of determinist aspiration, it is fair to say that data collection always at least engages with the legacies of deterministic thought.

Data as a representational form arises from and works in tandem with a broad cultural assent to empiricist values. To use data collection as a method may seem to require signing on to the whole agenda, totalizing and determinist and anti-theoretical. Yet, as Amanda Anderson has suggested in her study of scientifically minded nineteenth-century British writers, that need not be the case. We can instead look for and create models of engagement that see the ideal of objectivity as "an aspiration more than a certainty, one connected to the ongoing achievement of many social and political goods, including knowledge of social conditions and ills, and practices of deliberative democracy and cosmopolitanism" (32-33). Objective detachment is a practice, not "the telos of human practices or experiences." As a practice, it can also be the site of the "persistent joining of ethical and methodological questions" that Anderson identifies as characterizing "speculation across the disparate intellectual fields of science, social science, and art" (6) in the period she studies. Many literary scholars have recently argued that this is no less true in the late nineteenth and early twentieth-century United States.⁶ Data can only displace our narratives through an external epistemological equation of the transcribed point with a more objective reality, and the highest value placed on objectivity.

While it is undeniably freighted with these legacies, data's key formal feature—its dual existence as point and collection—agitates consistently against deterministic conclusions and naïve empiricism. Data begins as a data point—whether that point is a measurement, description, test result, case study, or life story—but it is understood never to stand alone but to be a part of a heterogeneous collection of formally equal points. Prior to analysis, data points exist in a flat order, parallel, each one as real as the next. These raw,

collected points hold sway as more real than any interpretation that arises from them because they are understood as further removed from human intervention, our problematic tendency to rush them into sense-making frameworks. Yet, in the perpetual meanwhile of continuing collection, using data means attempting to make sense nonetheless. Data's conceptual alignment with ultimate objectivity animates our desire for it, but its equation of reality with the entirety of its collection forces us to make subjective decisions about how to approach, manipulate, and visualize it. As this study will demonstrate, the epistemology of data becomes especially visible at certain historical moments, as advances in technology for data collection, storage, retrieval, analysis, and visualization coincide with particularly urgent questions of the real, generating a flurry of data discourse that culminates in a revised relationship between data, narrative, and reality.

Although data, information, and fact are often used synonymously, based on this conceptual history I argue for a distinct meaning with important formal and epistemological ramifications. Specifically, I emphasize that data is simultaneously point and collection: discrete notations of perception collected in order to exhaustively represent reality. Literally, "data" is the plural of datum, "an item of (chiefly numerical) information, esp. one obtained by scientific work, a number of which are typically collected together for reference, analysis, or calculation" (Oxford English Dictionary). More fundamentally than it is quantitative, data is collective. Data becomes legible as data through the specification of a method of collection. As sociologist Roberto Franzosi explains, "Typically it is a specific methodological school that confers the status of datum to specific types of evidence. Data, in other words, are the result of specific types of data collection techniques" (186). As these definitions highlight, data is functionally inseparable from collection. Data's grammatical plurality is its implicit collectivity. The colloquial slippage from plural to singular is a telling

elision of its conceptual complexity and an expression of the pervasive belief (or desire) that data, all by itself, *means* and means definitively. Once put into a collection, though, each datum holds an equal status, an equal claim⁷ to representing a small piece of actually existing reality. Further, these equally real small pieces are predicated by and represent difference itself. As philosopher of information Lucian Floridi notes, "a datum is ultimately reducible to a *lack of uniformity*" (emphasis in original).⁸ There would be no data to perceive, record, or represent if difference did not define the "real world" (Floridi). Data collections are thus inevitably plural, heterogenous, and full of conflicting potential information, and without the interventions of probability and statistics, these collections would yield very little in the way of clarity, prediction, or narrative. So while the popular tendency is to think of data as a solution to uncertainty and ignorance, its proliferating points, when taken seriously as equally important markers of actually existing reality, agitate against stable knowledge, blanket description, and clear trajectories of development.

Thus, data does not neatly align with information, which can be roughly defined as data plus meaning (Floridi). Information, unlike data, is meant to convey a specific meaning. Claude Shannon, generally considered to be the originator of information theory, proposes that information can be understood as fundamentally made up of two parts: signal and noise. Signal is the goal of conveying information, and noise is what adds superfluous and misleading information to the signal. It could be said that those who seek, and believe they find, a narrative in collected data, as market analysts and the software developers of Narrative Science seek to do, make the same distinction. Yet, the distinction between signal and noise is an intervention and a mark of subjective choice, an act of selection that overrides the formal equality of the data point and facilitates interpretation. Noise disrupts the intentionality of signal, which is exactly what Bacon intended data to do: to hit pause on

our inclination to apply expected narratives to new information. The difference between a data collection and a message (or signal) is that in a data collection, every point is, at some level, a signal as valid as any other, a bearer of potential information about actual reality.

This study's concept of data also does not neatly align with the theory and practice of statistics, "the mathematical tool for analyzing experimental and observational data" (Porter 3) that burst forcefully onto the scene of interdisciplinary quantitative methods during the period from 1890-1930 and is today "enshrined by public policy as the only reliable basis for judgments" and "seen in many scientific disciplines as indispensable for drawing reliable conclusions from empirical results." Statistics attempts to discern a "real" or "best fit" (and narrative-like) line for collections of heterogeneous data points using concepts of probability. Although, as Porter uncovers, statistics historically begins as an alternative to deductive sociology, it works to reduce the difference represented by the data collection. In statistics, the significance of any given point is a matter of calculation. In a data collection, significance is intrinsic and inherent. To plot a line through data is to choose which are most significant, again an act of subjective intervention. When data collection is understood as being distinct from statistical methods and forms, the line is exposed as provisional and a multiplicity of other lines comes into view. Because of each point's intrinsic significance, a full data set lays out not a trajectory but trajectories, messy potential paths rather than one predictable destiny.

As well, despite their inextricability, the concept of data is separate from the form and mechanics of the database. As Lev Manovich explains, "In computer science, database is defined as a structured collection of data. The data stored in a database is organized for fast search and retrieval by a computer and therefore, it is anything but a simple collection of items" (218). Manovich's definition emphasizes structure and computational manipulation as

the key characteristics of a database. Data precedes and is therefore other than the database, and as a concept of reality and representation it exists outside of computers as well.

This understanding of data is not data's popular reputation. Most casual readers of the types of news stories mentioned at the beginning of this section probably do not approach claims based on data with quite as skeptical and sophisticated sense of the selection choices that enable the telling of a compelling story as if it were the single, clear story. Yet, atypical readers, who from direct experience or intuition find themselves wondering just how these results are arrived at, do exist—and this study examines a few of them. As Gillian Beer proposes, "More is to be gained from analysing the transformations that occur when ideas change creative context and encounter fresh readers. The fleeting and discontinuous may be as significant in our reading as the secure locking of equivalent meanings. Questions can change their import when posed within different genres" (81). While many see data as the raw material for statistical generalization, these collectors formulate it as the challenge to any single generalization. In their fascination with and commitment to reckoning with the formal representations of data collection asymptotically approaching exhaustivity, the writers examined here pursue a dissident representational potential of empiricism.

Data as a representational form

Bacon's "collection of particulars" taken to its Laplacian conclusion would create an externalized representation of the world in its full, pre-interpreted complexity. From this exhaustive and externalized representation of the world through data would arise, sans interpretation, truths about our world that are inaccessible to the individual human eye or mind. Thus, from the time Bacon theorized it as the foundation of the scientific method,

data has been a representational project with a particular goal. It is a way of coming to know the world by being able to see it, mediated through time- and place-bound points of information that are then unmoored from time and place in order to allow us access to a reality that encompasses all times and places.

Data is not the world, though, it is a medium through which we represent the world, and as a medium it has particular formal properties. My argument is that this medium drives an aesthetic, a data-driven way of seeing the world, and this aesthetic alters our perception via its insistence on the concrete heterogeneity of every existing entity and each existing entity's claim on our attention, acknowledgement, and consciousness.

The epistemological effects of this conceptual shift can be better understood by reading the formal effects it entails for representation. Specifically, data's formal and epistemological tie to collection puts pressure on narrative as a representational form. The effects of this pressure are not solely or simply aesthetic. Because narrative is a kind of epistemological model for reality, implicitly staking claims about causation and relationship, the status of narrativity is a register of concepts of self, agency, and social order.

Accordingly, I use the analytic of narrative in this project in three senses: 1) as a traditional literary form, the realism of which is being challenged and re-formed during this period and which individual texts may be read to seek, resist, and revise; 2) as an intervention in the representation of lived experience through which we can read for ethical arguments and engagements; and 3) as an act of self-representation that not only represents but in the minds of many critics and theorists constitutes self.

While data is driven by collection, narrative is, traditionally at least, driven by selection—the designation of an ending and the exclusion of all points that do not lead directly to that ending. Donald Sutherland, in his reading of *Three Lives*, provides a useful

definition of the traditional literary narrative: "Simple narrative structure is when events are shown as leading from one to the other in temporal and causal succession until some conclusion...is reached" (263). This follows a concept of narrative that draws from Aristotle's aesthetics of tragedy: a tragedy was that which had a beginning, a middle, and an end. To achieve this formal coherence requires selecting for the most important points of action leading through that progression, "for a thing whose presence or absence makes no visible difference, is not an organic part of the whole" (Poetics 8). 11 In this sense, data and narrative are poles of representation: data becomes meaningful through collection, while narrative only becomes meaningful through selection. Most literary narratives, to be sure, will exceed such a model in multiple ways, but the degree to which this excess is selfconscious and explicit, I suggest, offers a lens on how the narrator is assembling, or struggling to assemble, a represented reality or self. Narratives that align more closely with the Aristotelian model, in my reading, align more closely with concepts of determinism, such as destiny, teleology, formula, causality, and prediction. Narratives that depart more obviously and more self-consciously from the Aristotelian model indicate a narrator who is grappling with the question of method, the logic and justification for any act of selection and interpretation, as they try to form a narrative that will contain the multiple potentials of the data collection.

Narrative also indicates an intervention in the representation of lived experience, whether or not the experience represented actually happened. Narrative in autobiography, as in history, creates meaning "by its imposition, upon events that are presented as real, of the formal coherency that stories possess" (White 24). As it purports to represent actual experience, autobiography's narrative is its distance from "pure chronology...the symbol not only of order but dissolution as well, the sheer unredeemed successiveness of ticking time

that destroys life and meaning" (Eakin 36). Narrative is not something that exists in time; it is the creation of the narrator. White's comparison of the annals form and historical narrative forms illustrates the difference I perceive between a data-driven form and a more narrative, developmental form. In a narrative, "The events must be not only registered within the chronological framework of their original occurrence but narrated as well, that is to say, revealed as possessing a structure, an order of meaning, which they do not possess as mere sequence," (9), while the annals form "completely lacks this narrative component, consisting only of a list of events ordered in chronological sequence." The annals can be seen as a precursor to the life or history as data set: a collection of points ordered only by an external container of some type (a frame of time, the human life of a historical or imagined individual, an immigrant neighborhood). In both literary and journalistic realms, annals-like forms re-emerge during the period of this study.

As White asks of narrative history, "What wish is enacted, what desire is gratified, by the fantasy that real events are properly represented when they can be shown to display the formal coherency of a story?" I ask here, what wish is enacted by the desire to represent the world and self as data? As the beginning of an answer, I suggest that the moral order typically attributed to data forms is a desire for reality and the fantasy that reality, when it is finally real enough, will supersede the necessity for moral judgment. It will obviate the need to construct narrative because it will obviate interpretation. What data-driven modernists reveal and remind us, though, is that this fantasy is not only ethically pernicious but empirically unviable. Although the act of collection can act as a productive postponement of interpretation, and while the form of collection forces us to change our procedures of interpretation. It is important to keep in mind, though, that the desire for an a-theoretical

reality is an extreme statement of the aspirations of data as a representational project that can exist in varying degrees and multiple critical contexts. As we will see, Du Bois's search for a less theoretical, more empiricist approach to African American life is profoundly empowering.

I build my method of reading for narrative particularly from Priscilla Wald's Constituting Americans and from Michael Elliott's The Culture Concept. Wald describes her method as "attend[ing] to disruptions in literary narratives caused by unexpected words, awkward grammatical constructions, rhetorical and thematic dissonances that mark the pressure of untold stories" (1). For the works I consider, those untold stories are generated by the epistemological pressure of data: the knowledge that there is a data collection of self that does or could exist, accompanied by some degree of assent to the idea that it is more real than individual memory, some desire to know the real, and some commitment to devising methods of analyzing the data that bring us closer to that real. Wald also lays out the political significance of narrative form in a U.S. context, finding that works such as The Souls of Black Folk and The Making of Americans "posit a connection between creating a narrative and struggling with the terms of a cultural identity, a connection that turns aesthetic creation into a political gesture" (174). Elliott's study of the relationship of late nineteenthcentury realism and the emerging discipline of Boasian anthropology also models the method of reading for narrative form as a means of gaining insight into broader questions of social relationship, because "narratives do more than place events into chronological sequence; they arrange those events according to patterns of causation in a way that enables the author and reader to create order out of the chaos of everyday life" (xxiii). Specifically, he contrasts Boasian anthropology with prior models that emphasized a progressive narrative of civilizational development rather than a concurrent plurality of individual

cultures, and argues that forms of episodic narrative align with the shift toward a pluralistic worldview. Elliott argues "that the shift from cultural evolution (which understood culture as a uniform, global process) to Boasian culture (which understood culture as an aggregation of the practices and beliefs specific to a particular group) involved a radical change in the narrative organization of knowledge about group-based alterity" (xxiii). Through these narrative forms, readers were asked to imagine cultures other than their own as parallel realities rather than earlier stages on a trajectory of development. Of particular salience is his assessment that this narrative shift is driven by an epistemological emphasis on data collection. He finds that the crucial disciplinary intervention of anthropologist Franz Boas was "to shift the emphasis of his discipline away from a preoccupation with arranging peoples into narratives of development and toward the accumulation of cultural data produced by a single temporal moment" (xxvi). As Elliott goes on to demonstrate, prioritizing accumulation over selection disrupts the production of narratives with a beginning-middle-end structure. The desire for data-like, discrete points introduces a disordering force into narrative form that ramifies into revised models of sociality and human development.

In the course of these readings I argue that this unsettling of narrative is especially significant in the context of representing and understanding identity. ¹² Narrative coherence is a feature of essentialist concepts of identity. In the U.S. context, narratives of racial identity are a central and troubling instance of the potential violence of insisting on such coherence. Laura Doyle writes:

Race is a narrative concept. Whether or not it becomes the basis for social hierarchy or gets configured in binary oppositions, 'race' is at base the idea that characteristics are passed from one generation to the next through time; it is the claim that behavior in the present and future is predictable because it is based on characteristics inherited from ancestors who lived in the past. Races or species may evolve, as scientists have argued for a century and a

half, but to say so only reinforces the diachronic principle on which race depends. (250)

Doyle's argument for the relationship between a certain concept of narrative form and concepts of racial identity is one that I here extend to a range of social identities. By reading for a narrator's relationship to narrative, we can also read for their relationship to concepts of identity.

To describe the alternate formal dynamics of the data point and data collection, I turn to the insights of new media theory. Following the insights of Jessica Pressman, I understand "modernism [as] centrally about media" and the "late decades of the nineteenth century and the early decades of the twentieth century [as] certainly the classical period of our contemporary technological age" (4). Data is not only a medium in and of itself, it underlies new media, conceptually and literally, a connection that necessarily locates the works I read in a wider historical lens and aesthetic spectrum and opens avenues of inquiry into how these forms anticipate, critique, and contextualize forms we now associate with the digital. Thus, I also draw analytical insight and descriptive vocabulary from theorists Lev Manovich, N. Katherine Hayles, Wendy Chun, and Timothy Lenoir. Taken together, they offer an approach to understanding data's relationship to narrative by connecting it to the history of cultural production, elaborating its introduction of parallel forms through readings of the materiality of the database, and discussing its subjectifying effects as a medium.

Data's relationship to new media is not exactly causal, but it is also not coincidental. Manovich suggests the connection but does not pursue it as he notes, "Mass media and data processing are complementary technologies; they appear together and develop side by side, making modern mass society possible" (23). Making no attempt to diagnose chicken and egg, Manovich simply notes that technologies of data collection, storage, retrieval, and analysis (themselves preceded by an imaginary of a world exhaustively represented as data) are

somehow concurrent with a shift in cultural production. New media, in his view, emerge at the crux of technological capability and epistemological need to navigate an "increasingly dense information environment." This results in "two opposing goals of new media design," or two different aesthetic routes through data: either "immersing users in an imaginary fictional universe similar to traditional fiction" or "giving users efficient access to a body of information" (17). While Manovich's argument refers specifically to computer-based forms such as the "search engine, Web site, or on-line encyclopedia," I identify the same tension in narrative more broadly, as a formal structure that is not technology dependent.

As Laplace articulates and contemporary claims on behalf of data often imply, 14 the envisioned ends of data collection are for prediction and knowledge to coincide, for an underlying narrative to be revealed. But while those ends are perpetually deferred until a future when exhaustive representation through collection has been achieved, a different kind of story emerges. Simply put, narrative looks different through the lens of data. It looks more contingent, more provisional, and less like what we would usually recognize as narrative because the epistemological commitment to collection complicates the process of selection, or the exclusion of points deemed insignificant in light of a certain, predetermined ending. Instead, through its conceptual privileging of collection over selection, data generates aesthetic forms that emphasize parallelism and the co-presence. Timothy Lenoir offers the following definition of parallelism/serialism in formal terms: "Seriality is exemplified in narratives, routines, algorithms, melodies, timelines; parallelism is exemplified in scenes, episodes, harmonies, contexts, atmospheres, and images. Parallelism foregrounds presence, simultaneity, co-occurrence." (xxvi-vii). The parallel/serial duo underlies every representational form, but one or the other dynamic can predominate. The data collection as a form emphasizes parallelism. Each data point exists in a formal state of parallelism,

representing an actually existing reality and exerting the conceptual force of equal importance and potential meaning. As Manovich describes, "Many new media objects do not tell stories; they do not have a beginning or end; in fact, they do not have any development.... Instead, they are collections of individual items, with every item possessing the same sequence as any other" (218). The conceptual force of commensuration and copresence inherent to data collection agitates against the legitimacy of any act of selection, complicating the methodological procedures through which we move from data to meaning.

The psychological, social, and political potentials for the affects, agencies, and ethical capacities of the self are often conflated with the coherence of its narrative form. Coherence is a term that has a different resonance in social science-oriented and literarily oriented scholars, and these resonances often converge in the area of life writing studies. As the editors of the recent collection *Beyond Narrative Coherence* summarize from an interdisciplinary perspective,

The coherence paradigm generally implies that (i) good and competent narratives always proceed in a linear, chronological way, from a beginning and middle to an end, which also constitutes a thematic closure; (ii) the function of narrative and story-telling is primarily to create coherence in regard to experience, which is understood as being rather formless (which may be understood as a merit or disadvantage of narrative); (iii) persons live better and in a more ethical way, if they have a coherent life-story and coherent narrative identity (or, in contrast, narrative is understood as detrimental because it creates such coherence). (1-2)

To take one example of the investment in narrative coherence in a literary context, György Lukács bemoans the formal shift between narrative and description in his 1936 essay, "Narrate or Describe?" He argues that the descriptive turn represents an abdication of authorial responsibility to select and interpret in order to make the underlying meanings of a story, and thereby the direction of history, clear. The kind of collection and transcription

valorized by data epistemology produces forms that, for Lukács, would be seen as another sign of social decay due to capitalism, another relinquishment of critical capacity.

Narrative in the age of data, due to its increasing emphasis on collection and foregrounding of formal contingency, does not offer this kind of coherence and thus has often been read as a crisis of the self and/or the social. Just as the collected, parallel Life Stories displace any vision of a unified narrative of nation, the individual life as a collection of equally meaningful points embodied in *Three Lives* displaces any coherent, developmental narrative of self. The effects of this displacement are often read as failure to attain coherent narrative selfhood, due to being excluded from a supposedly common narrative of American identity (as in most minority autobiography), forcibly annexed to the U.S. nation (as in the case of Native American and Filipino narratives), or having lost a clearly marked position within it (as in *The Education of Henry Adams*). This conclusion overlooks the potential for narrative to become differently coherent and for this new coherence to give rise to new selves. I argue that what we find in these life narratives is not a lack of narrative but a revised relationship to narrative as a representation of reality. These texts' partially realized desires to defer narrative, to complicate narrative, and to highlight the selective, intervening act upon a wealth of experience that narrative always is suggests a new conceptualization of the self and the social. Mark Freeman's concluding remarks to Beyond Narrative Coherence provide an apt assessment of the goal in reading for narrative in these texts. He offers, that the critical "challenge at hand is neither to move beyond narrative nor beyond coherence. Rather, it is to find forms of narrative and modes of coherence that move beyond—well beyond—the classical model in order to do justice to reality, in all of its potential unruliness and beauty, violence and horror" (184). By reading for processes of constructing narrative amidst the data episteme in modernist life writing, I argue that we can see the struggle or refusal to

move from collection to selection as evidence that the disordering force of data-driven imaginations of reality are also re-ordering forces, and that these orders suggest new models of critical practice and social relationship.

Modernism's data aesthetic

From a broad historical perspective, the rise of data as a mode of understanding the world and the creation of modern selfhood are intertwined, as pervasive empiricism drove technological and social change that altered the course of human lives. Ivor Goodson contextualizes the modern, individualized selfhood that forms the basis of the data-driven self within the long and entangled histories of empiricism, industrialization, and the modern nation-state:

In general, the contemporary, individualized self is a product of modernism, accompanying the development of the new industrial economies which developed from the eighteenth century onwards, and the nation states and welfare states which developed subsequently. The social science paradigms that grew up alongside these developments reflected a belief in object empiricism, an Enlightenment quest for laws of human nature. The focus of these social scientific quests were the less rooted and communally bound individuals who accompanied the modern state. Social science objectified and quantified these individual members as the modern state sought to control and manage its population. (23-24)

As Goodson here suggests, the objectification and quantification of the self is both a logical epistemological outcome of the extension of empiricism to the understanding of human life and an effect of the social anxiety produced by more migratory life patterns brought on by economic and political change. The late nineteenth- and early twentieth-century United States is a prime example of this historical generalization, and many of the works of this study arise directly from histories of geographic mobility and the national politics of seeking to control its effects.

I bring together the terms "data-driven" and "modernism" to suggest a critical framework for apprehending the historical, formal, and epistemological uses of data. In present usage, "data-driven" is used to denote a process of decision-making that purports to look to data for its direction and justification, implying that decisions can be made more effectively and without the danger of bias or misguided tradition by looking to data. I put a different twist on the term to call attention to how imagining reality as a vast data collection "drives" that imagination toward certain formal parameters. Data-driven narrators, in my definition, commit to the form of data first and then see what narratives result. 15 In this way, they highlight how data complicates rather than clarifies our narrative representations of and projections onto reality. By "modernism," I mean a self-conscious relationship to historical change and its effects on subjective experience in which enthusiasm and skepticism co-exist. Thus, by "data-driven modernism," I mean a critical relationship to an "increasingly dense information environment" (Manovich 23) of the late nineteenth- and early twentieth-century United States. This relationship manifests in particular sensitivity to the role of data in representing, understanding, and shaping human life and is elaborated through aesthetic experimentation, particularly with narrative. I propose that data is best understood as a modernist aesthetic for reasons that are both historical and conceptual. Understanding "modernity" as a capacious term designating the cultural self-consciousness that arises from experiences of mobility, encounter, and circulated accounts of those experiences that gains critical relevance only when its conceptual underpinnings (including Enlightenment empiricism) are considered alongside its material histories of domination, exploitation, and nationalism necessitates attention to both the conceptual and the historical. Data collection, as fundamental to both empiricism and imperialism, is modernity's foundational representational form. Further, it is a form that has an especially prominent role in U.S.

attempts to represent and control the minoritized and economically precarious social groups created by early twentieth-century modernity. The representation of human lives through data in the late nineteenth- and early twentieth-century United States is another modernist "grounding of the aesthetic in an objectification of the other" (Nicholls 4). This historicization of modernism draws from the critical pathways opened by the work of scholars such as Andreas Huyssen, Susan Stanford Friedman, Douglas Mao, Rebecca Walkowitz, and Werner Sollors, who have challenged scholars to consider how our methodological concatenation of text and context must shift when we loosen the association of modernism with a few representative works and seek the "effects of synergy or friction [that] result when the many, sometimes contradictory criteria of high modernism are tested against less evidently experimental texts" (Mao & Walkowitz 2).¹⁶

Broadly, my intervention in modernist studies is to argue that the data point and the data collection need to be added to the roster of modernist aesthetic forms. While there are clear similarities between the data point and the data collection to other aesthetic techniques typically connected to modernism and the representational technologies of the early twentieth century—including the fragment, the montage, and the impression—I argue that the data point proposes a set of distinct formal properties and a distinct epistemology of the real. Fragmentation, imagined either as the modern destruction of traditional coherences or as a practice of defamiliarization intended to critique conventional representation and provoke fresh perception, shares data's engagement with the collection and assemblage of pieces but also implies a less-than wholeness that the data point, as a self-contained if highly compressed whole bit of information, does not share. Montage, or the juxtaposition of images and other representational fragments, resembles the work narrator/data collectors, constrained to the contents of the collection and compelled to devise a route through it. Yet

the practice of montage is fundamentally different than the collection of data points, because although it is a form of gathering it is still directed toward the telling of a particular story (see Wallaeger) rather than committed to gather exhaustively within a set of chronological or physical parameters, with no regard to effect. The impression is perhaps most similar, and in some usages nearly equivalent. Like the data point, the impression is a kind of whole bit of information, but it does not share data's epistemological claims to objectivity. As Jesse Matz has detailed, in terms of its informational content, the impression is overdetermined, variously connoting a type of raw sensory data and extreme subjective reaction. Thus, when Virginia Woolf proposes in "Modern Fiction" to the modern novelist, "Let us record the atoms as they fall upon the mind in the order in which they fall, let us trace the pattern, however disconnected and incoherent in appearance, which each sight or incident scores upon the consciousness," she is drawing on an incipient data aesthetic but not fully engaging with data as an epistemology. She is not imagining the narrator as a data collector but more as an exceptional perceiver who is tasked with tracing a pattern rather than assembling an exhaustive representation.

Many of the formal features I claim for the data aesthetic—such as the abundance of detailed description, repetition, lack of narrative structure, a focus on social others—have also been attributed to naturalism, realism, and postmodernism. Given that these, too, are major aesthetic movements of the data-oriented nineteenth and twentieth centuries, some level of response to and engagement with the concept of data is to be expected and some formal overlap as well. What I think differentiates the writers and texts of this study is a critical—meaning neither over-credulous nor over-skeptic—stance toward the epistemological ends of data collection. Data-driven modernists are willing to take the thought experiment of data collection further before they offer a final conclusion or despair

of reaching one. I see data collection as one of the methods and forms included in David Harvey's assessment that "modernism, in short, took on multiple perspectivism and relativism as its epistemology for revealing what it still undertook to be the true nature of a unified, though complex, underlying reality" (27). They are obdurately receptive and committed to continuing collection, which makes them willing to encounter and proclaim the deep strangeness that a data collection approaching exhaustivity reveals as real. Realism and naturalism are both typically more associated with conventional narrative form.¹⁷

Postmodernism, conversely, is associated with the a priori preclusion of narrative potential.¹⁸

The type of modernism I argue for arrives at its break with narrative convention through a critical yet committed search for what is real via data collection.

In the readings that follow, I argue that the forms of the data point and the data collection constitute a modernist narrative aesthetic evidenced in three broad ways.

Modernist data-driven narratives

- 1) are fundamentally constructed through collection rather than selection, introducing an aesthetic of inclusion that foregrounds contingency and relationality and displacing the ends of narrative in a temporality of deferral;
- 2) feature narrators who are self-conscious about the relationship between narrative and reality, often explicitly reflecting on the tension between data and narrative in this form of representation; and
- 3) through formal and/or thematic reference to the cultural and scientific concepts of data, leverage the conceptual heft¹⁹ of data to complicate its relationship to narratives traditional conceived.

The types of data point collected in each of these narratives vary widely, but each text lays out a method that governs the scope and practice of collection. Their collective forms and formal approaches become legible as data through their paratexts' proposal of collection as compositional method. The introductory and commentary materials placed around the life narratives examined in this study position them as data-driven forms, undertaking projects of exhaustive self-representation. Each articulates a method for collecting discrete points of

some kind (description, event, narrative) as data of a life or lives, explicitly counterposing the resulting form with more traditional forms of narrative. None of these writers propose a scope of exhaustivity that includes every detail, every minute, every day of a life, but each seeks a life narrative that employs an aesthetic of inclusion and explicitly privileges collection over selection. This may surface in the presence of more literal and recognizable representational objects of data collection, such as forms and lists (as in Du Bois's *Philadelphia Negro*) or in the more recognizably modernist mode of parataxis (as in Stein). This methodological framing and these formal features put them into conversation with the epistemology of data.

As Liesl Olson has noted, "plotlessness is modernism's great revolution" (21), and I argue that these underlying methodologies of data collection are part of the reason why. In classical narrative, structure and meaning are governed by the ending or projected ending. The end is the point in relation to which every other point is evaluated as meaningful or irrelevant. The selection of an ending is a foundational act of selection that allows and justifies the selection of a certain set of other points in the story among the many potential points. It is often the unexamined but utterly determinative cognitive act of framing, our stay against a proliferation of stories and meanings, and it is often more or less entirely naturalized. The conceptual force of data erodes this hierarchy of meaning by increasing our awareness of the arbitrary nature of a designated ending point and heightening our self-consciousness about the act of selecting points to lead up to that ending. Data, imagined as an exhaustive surround of information being generated by every breath, every moment, every day, both on an individual and on community, national, and global levels, calls attention to the internal diversity of the points, be they people or moments of an individual's day. Within any data collection, there are points that contradict any given narrative trajectory.

By changing our perception of the reality that narrative is meant to represent, data turns narrative into an assemblage. Gary Wolf's description of a Quantified Self practitioner interacting with his 25-year archive of ideas he has had, "with its million plus entries," illustrates the subtle but important effect of this change. As Wolf describes, "He navigates smoothly between an interaction with somebody in the present moment and his digital record, bringing in associations to conversations that took place years earlier....What for other people is an inchoate flow of mental life is broken up into elements and cross-referenced." The practice of recording requires conceptualizing life as discrete points and the experience of life as an "inchoate flow" is fundamentally shifted to a series of encounters with discrete "elements," being recalled and combined in multiple ways across multiple times and spaces. While this example refers to a computer-based data collection, I hold that this discretizing effect obtains whether or not the tools and storage are digitally based, because it comes most fundamentally from imagining reality as the collection of equally potentially meaningful points. Jane Addams, in the "Preface" to her autobiographical work, *Twenty Years at Hull Honse*, articulates a similar self-consciousness as she reflects,

It has also been hard to determine what incidents and experiences should be selected for recital, and I have found that I might give an accurate report of each isolated event and yet give a totally misleading impression of the whole, solely by the selection of the incidents. For these reasons and many others I have found it difficult to make a faithful record of the years since the autumn of 1889 when without any preconceived social theories or economic views, I came to live in an industrial district of Chicago. (vii-viii)

She places primary value on the ability of her writing to convey reality fully. Forming an "accurate report" and "faithful record" is her stated goal, and her concern is that "solely by the selection of the incidents" she might create a "totally misleading impression of the whole." She is, at base, concerned with the power of a narrative frame to distort reality, and her sense of difficulty suggests she lacks a narrative form that she can conceive of as both

capturing the whole and be a valid life story. The view of all phenomena—natural processes and human beings alike—as being first a collection of facts that must be observed and recorded in order to be understood renders each an assemblage because it shifts perception to focus first on "parts" and makes any "whole" something that requires construction or interpretation, a self-conscious step away from the raw reality of collected facts. Committed to this perception as the most real, the data-driven narrator begins to conceive self as assemblage.

Throughout this study, I characterize the self narrated in self-conscious relationship to data collection as an assemblage, because assemblage offers a critical vocabulary for relationality and non-essentialist being. Assemblage theory sees the human as data does: one point in a contingent collection of presences, variably contextualized and with shifting potentials for agency that is never absolute. Assemblage describes a dynamic of relationality that surfaces when a data-driven concept of self and social reality is adopted. As Manuel DeLanda puts it, assemblages are "wholes whose properties emerge from the interactions between parts." These interactions are built on relations of exteriority: although parts combine to form wholes that exceed the properties of individual parts, these wholes do not displace the properties and potentials of individual parts. As Jane Bennett explains, "Alongside and inside singular human agents there exists a heterogeneous series of actants with partial, overlapping, and conflicting degrees of power and effectivity" (33). This contextualization is part of the epistemological shift enacted by a data-driven perception of the world. Insofar as they forward a flattened ontology, data collections as assemblages are part of theorizing the posthuman, which I gloss, following Matthew Taylor, as an empiricist reckoning of the human as material entangled with materiality, an understanding of reality in which the "illusion of ontological liberation" for human beings is exposed and "there is no

masterly isolation to be won from the environment, no self-constitutive cleavage from context" (5). The data aesthetic, emphasizing collection and deferring or pointedly complicating acts of selection that would allow a traditional narrative to arise, promotes this sense of contextualization, because through it the world is represented as made up of discrete and equally real points whose presence must be empirically acknowledged. Approaching lives as assemblages of data emphasizes their empirical reality and their formal contingency, as well as their annexation by technologies of data collection for governmental, scientific, and economic purposes. For example, the concepts of assemblage and relations of exteriority allow us to think through the definition of race Du Bois offers in *Dusk of Dawn*: "the black man is a person who must ride 'Jim Crow' in Georgia" (153). Blackness is a quality that emerges from the assemblage of a person, a Jim Crow train car, and the state of Georgia. This formulation of race presents a sharp contrast from his early career descriptions of the African American as "a seventh son, born with a veil" (*Souls*), which suggests race is an interior, inherent quality that permanently demarcates individuals.

Narrative dynamics of assemblage arise when the imperative to collect data is conjoined with increased narratorial self-consciousness about the superior, if ultimately inaccessible, reality of the collection in its entirety. Narrators who seek to record reality in the form of data points face a contingent array of narrative possibilities and must reckon with their agential role in turning data into meaning. As Richard Powers has described, an assemblage understanding of narrative denaturalizes coherence as an innate quality and instead highlights the agentive, constructive act that can and does allow any two data points to be read as forming a narrative. Powers explains, "If a story is a series of causally linked actions and consequences, then stripped down to its fundamental essence, a narrative could be defined as any sequence selected for its significance. *This happened, and then this followed*: the

simple act of choosing to relate these data in some order endows them with a second order of highlighted or implied meaning" ("Lakehouse"). Meaning does not pre-exist the act of juxtaposition. Instead, the act of juxtaposition, the selection and arrangement of data points, drives meaning. Awareness of this act intervenes in data's presumed equivalence with transparent, a-theoretical reality. The narrator is unavoidably revealed as the selector, juxtaposing elements that could have been arranged otherwise; the proximity drives meaning that calls attention to itself as contingent upon this assemblage.

To propose to narrate a life, whether that life is literally or figuratively historical, is to propose a method of assemblage, or making meaning from data. My focus on life narratives derives from the fundamental condition of life writing as being written and read in relationship to a concept of human life as historical. As Smith and Watson pinpoint, life narratives are "distinguished by their relationship to and claims about a referential world" (10). This inherent relationship to an idea of observable reality makes them particularly fruitful sites of investigation for a changing cultural and cognitive relationship to data. Phillipe Lejeune pinpoints that autobiography is "a mode of reading as much as it is a type of writing," a mode of reading signaled, in the most traditional cases, ²⁰ by the correspondence of named author to narrator/protagonist. But beyond these most traditional cases, the narration of lives takes many forms: autobiography, autobiographical profile, fictional biography, multi-genre essay collection. Each implies a relationship to an exhaustive data collection that would represent the whole of a real life. Life narrators have always been a kind of data-driven narrator, then, but in the period of study they, too, newly share in a self-conscious sense of their own agency in constructing meaning.

As they collect the data of their own and others' lives, the writers I examine also collect the data of encountering data. This is a secondary but important dynamic in this

study. These life narratives contain numerous direct references to the claims of science, empiricism, and the encounter²¹ with data-bearing media. While my focus is more formal than thematic, such references are an important part of the explanation for emergence of the data aesthetic and my argument for its role in shaping selfhood and subjectivity. An underlying epistemology of data gives rise to technologies of data collection and analysis, representational forms to convey it, and media that gives its conceptual shape concrete form. Interaction with technologies of all kinds over time changes key dynamics of subjectivity: habits of attention, sense of embodiment, spatialization, and more.²²

Through the recounting of experiences of reading, listening, and in other ways consuming data about the world beyond their direct sensory experience, these writers instantiate a double scene of reading²³ or double encounter with data. We read about them reading; we encounter their encounter with data: Du Bois reading headlines of lynching, Adams reading news of the world beyond Boston, im/migrants reading newspapers from abroad, and native-born U.S. Americans reading of im/migrants in magazines.²⁴ But instead of the information overload cohering in a national narrative, as Benedict Anderson has suggested as a primary mechanism of modern national identity, these forms work to parallelize awareness. Hayles writes, "The ability to access and retrieve information on a global scale has a significant impact on how one thinks about one's place in the world" (2). Constant encounters with data—which, as I argued earlier, bears a conceptual weight that forces the reader/perceiver to grant it the force of a reality that supersedes subjective impression or prior belief—are generating "a new kind of phenomenality of position and juxtaposition" (96). Brian Rotman, a media theorist focused on subjectivity, would term such a phenomenality "parallelism" or parallel selfhood, a foregrounding of "co-presence, simultaneity, and co-occurrence...exemplified in collaborating, displaying, and networking"

(83). This shift, Rotman argues, comes about through the interaction with technology, and the "the technology in question can be primarily cognitive" (54), as demonstrated by his study of alphabetic writing, the subjectification effects of which include an emphasis on linearity and analyticity. Parallel selfhood cannot rely on conventional, sequential narrative, because it insists on co-occurring realities of self. Thus, it also cannot be a selfhood premised on identity, for elements of self that would disrupt identity are maintained as equally real and equally meaningful.

Data might then be considered a primarily cognitive technology, and I propose we can understand it as a technology of awareness that becomes especially prominent and consequential in the early twentieth-century United States in which data functions as a mode of perception, particularly the perception of self and others.²⁵ Perception lingers in the form of consciousness, a persistent awareness that the thing perceived exists or did exist that in turn re-shapes perception of position and relationality. I argue that data points, because of the privileged relationship to reality enshrined in them by Enlightenment empiricism, are especially strong inducements to perceptions of existence and that they generate, unless otherwise acted upon, awareness rather than knowledge in the sense of meaningful information. One of the ways of acting upon data is reading, a discrete act of interpretation that involves the aggregation of a select set of data points and an attribution of meaning to the reality they evidence. The idea of data's existence, sometimes backed up by its actual existence, makes a difference in this act of reading because it insists on the reality of the collection as a whole. Thus, elements in a data collection exist in a state of potential interpretation. Data asks us to see the world in small, whole points and then forces us to see the potential relationships between those points as multiple. When a data collector assembles data points to form a reading, the non-selected points do not cease to exist or cease to exert

the force of equal potential meaning. Thus, all acts of reading are seen to be provisional and revisable. This changes the narrator, and the reader's, relationship to narrative as a model of reality.

Outline of chapters

The four chapters of *Data-Driven Modernism* examine how W.E.B. Du Bois, Henry Adams, im/migrant autobiographers, and Gertrude Stein configure data collection as a method for representing the self and answering questions of identity. With this comparative approach, situating works from a range of modernist canons in the data episteme—a cultural surround in which data and its collection are presumed to offer unprecedented access to reality, truth, and power—I seek to recognize not only the long conceptual history of data as a technology of selfhood, but also its intersection with material histories of power, that is, who has the ability to collect data about whom and to what ends.

While their texts, I argue, meet the most important criteria to be considered data collections under the conceptual rubric I have laid out, their divergences from our contemporary notion of data as conditioned by the digital age are also important to note, for it is these divergences that help bring our assumptions into relief. Centrally, these texts are composed of data, but these data are not digital. Digital data is generated by binary encoding and is machine readable and actionable (Schöch). Digital data is thus the foundation of the aesthetic forms and concepts of identity most commonly associated with the Web, such as database manipulation and interactively generated visualizations and algorithmic identity. What the writers of this study remind us of is that prior to these aggregations and compressions, data exists as points, each hefting a small, whole detail of the world into our perception.

These writers reflect on our own data surround in unexpected ways, because they share the desire for, suspicion of, and aspiration to total data representation, yet they negotiate these relationships to data in a pre-digital ecology of affordances for collection, manipulation, and interpretation. This means that their engagement with data is more literally an encounter with data—more physical and more on a point-by-point basis. When Du Bois collects the data of African American life in Philadelphia, he is not querying a series of gov databases with historical information on household make-up, income, and property values. He walks door to door to complete the 5,000 questionnaires that make up his database. He personally enacts the encoding of perception and interaction into number and word. He then stores, organizes, and re-organizes this data in paper form. When Stein works to model the human brain, she is not using imaging software to apply multiple comparison correction methods to a set of functional magnetic resonance imaging (fMRI) scans. She is drawing, by hand, every facet of every slice put in front of her. While so many of the tools we, as professional and lay readers of a data-enveloped world, flatter our pretensions of being able to see everything and know it all, these writers daily perform the lossy translation of experience into data and confront the impossibility of keeping every point of it in view.

Chapter one, "W.E.B. Du Bois, Data, and the Re-assemblage of Race and Self," demonstrates how Du Bois uses data collection—as a conceptual framework for empirical reality, as a method of sociological inquiry, and as a representational form—to intervene in fixed narratives of African American life and selfhood. I locate his methodological innovations in sociology in *The Philadelphia Negro* (1899) as being drawn from an insistence on more rigorous and more exhaustive practices of data collection. I trace how his collection of and interaction with data leads to ways of seeing the self and the world that surface and develop in his multi-formal autobiographical works. Specifically, the data of *Philadelphia Negro*

creates a parallel aesthetic of collection that surfaces complexity where an imposed coherence threatens to stifle the narrative trajectories of African American lives. The aesthetic of complexity continues to inform *The Souls of Black Folk*'s construction of black collectivity through a multiplicity of rhetorical and formal modes that displace any single historical narrative, social trajectory, or empirical assessment of African American life. The epistemology of data collection then drives the crowd-sourced politics of *Darkwater*, which translates the ideal of exhaustivity into an aspirational democratic imaginary. Finally, *Dusk*'s re-collection of a life ricocheted between disciplinary, geographical, and social spaces creates an assemblage-driven black self that is not essentially other but experientially othered by repeated encounter, both mediated and direct, with racist violence. Taken together, these texts also constitute a persistent critique of empiricism as a tool for progressive social analysis—both for what it cannot represent and what it cannot do—which offers insight into how the desire for data must be negotiated and checked in contexts of uneven social relationships.

"The Educations of Henry Adams: Developmental Narrative to Data Collection" (Chapter two) links Adams's desire for an empirical approach to history to his perception that the education of the modern subject cannot be narrated. Unlike Du Bois, who we have seen empowered by data's potential for unsettling received narratives of African American life, Adams is beset by data collection's maintenance of contingency and contradiction.

Recording the educational experiences of the manikin in which he has cast his subjectivity as objectivity and his selfhood as objecthood, he confronts a self that is perpetually de- and reassembled by shifts in social, economic, and political order driven by new industrial technologies, immigration, and a cultural discourse of scientific authority. Increasingly aware of multiple collectivities within the nation, he can no longer think of narrative selfhood he

receives from his family as "the" American model, but must perceive himself as one of many models and as a model that must change. Self becomes a series of self-consciously constructed assemblages that forestall both the determinist predictions of science and the secure establishment of identity. In its migrations and educations, begun and re-begun, Adams's life comes to exemplify not the family tradition of elite leadership but the emerging American vocation of flexibility as he churns through careers and philosophical frameworks. Adams's inability, or unwillingness, to see this flexibility as a valid and valuable mode of selfhood ultimately serves not to condemn the data-driven view but to confirm that data in and of itself will not sanction the worth of selves and that a critical orientation remains a vital supplement to empiricist receptivity. Further, his manifest anxiety at rendering the human as data, when compared to a Du Boisian invigoration through data or a Steinian playfulness, reminds us that as the data aesthetic re-forms and thus our assumptions about the boundaries and agencies of the human, the perception of and affect generated by this shift will vary according to the relationship to narrative that we held in the first place.

The third chapter, "Contiguous but widely separated' Selves: Im/migrant Life
Narrative as Data-Driven Form," turns most concertedly away from canonical figures as it
theorizes immigration as a nexus of data, narrative, and nation through readings of Chicago
School sociology's investment in collecting life histories to arrive at nomothetic law of
"social becoming," the "lifelets" collected as *The Life Stories of Undistinguished Americans*, and
Italian-American sociologist Constantine Panunzio's *Soul of an Immigrant*. As these readings
track the transnational physical and cognitive movements of these subjects, data's
epistemological valorization of exhaustive representation is shown to drive a narrative
aesthetic of inclusion that exposes the provisionality and ambivalence of U.S. narrative
selfhood. Through their formulations of a data aesthetic, these texts address the mutability

of self and nation in the context of physical and cognitive mobility. Data collection is the method and form through which this mutability is revealed and represented. The resulting narratives and models of acculturation they imply argue powerfully against identitarian models of self and nation through their insistence on assemblage rather than development or transformation as a central formal process.

The fourth and final chapter, "To Tell a Story Wholly: Gertrude Stein, Melanctha, and Self as Data Collection," understands data as a formal underpinning of both Stein's innovation and her re-iteration of racial othering. Through readings of Stein's methodological paratexts, in which she links her genius to a disavowal of traditional narrative that draws from data epistemology, and the "Melanctha" section of Three Lives, I chart the differential social effects of representing life as a data collection. This reading sees both Stein and Melanctha as data collectors bent on knowing the self by assembling an exhaustive data collection. For Stein, these collecting projects take many forms: the recording of somatic response in psychology experiments, the painstaking visual rendering of brain dissection, the novelistic search for a definitive typology of humanity in the Making of Americans, and the radically inverted scope of exhaustivity aimed at the three subjects of *Three Lives*. In each of these disciplinary milieu, Stein both innovates and offends through her insistence on discarding none of the data points, equating the most real record with the most exhaustive. Melanctha, too, insists on the equal reality of every instant of self, and she too innovates and offends as she wanders across classes and neighborhoods, in each relationship claiming of the entirety of her experience. Stein's own intellectual mobilities, cast as Melanctha's life story, become treacherous incoherencies, a critical reminder that the data aesthetic of collection and inclusion is not necessarily an inclusive aesthetic. If the data of self represented a transparent truth, Melanctha and Stein would have the same life story. The

same desires situated in different bodies lead to unequally problematic and empowering narratives.

In conclusion, I reflect upon how the insights of these data collectors and modernist narrators might inform our own methods for knowing the human. The data-driven imagination's meaningful challenge to and extension of literary studies, I want to suggest, comes not from data's superior empiricism but from its epistemological insistence on collection instead of selection, its troubling of narrative itself through its foregrounding of contradiction, co-presence, and plurality. The contemporary debate over close reading and the proposal of methods that seek to go beyond and de-center the critical intelligence of single scholars have important precedents in the works I discuss. The models of critical engagement with data offered by writers and thinkers who in an early twentieth-century moment also found themselves excited by the possibility of representation and revelation through data collection may help inform our own answers to the big and fundamentally methodological question of data's role in humanities research—is the human amenable to empirical representation and inquiry? Finally, as these writers show us, data is less reality than a way of seeing reality that, due to its cultural heft and historically powerful effects, offers both tantalizing and terrifying prospects for representing the sharp complexities of U.S. selfhood and sociality. It offers but does not guarantee to defamiliarize the tropes of race, ethnicity, and gender that discursively constrain our perception of lives, our own and others'. For that important work of modernist aesthetics to continue, data must be approached critically. These texts, I argue, begin to show us how.

Notes

¹ Throughout this study, I differentiate between "subject" and "self" in order to distinguish between the conceptual coordinates of subjectivity (gender, race, social position, etc.) and narrated versions of life that form concepts of selfhood. As Rodger Payne suggests, "The self was a creation of the early modern West; it was the distinct invention of a new

consciousness that was, most fundamentally, narrative in its form and essence" (8). I therefore retain "subject" as a theoretical and conceptual foundation from which multiple narrated forms of self can arise.

² The conceptual definition of data is surprisingly underdeveloped in critical literature. As Daniel Rosenberg has recently noted, "in recent histories of science and epistemology, including foundational works by Lorraine Daston, Mary Poovey, Theodore Porter, and Ann Blair, the term 'data' does heavy lifting yet is barely remarked upon." I am indebted to Rosenberg's tracing of historical usage, in particular the gradual shift from data's status as a term of rhetoric to a term of science, although I depart from his assessment that data connotes no truth value in present-day discourse.

³ Exhaustivity is a term drawn from information science and is a measure of the correspondence of an index to the document(s) indexed, a measure of the distance between the secondary model and the complete world of knowledge of the document(s) in question (van Rijsbergen 24-25). No data collection realizes the ideal of exhaustivity, but every data collection implicitly engages with the aspiration. This is demonstrated either through the collector's explication of sampling practices, which delineates the limited scope within which their collection is intended to be exhaustive or, in the work of less sophisticated collectors, through the assumption that their data is perfectly congruent with the object of inquiry.

⁴ Bacon is always aware of the potentially instrumental uses of the knowledge that data collection will create. He lists "three species and degrees of ambition" by imagining three types of men (104): "men who are anxious to enlarge their own power in their country," "men who strive to enlarge the power and empire of their country over mankind," and those who "endeavor to renew and enlarge the power and empire of mankind in general over the universe." Of these three, Bacon commends only the final, but sees the second as a moderate good. I focus here on the conceptual history of data because it continues to animate contemporary data collection projects, but there is an equally important history of data's connection to imperial projects that could also be examined.

⁵ Not that such a "raw," pre-subjective form of data ever actually exists. As Geoffrey Bowker points out, "raw data is an oxymoron" (cited by Gitelman and Jackson 1). As my colleagues in public health have also often quipped, the quality of a data set is in inverse proportion to your proximity to its collection. Every project of data collection is, in practice, acutely aware of its own limits, or should be. These are certainly accurate critiques, as a long tradition of critique of empiricism has demonstrated, but it is not how data operates in public perception or as an object of aspiration. Projects of data collection are undertaken in the hope of exhaustive representation and ultimate revelation.

⁶ See Elliott, The Culture Concept; Evans, Before Cultures; Capetti, Writing Chicago: Modernism, Ethnography, and the Novel; Tolentino, America's Experts; Meyer, Irresistible Dictation.

⁷ Another word for this formal production of equality is commensuration. The effect of commensuration is one of data's ambivalent virtues. Commensuration erases important differences as the same time as it levels difference. Put another way, you can represent the world through a flat ontology, but real hierarchies remain the same.

⁸ Somewhat more technically stated, Floridi offers the following as a complete definition of data: "Dd) datum = $_{def}$. x being distinct from y, where x and y are two uninterpreted variables and the relation of 'being distinct', as well as the domain, are left open to further interpretation."

⁹ Although, as N. Katherine Hayles observes in her reading of Shannon, this is a somewhat reductive, instrumentalizing view of Shannon's initial argument, which suggests

that the addition of noise to signal actually increases the number of potential meanings, a reading which would align it more with data in my argument. This view, though, has not been typical in theoretical considerations thus far.

¹⁰ As Joe Fassler writes for *The Atlantic*, "Narrative Science, a Chicago-based startup, has developed an innovative platform that writes reported articles in eerily humanlike cadence. Their early work focused on niche markets, clients with repetitive storylines and loads of numeric data—sports stories, say, or financial reports. But the underlying logic that drives the process—scan a data set, detect significance, and tell a story based on facts—is powerful and vastly applicable. Wherever there is data, Narrative Science founders say, their software can generate a prose analysis that's robust, reliable, and readable.

¹¹ In this same passage, Aristotle also distinguishes between life and narrative as this study will: "Unity of plot does not, as some persons think, consist in the Unity of the hero. For infinitely various are the incidents in one man's life which cannot be reduced to unity; and so, too, there are many actions of one man out of which we cannot make one action" (Poetics 8).

¹² By identity I refer to the basic philosophical concept of self-sameness as it intersects with political questions of the human. For example, in chapter 3, the construction of life narratives that emphasize contingent, contextual definitions of self can be seen as a challenge to nationalist discourses that see nationality as identity, a binary state of American or non-American. For an overview of the philosophy of identity, see Olson.

¹³ I am also conceptually indebted to many others. I draw from foundational work of Friedrich Kittler, who, as summarized by David Wellbery's "Forward" to *Discourse Networks 1800/1900*, is central to our now taken-for-granted understanding that "literature is medially constituted--that is, if it is a means for the processing, storage, and transmission of data--then its character will change historically according to the material and technical resources at its disposal" (xiii).

¹⁴ As in, for example, April Nowicki's recent report from the Local Data Summit, a conference devoted to connecting small businesses with local data to drive sales: "The future of search won't need to listen to what you ask for in order to know exactly what you mean. Searches and results will appear before a consumer even knows he or she needs it. It will simplify everyday life by taking over the minutiae that were previously taking up time and energy."

¹⁵ Shannon Herbert has proposed the terms "curatorial novel" and "curatorial subject" to describe a text and narrating figure that shares with my concept of data-driven in many ways, but as she routes these terms through the formal rubric of postmodernism, she arrives at a different periodization and a different set of writers. Notably, she studies texts from the second half of the twentieth century that do not feature an overtly science-oriented narrator.

¹⁶ See Friedman, "Planetarity"; Huyssen, *After the Great Divide*; Mao & Walkowitz, *Bad Modernisms*; and Sollors, *Ethnic Modernism*.

¹⁷ For basic definitions of these two aesthetic categories, I look to Donald Pizer and Amy Kaplan. Pizer defines naturalism as "social realism laced with the idea of determinism" (14) that "usually unites detailed documentation of the more sensationalistic aspects of experience with heavily ideological (often allegorical) themes, the burden of these themes being the demonstration that man is more circumscribed than ordinarily assumed" (16). Naturalism, so understood, relies on fixed narrative forms to make its broader point about the fundamentally determined human condition. Kaplan describes realism as "a fiction of

the referent" (8) deployed in the historical context of social change, class inequality, and the emergence of mass media. Realist writers, in her view, "do more than passively record the world outside; they actually create and criticize the meanings, representations, and ideologies of their own changing culture" (7). The modernists I write of do this, as well, but I contend that they do so with a differently self-conscious relationship to narrative form as a representation of reality. Of course, the assessment of "conventional" or "fixed" narrative is always a relative one. Lukacs, famously, decries the lack of narrative in realist forms.

There have also been recent and important departures from these broad definitions that are relevant to my argument. I am particularly indebted to Jennifer Fleissner's attention to repetition (in relation to naturalism) and Michael Elliott's attention to the details in ethnographic forms (in relation to realism). Their explanatory arguments, in psychological compulsion and the disciplinary history of anthropology, respectively, do not fully address the concept of data, however.

¹⁸ My characterization of the postmodern stance toward narrative follows from Francois Lyotard's well-known summary definition of postmodernism as "incredulity toward metanarratives" (xxiv). He accounts for this incredulity by arguing that the status of knowledge has changed in the age of computational research and transmission of information: it has been transformed from an end in itself to a commodity of exchange. The history of the term "data" would certainly tend to support this account, having gone from a technical term to a popular expression referenced in advertisement for both business services and consumer products. I also draw from Linda Hutcheon's connection of postmodernism to "historiographic metanarrative," or the attempt in narrative to make sense of how the reality of history might be constructed that ends in arguing that it cannot be.

¹⁹ By "conceptual heft," I refer to the presumed authority of the data point, its implied superiority to the individual insight, and (in theory) its power to displace presumed conclusions and received narratives. I see this authority as related to but not synonymous with Daston and Galison's concept of "epistemic virtue," the appeal to ethical values as well as pragmatic efficacy in uncovering knowledge made by scientific practice. These practices, in their view, mold a particular form of selfhood, defined by the aspiration to self-mastery and assiduous adherence to defined practices. The data collector presumptively claims these epistemic virtues, granting them a cultural authority that may be interrogated but is often accepted.

²⁰ Lejeune defines autobiography, in the strict sense, as "retrospective prose narrative written by a real person concerning his own existence, where the focus is his individual life, in particular the story of his personality" (4). This definition has been widely interrogated, particularly by feminist life writing scholars, and is eventually revised by Lejeune himself who has qualified it as a kind of starting, central point for understanding autobiography as a genre in literary historical terms but not as setting the limits of what may be considered life narrative.

²¹ As Sara Ahmed elaborates: "The term encounter suggests a meeting, but a meeting which involves surprise and conflict" (6). Ahmed's theorization of the encounter includes both face-to-face meetings "where at least two subjects get close enough to see and touch each other" and the more conceptual but equally powerful "coming together of at least two elements" such as "reading as a meeting between reader and text" (7). Encounters are thus experiences of assemblage that force us to ask, "how does identity become instituted through encounters with others that surprise, that shift the boundaries of the familiar, of what we assume we know?" (6-7).

²² See Hayles's concept of technogenesis in *How We Think*.

²³ I draw the double scene of reading from Benedict Anderson's *Imagined Communities* (32). I explore it in much more detail in chapter 3.

²⁴ While newspapers and magazines might be thought of as closer to information than data, I read them as a data-bearing form because of their formal parallelism and their alignment with the concept of referential information as defined by sociologist Robert Park, explained more fully in chapter 3.

²⁵ By perception, I refer to the instantaneous receipt of sense. I do not intend to naturalize perception; if there is such a thing as raw sensory input, it is not accessible in an unmediated form and will always be filtered through language, ideology, and prior knowledge. Data are not pre-interpretive or a-theoretical, although they are often desired to be and functionally treated as such.

²⁶ For in-depth explication and discussion of databases and interactively generated Web forms, see Manovich, *The Language of New Media*; Hayles, "Narrative and Database."

CHAPTER ONE

W.E.B. Du Bois, Data, and the Re-assemblage of Race and Self

I started with no "research methods" and I asked little advice as to procedure. The problem lay before me. Study it. I studied it personally and not by proxy. I sent out no canvassers. I went myself. Personally I visited and talked with 5,000 persons. What I could, I set down in orderly sequence on schedules which I made out and submitted to the University for criticism. Other information I stored in my memory or wrote out as memoranda. I went through the Philadelphia libraries for data, gained access in many instances to private libraries of colored folk and got individual information. I mapped the district, classifying it by conditions; I compiled two centuries of the history of the Negro in Philadelphia and in the Seventh Ward. *The Autobiography of W.E.B. Du Bois*

Du Bois's description of collecting data for his 1899 sociological study, *The Philadelphia Negro*, stands as a thorough rebuke of the idea that data is immaterial and allows for disembodied knowledge. His recitation of the procedural steps comprising his work calls to mind hours of exhausting and repetitive physical labor—walk for miles, talk for hours, write it up, repeat a thousand times. As he attempts to realize his desire for an exhaustive set of data on African American life, the physical impositions and subtle subjective accommodations that data provokes become manifest. His mind is turned from an interpretive tool into a storage device. Du Bois appends his memory to the externalized devices of survey schedule and written memoranda, blurring the lines between self and data collection. The work continues: "I went through the Philadelphia libraries of colored folk and got individual information. I mapped the district, classifying it by conditions; I compiled two centuries of the history of the Negro in Philadelphia and in the Seventh Ward." Du Bois

is search engine, mapping tool and compiler as well as an interviewer and writer. The list-like quality of the sentences conveys stylistically and rhythmically how the repetitive nature of collection pushes the narrating subject out of cause-and-effect narrativity and into method-driven iteration. The movement toward a conclusion—to the act of data collection, to an understanding of race, to the story of the self as investigator—is deferred as he collects more points of data, insisting on a scope of exhaustivity that is historically as well as geographically and socially vast. The epistemological commitment to data collection entails physical commitment as well. His "T" is a data collector performing both intellectual and physical acts of collection that bring him into unfamiliar and shifting relationships to self, others, and the material contexts in which they meet.

Pulling back the frame to a broader historical context reveals yet another layer of bodily entanglement between the theory and practice of data collection. At least part of, if not the overriding, reason that Du Bois conducts his surveys personally is that he does not have the funding for assistants or students to conscript. Although he has a faculty champion in Samuel McCune Lindsay, "the faculty demurred at having a colored instructor" (194). Instead, Du Bois undertakes this study as a temporary employee of the University of Pennsylvania, a Harvard Ph.D. and a student of leading German sociologists consigned to the "unusual status of 'assistant' instructor....given no real academic standing, no office at the University, no official recognition of any kind" (*Autobiography* 194). From neither the white establishment nor the African American community is recognition of his work forthcoming. He relates, "Whites said: Why study the obvious? Blacks said: Are we animals to be dissected and by an unknown Negro at that?" (195). Yet the reason his work is relatively unsupported is the same reason it is so crucial that he do it. He recognizes that the commission reflects the city of Philadelphia's wish for "scientific sanction to the known

causes" of crime and corruption, namely the "Negro Seventh Ward," but also sees it as his opportunity to intervene in a in a world "thinking wrong about race, because it did not know" (*Dusk 58*). He "ignore[s] the pitiful stipend" and determines to build a sociological method built on "facts, any and all facts, concerning the American Negro and his plight" (51). Du Bois desires data because he conjectures that it has the potential to tell a different story and that starting with the act of collecting data, rather than the act of proposing a theory, will disrupt predetermined assumptions about racial destiny and potential.

Understanding how Du Bois's engagement with methods of data collection intersects with histories of race thinking offers a new approach to understanding his narrative forms of subjectivity and selfhood—how a self-consciously empiricist subject understands its positions and agencies in the social world, and how in this light the self becomes a collector and a collection. This chapter locates Du Bois's methodological interventions in sociology as engagements with the concept of data and traces how those engagements continue to surface in a series of his later, multi-formal collective works of autobiographical, literary, and sociological-historical writings. I argue that data's epistemological valorization of exhaustive representation and the collective forms it generates play an important and underexplored role in his repeated attempts to represent self and community. To do so, I examine a trajectory of works that are usually considered to be parts of disparate phases of Du Bois's career in order to show the influence of data-driven epistemologies on his autobiographical forms, race thinking, and political imagination during phases of his work that are often assumed to have veered from modern equations of empirical inquiry with social progress. This chapter begins by exploring Du Bois's theorization of empiricism and data collection and examining The Philadelphia Negro as an intervention in data discourse, which provides a background for understanding how a datadriven perspective drives the formal innovation of the works he retrospectively describes as "three sets of thought centering around the hurts and hesitancies that hem the black man" (Dusk vii): The Souls of Black Folk, Darkwater: Voices from Within the Veil, and Dusk of Dawn: Autobiography of a Race Concept.

My reading of *The Philadelphia Negro* demonstrates how data collection—as a conceptual framework for empirical reality, as a method of sociological inquiry, and as a representational form—enables Du Bois to transform a single, disparaging narrative of African American life and selfhood into parallel, heterogeneous narratives. PN's interventions in data collection produce an aesthetic of complexity represented through textual modes of parallelism that we can see being translated into the formal innovations of his later life writings. From the complexity of PN's collective form comes the complexity of self, society, and political imagination that *Souls* conveys through its range of formal modes, the crowd-sourced politics of *Darkwater*, and the assemblage-driven self of *Dusk*. In *Souls of* Black Folk, he devises a collective mode of representing the self as it moves within multiple collections, though never entirely out of the racialized collection that limits his professional opportunity and imperils his physical safety. Darkwater theorizes democracy as a collection of data gleaned from lives, a collection that must be exhaustive if democracy is to be just and successful. In Dusk of Dawn, he creates a mode of selfhood composed not just of personal experiences but historical events, social forces, and relationships assembled as data points rather than a progressive or Aristotelian narrative, positing a new coherence for selfhood mediated through data as form of representation. I argue that his repeated experiments with collective life writing forms indicates how, over the course of an early twentieth-century career straddling the disciplines and practices of social science, literary writing, and activism, Du Bois came to imagine selfhood as a data collection from which the significance of his life

could be assembled in multiple ways. His lifelong engagement with data collection also gives rise to a persistent critique of empiricism as a tool for progressive social analysis—both for what it cannot represent and what it cannot do—which offers insight into how the desire for data must be negotiated and checked in contexts of uneven social relationships. Thus, the "three sets of thought" that emerge over the rest of his career reflect how his engagement with data connects his commitment to scientific understanding of race, his imagination of the social world, and his definition of black collectivity continue to form and re-form his representation of self and society—a process that constitutes an archive of engagement with the broader conceptual shift toward reality as data and self as data collector and collection.

Du Boisian empiricism & data collection

The main result of my schooling had been to emphasize science and the scientific attitude.... I was interested in evolution, geology, and the new psychology. I began to conceive of the world as a continuing growth rather than a finished product. (*Dusk* 50)

For Du Bois, scientific empiricism and anti-teleological thought went hand-in-hand. Each of these scientific disciplines had, during the nineteenth century, introduced profound complications into the determinist projections of early empiricists. Du Bois identifies and seizes upon the paradox of data collection that these contemporary theories brought to the fore: data collection, as a form of empirical inquiry, is undertaken with the hope of revealing laws of nature—transparent mechanisms by which the past is understood and the future can be predicted—but in practice it unleashes profound uncertainty about the possibility of any single meaning for the past or direction for the future. In the complexity and contingency brought into view by Darwin's massive species data collection, for example, there was no longer a scientific basis for arguing that racial characteristics, and therefore social hierarchies,

were fixed. Contra Herbert Spencer and other Darwinian interlocutors thought to have dominated the uptake of evolutionary theory in the U.S., Du Bois saw in perpetual adaptation driven by contingent circumstances the potential to think about race differently. As nineteenth-century science turned toward a Darwinian evolutionary model of "conceiving the world not as a permanent structure but as a changing growth" (*Dusk* 4), Du Bois saw opportunity, for "the study of man as changing and developing physical and social entity had to begin" (*Dusk* 4). In this epistemological and historical context, Du Bois's embrace of empiricism, though never total or uncritical, is an embrace of the potential to disrupt narratives that fixed racial difference in place.

Du Bois writes that the University of Pennsylvania commissioned him to study the African American population of Philadelphia in order to confirm just such a fixed narrative: "The fact was that the city of Philadelphia at that time had a theory; and that theory was that this great, rich, and famous municipality was going to the dogs because of the crime and venality of its Negro citizens, who lived largely centered in the slum at the lower end of the seventh ward. Philadelphia wanted to prove this by figures and I was the man to do it" (Dusk 58). Data is viewed by his sponsors as a nice supplement to what is already known, not as a potentially disruptive technology of knowledge. Du Bois, however, uses the opportunity provided without assenting to its projected ends: "Of this theory back of the plan, I neither knew nor cared. I saw only here a chance to study an historical group of black folk and to show exactly what their place was in the community" (Dusk 58). Du Bois desires data because he conjectures that it has potential to tell a different story and that starting with the act of collecting data, rather than the act of proposing a theory, will disrupt predetermined assumptions about racial destiny and potential.

In the wider culture, though, data was operating more as alibi than antidote to racist theories and practices. The 1890s marked both the beginning of Du Bois's professional life and the emergence of "a new social scientific discourse on the Negro Problem...set in motion by a racial data revolution" (Muhammed 33). In 1890, Nathaniel Shaler published "Science and the African Problem," which called for a massive data collection about the African heritage of present day African Americans as well as numerous facets of their social condition in the U.S. in order to direct programs that would make the best of the "difficulties which the presence of our African brethren presents" (qtd. in Muhammed 38). Frederick Hoffman's Race Traits (1896) is perhaps the key text in the ensuing "revolution." Hoffman, a German-born insurance actuary, assembled previously collected data on African American crime and mortality in order to "prove" that African Americans could not only be justifiably charged higher insurance premiums but were also, as a race, destined for extinction and therefore undeserving of organized, sustained social assistance. As Muhammad describes, "Hoffman combined crime statistics with a well-crafted white supremacist narrative to shape the reading of black criminality while trying to minimize the appearance of doing so" (51). His work was influential not because of its rigor but because its appearance of objectivity provided adequate cover to legitimize blatant white supremacy. The use of data provided a veneer of empiricism that was used to support arguments for racial inferiority to appease northern suspicions of southern racism and offer a new pseudoscientific cover for revamped racist practices in insurance sales and policing (previous pseudo-sciences having become unpersuasive in northern contexts).¹

As Mia Bay describes, the same core of empiricism that provided ideological cover to Hoffman's untruths is central to Du Bois's radical intervention: "The first empirical study of social problems among American blacks, Du Bois's *PN* was a radical and deliberate

departure from the research methods employed by his white colleagues to study the same subjects" (42). He intervenes in data's racialization not by rejecting it but by more fully embracing it as a method of representing reality. This is a crucial step in combatting scientific racism, for, as Nancy Leys Stepan and Sander Gilman explain, "Confronting scientific racism necessitate[s] acquiring a degree of control over the elements of an intellectual idiom, their re-assemblage, and employment for new ends" (75). Bay notes this process at work in Du Bois's 1897 speech, "The Conservation of Races." While noting that this speech is "now mostly remembered for its unvarnished racial essentialism," Bay calls attention to an important vein of its disruptive, data-driven thought: "underlying his essentialist message was a call for empirical data so open-ended that it made his call for the 'conservation of the races' a tentative hypothesis at best" (47). The commitment to exhaustive data collection suspends the reality of race by, at the very least, postponing its proof and, at its furthest conceptual reach, calling into question its empirical reality by demonstrating the equally real heterogeneity within any group of people.

Du Bois's primary methodological intervention is to massively expand the scope of data collection and thus to defamiliarize the presumed reality of race. As Michael Katz and Thomas Sugrue succinctly put it, "Du Bois did not sample" (23). If data is going to define reality, he desires all of it. His demarcation of the field to be surveyed is both quantitatively and qualitatively dense. In the opening chapter of *PN*, "The Scope of this Study," Du Bois lays out the geographic and demographic parameters of his investigation: "The work commenced with a house-to-house canvass of the Seventh Ward" in which "Six schedules were used among the nine thousand Negroes of this ward" (1), questionnaires which facilitate the collection of lengthy list of quantifiable facts about families, such as earnings, rent, quality of lodging, and education. Although Du Bois had to compromise in other

wards, this more or less exhaustive data set of the Seventh Ward "furnished a key to the situation in the city; in the other wards therefore a general survey was taken." His scope of data collection is conceptually comprehensive as well. Along with this survey of material conditions, Du Bois also devises methods of surveying a more abstract but equally pressing "social environment—the surrounding world of custom, wish, whim, and thought which envelops this group" (3). Finally, the data of historical context is also added, in the form of two chapters outlining the history of black migration, forced and unforced, and the changing legal status of African Americans in the city from 1638-1896. The vast and dense scope of collection is a response to Hoffman's cherry-picked statistics, but it is also innovative in its own right, a modernist refusal to compromise the complexity of reality in the name of a coherent representation.

The empiricist desire for data is the conceptual wedge with which Du Bois is able to expand the scope of study and therefore change the portrait of African American life in the city, because data documents difference and confronts the assumption of sameness. The overarching goal of his study is to break down the white assumption that African American population of Philadelphia is describable as one entity, an assumption ingrained as reflexive thought. "It is often tacitly assumed," he writes, "that the Negroes of Philadelphia are one homogeneous mass" (53). Nearing the end of the work, he restates this claim and adds a forceful condemnation of accepting this assumption: "There is always a strong tendency on the part of the community to consider the Negroes as composing one practically homogeneous mass....and there is no surer way of misunderstanding the Negro or being misunderstood by him than by ignoring manifest differences of condition and power in the 40,000 black people of Philadelphia" (220). Here, the objection is framed as purely epistemological: the problem with ignoring variation is misunderstanding, or faulty

knowledge. But Du Bois soon links misunderstanding to racist actions. In the course of documenting the challenges faced by African Americans trying to get and keep good jobs, Du Bois writes, "The difficulties encountered by the Negro on account of sweeping conclusions made about him are manifold" and goes on to provide an "actual case" to illustrate "this tendency to exclude the Negro without proper consideration from even menial employment" (236). In a data-driven study, "the" Philadelphia negro becomes "5,000 persons" (*Autobiography* 198) of distinct classes, histories, and individual potentials. Grand narratives, like sweeping conclusions, are not accurate or justified, and in the face of the profusion of data look narrowly focused and unsubtle to anyone who shares an investment in grappling with reality.

Given the scope of his methodological and political ambition, Du Bois describes the goal of *PN*'s data collection in terms that at first seem oddly passive: "The final design of the work is to lay before the public such a body of information as may be a safe guide for all efforts toward the solution of the many Negro problems of a great American city" (*PN* 1). The data will be "[laid] before the public" in order to offer a "safe guide" for future efforts, but in itself does not begin to recommend what those efforts might be (although Du Bois does slip in a few as the data accumulates). But, this delay can also be empowering: the difficulty, or even the seeming impossibility, of acting in the future is allayed by the immediate potential for data collection. At the least, collection induces a pause before selection, a pause that allows a multiplicity of realities and potential ways of narrating them to surface, which creates a consciousness that forever alters the data collector's relationship to the authority, coherence, and inevitably of any single narrative.

In the hands of Du Bois, this pause is part of a data strategy. Underplaying just how disruptive the empirical portrait of African American life will be, he attempts to pave the

way for sympathetic reception by appealing to the desire for data and implied assent to objectivity as a goal. He appears not to be making an argument but rather stating the facts for a broadly defined public (although for reasons discussed above, the scope of these facts is in itself a charged argument, and this public is the white social scientific and reform community). I do not wish to suggest that what he ultimately achieves is a truly empirical representation—he himself would admit that this is not the case. Rather, he gathers and incorporates elements of social reality that observers more invested in or influenced by ideologies of white supremacy would leave out of their empirical assembling. He attempts to leverage the ostensible value of objectivity to gain an audience for this new collection of facts.

The Philadelphia Negro: Homogenous mass to living community

In *The Philadelphia Negro*, Du Bois dis- and re-assembles the narrative representation of African American reality by engaging with the discourse of data to push the scope of collection and re-imagine the role of the data-driven narrator of social reality. *PN* puts the reader in the position of the data collector, a patient observer who is primarily receptive rather than projective. This observer surveys the "social problems before us demanding careful study" and joins the "we" in Du Bois's assertion that "we must study, we must investigate, we must attempt to solve; and the utmost that the world can demand is...the heart-quality of fairness, and an earnest desire for the truth despite its possible unpleasantness" (*PN* 2). The data must be collected and confronted. Complete and accurate representation of reality is a precursor to all else—interpretation, reform, condemnation. Du Bois instructs, "The student of these questions must first ask, What is the real condition of this group of human beings?" The student knows "that a slum is not a simple fact, it is a

symptom and that to know the removable causes of the Negro slums of Philadelphia requires a study that takes one far beyond the slum districts" (4). In place of just the slum, the study assembles "a complicated mass of facts" that form "the tangible evidence of a social atmosphere surrounding Negroes" (5). The student must practice indifference to "extreme statements" about what has caused obvious problems or what is to be done and instead "describe, analyze," and only "so far as possible, interpret" (5). The student's first and most important task is to assemble African American reality as collections of facts, forestalling conclusion by insisting on collection and the complexity it reveals.

Counterposed to the student of social problems is the "average Philadelphian," for whom "the whole Negro question reduces itself to a study of certain slum districts" (3). From the outset, the "average" observer is impaired by a lack of self-consciousness about the act of selection that has already been performed: only seeing slum districts, he ignores other parts of reality that lay equal claim to consideration. Du Bois narrates this observer's thought process to demonstrate its arrival at superficial conclusions, supported by familiar received images and assumptions rather than fact. First, "His mind reverts to Seventh and Lombard streets and to Twelfth and Kater streets," calling up an image of a single place to represent the entirety of the African American city. Next, he relies upon a selection of reports circulated through white social networks to diagnose this place as entirely problematic: "Continued and widely known charitable work in these sections makes the problem of poverty familiar to him; bold and daring crime too often traced to these centres has called his attention to the problem of crime, while the scores of loafers, idlers and prostitutes who crowd the sidewalks here night and day remind him of a problem of work." Du Bois describes a prototype of the middle class white citizen that social theorists of race will later describe as an unconscious racist, having absorbed circulated images of a few as the reality of all in another social group (Quillian 6-7). This observer also has a racially inflected version of the anesthetized subjectivity that modernist aesthetics of defamiliarization attempt to disrupt: he is so entrenched in familiar narratives that he is unable to perceive or imagine difference and multiplicity.

The epistemological imperative of exahaustive data collection does not deny that the types of problems that progressive whites sought to address exist but does demand they be documented in a more comprehensive context so as to intervene in the next step of the white observer's thought process: "All this is true—all these problems are there and of threatening intricacy; unfortunately, however, the interest of the ordinary man of affairs is apt to stop here. Crime, poverty and idleness affect his interests unfavorably and he would have them stopped; he looks upon these slums and slum characters as unpleasant things which should in some way be removed for the best interests of all" (3-4). Data's potential lies in defamiliarizing the reality of African American life in Philadelphia and disrupting the white observer's reliance on kneejerk explanations and unconsidered, unspecific prescriptions for change that cannot work because they are not informed by fact.

Thus, one of Du Bois's chief tasks is transforming the reader's conceptual model of African Americans as a group from homogenous mass to heterogeneous collection—from body into assemblage. In this task, formal modes of juxtaposition that create for the reader the effect of encountering raw data play a central role. This encounter is created, specifically, through pared down descriptive prose generally stripped of analysis, the use of lists to perform the accrual of data, a reliance on juxtaposition of observations rather than explanation, and the effect of multiple, parallel realities of African American social life that these techniques create. These formal characteristics of this data-driven representation may, on one level, be described simply as the use of scientific rhetoric, the stringing together of

facts as the result of seeking an appearance of objectivity, but it is also a formal attempt to put the reader into the position of the data collector. These formal aspects offer insight into how what I am identifying as the data aesthetic is legible as a modern and modernist form, and how it has the potential to re-shape the reader's consciousness of self and the world around the self.

Du Bois veers away from analysis and toward the accumulation of illustrative instances to represent the knottiness of the reality he studies and break down assumed narratives of cause and effect. These modes are deployed most often in perhaps the most potentially controversial topics: spending habits, drinking habits, and employment. In chapter eleven, "The Negro Family," for example, Du Bois implicitly counters the assumptions that poverty is the result of overspending on luxuries by detailing the money wasted on premiums paid for insurance policies of dubious value. Rather than narrate a couple of circumstances to prove the greed of these companies, he assembles a list of fifteen examples taken directly from completed questionnaires, such as "5. A family who put \$75 into a society and lost it all" (133). Using the list form as a way of showing an accumulation of evidence rather than making overt claims is perhaps even more effectively used in chapter sixteen, "The Contact of the Races," when Du Bois attempts to illustrate how thoroughly discrimination in employment constrains individual aspiration. The section titled "Color Prejudice" relies heavily on lists of personal experiences reported. This in a way physicalizes the encounter with data: the reader either reads through each incident and feels the cumulative effect of their numerousness or sees the amount of space the list takes up and assumes there are numerous instances.

When addressing "Pauperism and Alcoholism" in chapter 14, Du Bois uses the list form simply to highlight variation. He incorporates a list of "twenty-five families [that] will illustrate the varying conditions encountered" (197). To name just a few, this list contains a "wife, decent but out of work"; a "husband, intemperate drinker"; a family with "no push, and improvident" (198); and a widow, niece, and baby who "ask for work." There is no concluding summary after this list; after a rather overwhelming encounter with the different circumstances of twenty-five families, the reader is left with a sense of individual people of widely varying circumstances lined up side by side, with some trends of experience but no single identity.

The data-driven portrait of African American life in Philadelphia is, above all, one of internal heterogeneity and uncertain future rather than of group homogeneity and teleological destiny. For example, the demand for exhaustive representation through data overcomes the objection of statistical insignificance, which brings middle and upper class African Americans into the portrait of the group and asserts their parallel co-presence in social reality. While the average observer focuses only on the slums, the receptive data collector quickly perceives there is a "great middle class of Negroes feeding the slums on the one hand and the upper classes on the other" and recognizes that "here are social questions and conditions which must receive the most careful attention" (4). But "not even here, however, can the social investigator stop," for not even adding a middle class completes the portrait. The investigator "knows that every group has its upper class; it may be numerically small and socially of little weight, and yet its study is necessary to the comprehension of the whole." The concept of a complete data set allows Du Bois to assert parallel co-presence for previously invisible African American affluence.

This generation of parallel co-presence is where the aesthetic effect of data differs from that of statistics. Well-to-do African Americans cannot be written out of the record because they are few in number—they exist, and therefore must be part of the data set. *PN*

has often been criticized for championing the middle and upper African American classes at the expense of the struggling majority, but viewed in the context of the need to first diversify the portrait, their asserted presence provides an empirical hammer for shattering entrenched images and supports the anti-racist argument of evaluating individuals in material and social context rather than an entire group as a transcendent identity. His emphasis on the achievements of these classes is a move to enlarge the scope of representation. What the data-driven narrator perceives above all is the side-by-side-ness of a full range of social achievement within the African American population of Philadelphia. This necessarily includes the middle and upper classes, which his white audience does not currently acknowledge as part of a full picture of reality.

By marshaling masses of inert facts, PN represents African Americans as "a striving, palpitating group, and not an inert, sick body of crime...a long historical development and not a transient occurrence" (Autobiography 199). Katz and Sugrue pinpoint the significance of Du Bois's turn to data and its representation of black social life as a convergence of histories, social forces, and individual lives: "By conceiving of the Negro problem as a historical problem, contingent and ever changing, Du Bois planted the seeds of a powerful critique of racial essentialism" (24). As Daphne Lamothe also observes, "Du Bois's efforts to differentiate within the race implicitly challenged the ethnographic imperative to construct a narrative of a community, or 'field' that was isolated, homogenous, and 'authentic' because of the presumed lack of encounters with contaminating outsiders" (56). Du Bois's intervention is articulable as a narrative aesthetic: by displacing the certainty of a single African American life story, Du Bois reconfigures African American identity and history, moving it away from the essentialism of authenticity and the certainty of extinction as projected by Hoffman. The monolithic designation of race is disaggregated and re-assembled

as a complex and internally heterogeneous group of individuals whose skin designates the limits of their social opportunity rather than innate potential.

Du Bois envisioned PN as just the beginning of his "plan of studying the complete Negro problem in the United States" (Autobiography 200). Although he found no white, northern institutions willing to hire him and fund this plan, he eventually secured a position at Atlanta University and some funding to pursue a plan of research that he intended to span decades and record data about every phase of African American social life. Du Bois states that he was invested in this primarily as a data collection effort: "I put no special emphasis on special reform effort, but increasing and widening emphasis on the collection of a basic body of fact concerning the social condition of American Negroes, endeavoring to reduce that condition to exact measurement whenever or where ever occasion permitted" (214). "Reduc[ing] the condition," here, is to deflate hyperbolic images and narratives that substitute for empirical evidence of African American life. In this way, "exact measurement" intervenes in white caricature of and black gloom about racial realities in the United States. He managed to complete one decade's worth of studies, but found the second plagued by funding crises and ultimately ended by the disruption of World War I.

While Du Bois remained committed to data collection as a crucial foundation for both scientific progress and the future of African American life in the United States, he also had to face its limitations as both a tool for social change and as an adequate representation of human reality, which includes agency and spirituality. Despite having completed a nearly peerless sociological study in a discipline hungry for innovative and rigorous thought, Du Bois could not secure even another adjunct position at the University of Pennsylvania, which had sponsored *PN*. As well, Du Bois faced constant evidence that professional discrimination was hardly the worst of the irrational behaviors African Americans faced in

the United States. In *Dusk*, he intertwines the unfolding of a publicized southern lynching to his realization that no appeal to facts will secure safety for African Americans: "At the very time when my studies were most successful, there cut across this plan which I had as a scientist, a red ray which could not be ignored"—the news that "a poor Negro in central Georgia, Sam Hose, had killed his landlord's wife" (67). Du Bois responds by writing "a careful and reasoned statement concerning the evident facts" and seeking an audience with an Atlanta newspaper. But, he continues, "I did not get there. On the way news met me: Sam Hose had been lynched.... I turned back to the University. I began to turn away from my work." The clear path of fighting racism with data is now forked, and Du Bois's own role in the struggle must become multiple: "Two considerations thereafter broke in upon my work and eventually disrupted it: first, one could not be a calm, cool, and detached scientist while Negroes were lynched, murdered and starved; and secondly, there was no such definite demand for scientific work of the that sort that I was doing, as I had confidently assumed would be easily forthcoming.... This was, of course, but a young man's idealism, not by any means false but also never universally true" (67-68). The cultural desire for data was real but not in itself strong enough to topple racial hierarchy. Du Bois could never be solely positioned as a data collector; he would always be an inextricable element of the assemblage he sought to represent.

The inextricability of self from collection is formally and thematically central to the three "sets of thought" that follow from this period of Du Bois's work. *Souls, Darkwater,* and *Dusk* each combines autobiographical and sociological data with an array of narrative modes in order to represent self and group, individual and race, nation and world, as moving assemblages. The self is fully in the data set, affecting its composition and being affected by its composition. If race as a lived experience and discursive construct is unavoidably real, it

too can become data. *Souls*, *Darkwater*, and *Dusk* each critique empiricist representation of reality and its potential to drive social change at the same time as they use data-driven aesthetics to reconfigure self and group as well as narratives of progress.

The Souls of Black Folk: Self as "fugitive pieces" of data

In *Dusk of Dawn*, Du Bois provides an origin story for *The Souls of Black Folk* so casual and haphazard that it might tend to unsettle later readings of it as a carefully wrought masterpiece. Upon being asked by A. C. McClurg and Company of Chicago if he had a book manuscript, he proposes a "social study which should be perhaps a summing up of the work of the Atlanta Conferences, or at any rate, a scientific investigation" (80). But McClurg is not interested in waiting for him to write something new; they want something for immediate publication. So, Du Bois claims, "I got together a number of my fugitive pieces," essays in flight from traditional parameters of sociological, historical, and autobiographical discourse. A survey of the "fugitive pieces" begins to demonstrate the range of textual forms and forms of knowledge Du Bois assembles to create *Souls*. Its fourteen chapters are composed of what I can roughly describe as the following genres: history (2), biography (2), autobiography (2), sociological essay (4), political essay (2), fiction (1), and the uncategorizable blend of the final chapter, "The Sorrow Songs," drawing on anthropology and music history to reprise the aspirations of the "Forethought" and weave the fragments of music that have prefaced each chapter into a mashed up "message of the slave to the world" (182).

The act of assembling these genres in parallel as a kind of whole story makes an implicit critique and revision of each genre's claim to knowledge about race. The collective form of this work is thus central to its epistemological claims. Not all of these are forms primarily associated with offering information, but their juxtaposition creates the

compositional quality of a data set. Each point is formally and generically at variance from the rest but co-present in a collection that must be grappled with as a kind of whole. The autobiographical and biographical chapters insist on the reality and power of the individual within histories of groups, while, at the same, the historical and sociological chapters qualify the centrality of the individual and call attention to the many material influences on realized individual potential. The inclusion of a short story about lynching alongside histories of African American encounters with U.S. legislation suggest the events that escape official history, that may now be reached only through imagination, call into the question the extent of empirical knowledge and the social dynamics of that data's collection.

Critical readings of the multi-formal mode that is the hallmark of *Souls* have often noted its emphasis on expanding the scope of representation in order to highlight and context past exclusions. Priscilla Wald reads Du Bois's use of discursively hybrid genres to re-form narratives of national belonging as calling attention to the gaps in the national story: "Du Bois's investigation of the strange meaning of being black discloses the troubling exclusions that disrupt that [national] narrative" (220). Kelley Wagers extends this insight to some of Du Bois's less well-known prose works, including *The Philadelphia Negro*: "Refusing the dominant historiographic practices that linked narrative coherence inevitably to national consolidation, Du Bois made discontinuous histories—texts marked by gaps, breaks, and inconsistencies—into new sites of collective identification" (78).

Critics also contextualize *Souls*'s multi-formal qualities within Du Bois's challenge to the limits of scientific and social scientific discourse. As Leys Stepan and Gilman describe, formal "hybridity" is a hallmark of the critique of scientific discourse, because science on its own has never been adequate to disrupt racist assumptions. They use Martin Delany's *Principia of Ethnology* (1879) as an illustration: Delany "used the Mosaic story of the Deluge to

structure a scientific case study of race unity" (82), a strategy that "made sense within the black tradition" but also "rendered his book a cultural and linguistic hybrid unlike white scientific writings." *Souls*, too, is unlike Du Bois's own prior sociological writings as well as that of other sociologists, and it is unlike in part because of the proven inadequacy of those forms to change racism. As Susan Mizruchi puts it, *Souls* is a "border text," a "book that crosses disciplinary boundaries while helping to define them" ("Neighbors" 193), or as I would put it, re-define them by once again asking a representational form to include more types of data than it had previously been expected to.

My reading of *Souls* builds upon these conversations surrounding its form and looks to its combination of history, biography, and statistics with criticism and storytelling as a continued engagement with and critique of the desire for data. By once again expanding the scope of collection to include subjectivity as a relevant aspect of reality, in *Souls* he is both able to re-tell the story of African American identity and re-examine how data and its forms can be used to tell a story. I am not arguing that Du Bois consciously modeled *Souls* on data collection but that his immersion in a data-driven field necessitated his meditation on the role of data collection in not only representing but forming what is understood as reality, and further that Du Bois's formal innovations in life writing are homologous to data collection in ways that illuminate how an epistemological commitment to the empirical framing of reality can influence cultural production and drives formal innovation.

Collecting souls instead of lives, *The Souls of Black Folk* registers Du Bois's critique and expansion of the definition of reality that guided his prior sociological work. While the title of *PN* uses terms that represent what most white readers would assent to as describing objective realities ("Philadelphia" naming a city and "negro" naming a social group defined by non-whiteness), the title of *Souls* not only emphasizes plurality but adds a subjective

objectivity on its own terms was not enough to force a cultural reckoning. Indeed, Wald describes *Souls* as being "about objectivity" and reads its "generic hybridity" as its struggle "against preconceptions as well as expedient sociohistorical narratives" (174). Zamir has also suggested that the opening essay of *Souls* functions as an implicit critique of sociological data's scope of representation, for it "makes everything that the positivism of *The Philadelphia Negro* excludes the very basis for a true understanding of historical experience" (*Dark Voices* 98). While Zamir and others have tended to read this as Du Bois's rejection of empiricist inquiry, or a significant milestone on his way toward such a rejection, such a reading overlooks the formal similarities between data collection and the collective form that *Souls* as a whole employs. While *Souls* argues for the importance of a different kind of data, it also continues to draw on the aesthetics of parallelism and the heightened self-consciousness about the observer's role in collecting and selecting data to form conclusions.

Chapter one, "Of Our Spiritual Strivings," launches *Souls*'s revisions of the conventions of empiricist discourse by placing individual subjectivity at the center of African American reality. Its opening sentence proposes a research project that has never been carried out: "Between me and the other world there is ever an unasked question" (7). This "unasked question" centers on subjective experience: "How does it feel to be a problem?" Subjective experience has been excluded from white knowledge of African American life through lack of inquiry. As Zamir has noted, Du Bois published "The Strivings of the Negro People"—which would later become the first chapter of *Souls*—at the same time he was conducting research for *PN*. By then including "The Strivings" in *Souls*, placing it hard against historically and sociologically oriented pieces, Du Bois re-collects and thus re-forms the claims of both sociological and spiritual discourses of African American reality. He

rejects neither sociological data nor realities that sociological data currently cannot encompass; he brings them together to make claims about them both.

Beginning this work with a chapter that collects the data of Du Bois's own experience begins the inquiry into the "unasked question" of how it feels to be a problem. Of course, what "the other world" understands as a "problem" is not what we or Du Bois would call a fact, but the reality that he must constantly encounter and accommodate for its circulation as fact is. The data of experience confirms that African American experience requires negotiating the gap between self-representation and representation of the self by others, creating a troubling instance of parallel selfhood that Du Bois famously describes as double consciousness. Double consciousness as he describes it here is "this sense of always looking at one's self through the eyes of others, of measuring one's soul by the tape of a world that looks on in amused contempt and pity" (8). Many critical readings² have elaborated this concept. I seek to draw attention to how the language of its formulation also suggests that we think about how empirical inquiry and the cultural force of empiricist thought figures into the production of such consciousness. Du Bois refers specifically to the idea of quantitative measurement—the measuring tape of the soul devised by another world—that cannot capture the complexity of African American life and over which the measured have no say. The spectatorial stance of the sociological observer also plays a role in generating this consciousness. The "sense of always looking at one's self through the eyes of others" is the central dynamic of empirical inquiry turned upon selfhood—observation, or sight, is knowledge, and only an observer outside the self can see it. And of course, the impact of what this observer sees is underwritten by the idea that such a distanced, objective stance is not only possible but also provides the most realistic assessment. While there are elements of this formulation that can be seen as unique to Du Bois's experience and

particularly relevant for African American experience at this time, it suggests that the accumulation and narrativization of data can constitute an externally circulating form of selfhood that disrupts an individual's observation and narrativization of his own experience.

Because the observations and measurements of others circulate alongside and exert a co-presence with his own observations and measurements, there are always two equally present realities of self for Du Bois: "One ever feels his two-ness,—an American, a Negro; two souls, two thoughts, two unreconciled strivings; two warring ideals in one dark body" (8-9). While he continues to state that his ultimate "longing" of the "American Negro" is to "merge his double self into a better and truer self," he also states this longing in terms that do not connote merger but rather preserve parallelism: "In this merging he wishes neither of the older selves to be lost.... He simply wishes to make it possible for a man to be both a Negro and an American" (9). Du Bois describes the "end of his striving" as being acknowledged a "co-worker in the kingdom of culture." In Du Bois's formulation of subjectivity, the "dark body" is the frame of aggregation for aspirations and understandings of self that become distributed because they lack a social context in which they can be perceived as congruent.

The narrative self, constructed by what some critics have identified as the underlying autobiographical plot³ of *Souls*, takes on such a distributed quality through its shifting subjective and narratorial positions and through its juxtaposed accounts of a variety of personal, social, and professional "T" roles. This is a self that not only "tell[s] again in many ways" (15) but is told again in many ways. To elaborate how the collective form of *Souls* produces the multiple "T" roles Du Bois claims within it and how this form helps to argue for the heterogeneity and multiplicity of potential narratives for African American life and lives, I focus here on two chapters that use formal modes of juxtaposition to (re)create

encounters with data in order to force awareness of the data's formal expansions and foreclosures of perception. Chapter seven, "Of the Black Belt," and Chapter eight, "Of the Quest of the Golden Fleece," take the reader on two different trips through the black south—not because they cover different territories or different people, but because they do so in different ways. They enact what Adelaine Holton has identified as "subversive iteration": "Du Bois uses various forms of repetition, reiteration, and re-examination in his writings, not to stabilize essential racial meanings or articulate an unchanging ideological position, but rather to interrogate his own assumptions and to represent most accurately the irreducibility of black subjectivity" (26). These iterations subvert not just white ideas about black life but also the promise of data to represent life.

"Black Belt" uses the form of a first-person travel narrative to position the reader as the collector of raw data in the south. Du Bois uses this mode, however, to destabilize both the first person and travel as coherent containers for experience. Within the chapter, the narrative person is most often the first-person plural—a "we" that is never specifically named or given a reason for traveling together, and no details are given about the "T" that breaks in only a few times. Thus, the first person, the self of this chapter, is not a given entity or the source of an overriding perspective that can bring order to the data it collects. The train trip is an external, rather arbitrary frame for the collection of data that this chapter focuses on representing that does nothing to help the reader understand why he has been brought into contact with the tenant farmers and residents of the south who speak in this chapter, or what these speakers can elucidate for the traveling researcher. The question of who these observers are and who they encounter remains open, and this uncertainty highlights the disorientation that the withholding of pre-ordained cognitive frames such as place and categorical description creates.

Instead of experiencing the south as a coherent whole and its people as consistent types, the "T"/"we" of this chapter is shuttled through multiple assemblages of place and population. Once off the train, they too become a part of the assemblage, and this becoming thrusts them into a position of uncertainty, of suspended interpretation that bewilders them while allowing the places and the people they encounter to exist independent of narrative projections.

While the language of this and the other chapters of *Souls* is quite distinct from the scientific rhetoric of objectivity in PN, the juxtapositional quality of data points is a key formal quality. Paragraphs are strung together as juxtaposed observations, encountered by the reader with no framing interpretation, mechanically gathered together by the chronological unfolding of the unexplained trip rather than clearly arranged in a narrative. Information is presented in manner that does not explain how it was received, like the answers of a questionnaire without their accompanying questions. For example, one paragraph begins, "From the curtains in Benton's house, down the road, a dark comely face is staring at the strangers; for passing carriages are not every-day occurrences here. Benton is an intelligent man with a good-sized family, and manages a plantation blasted by the war and now the broken staff of the widow" (87). This is the reader's first, jarring introduction to Benton, with his house referred to before his existence itself is made known. Many questions are unanswered: How does the narrator know Benton? Is this data the result of a sociological interview, a friendly interaction, or the gossip of neighbors? Aside from a couple of more lyrical phrases, this could be an excerpt from the PN schedules, but without an explanation of the framing inquiry, the strangeness of strung-together facts is foregrounded.

The juxtapositional mode of description offers a way to accurately represent "a land of rapid contrasts and curiously mingled hope and pain" (93). The individual elements of this

land do not blend or cohere but retain their jarring qualities, lying side by side as discrete points of reality. Just as the African American community of Philadelphia is not accurately represented by blanket assertions and stereotypes, this community, too, is best conceived through a surveying mode of spatial assemblage that highlights internal variance. The narrator represents this community by composing figures through the assemblage of their physical, economic, and geographic markers, moving from person to person as from data point to data point: "Here sits a pretty blue-eyed quadroon...and yonder in the field is her dark young husband, hoeing to support her, at thirty cents a day without board. Across the way is Gatesby, brown and tall, lord of two thousand acres shrewdly won and held." He forms a survey by looking "five miles below," which brings a "white New Englander" into the frame, and then looks "five miles above" to "five houses of prostitutes,—two of blacks and three of whites." The image of a south in which two poles, the black tenant farmer and the white landowner, are representative is replaced by this survey of internal heterogeneity. These figures from across the race and class spectrum become co-present in a geography that does not resolve into a story; the land of "untold story" (91) can only be told through all of these stories, which the list-like paragraph asks the reader to hold in mind all at once, as parallel data points.

Representing "distinct characters" and "rapid contrasts," "Black Belt" constructs a subjective position that preserves the unevenness and opacity of data on the ground, before the abstraction of a map or survey. Chapter eight, "Of the Quest of the Golden Fleece," conversely, opens with the ultimate abstraction: a sweeping image of the south that conflates Greek and plantation mythology. The narrator of this chapter opens by asking the reader, "Have you ever seen a cotton-field white with the harvest,—its golden fleece hovering above

the black earth, its bold white signals waving like the foam of billows from Carolina to Texas across that black and human Sea?" (100).

Yet, immediately following this grand language, the narrator re-states and re-imagines PN's project: "We seldom study the condition of the Negro to-day honestly and carefully. It is so much easier to assume that we know it all. Or perhaps, having already reached conclusions in our own minds, we are loth to have them disturbed by facts. And yet how little we really know of these millions,—of their daily lives and longings, of their homely joys and sorrows, of their real shortcomings and the meaning of their crimes!" (101). Once again, Du Bois implies, a more exhaustive and granular collection of data is needed to surface internal heterogeneity and disrupt the established narratives in which observers typically arrange a narrow selection of evidence: "All this we can only learn by intimate contact with the masses, and not by wholesale arguments covering millions separate in time and space, and differing widely in training and culture. To-day, then, my reader, let us turn our faces to the Black Belt of Georgia and seek simply to know the condition of the black farm-laborers of one county there" (101). Placing the call for data after a comparison of the south's history to Greek myth is a subtle way of equating the assumed knowledge about black life, the "conclusions" already reached and the "wholesale arguments" already made, to myth. Narratives of racial identity and history are like myth in that they are comprehensive, fully explanatory, and divorced from empirical reality. Like myth, the "wholesale arguments" apply to such swaths of history and geography as to render realities abstract. Du Bois rejects them because they cover "millions separate in time and space" who "[differ] widely in training and culture." Myth and wholesale argument deny the granularity of reality, the meaningful differences jarringly apparent at the level of the individual data point and obscured by the abstracting distance of narrative. Readers should no more rely on such

arguments to understand the south than they would rely on the story of Jason to understand economic development.

Du Bois again leads the reader through a collection of data, but this time from a different perspective. He opens with a quantitative overview focusing on population and property value: "Here in 1890 lived ten thousand Negroes and two thousand whites.... In 1860, Dougherty County had six thousand slaves, worth at least two and a half millions of dollars; its farms were estimated at three millions,—making five and a half millions of property" (101-102). Rather than using qualitative descriptions, he uses relatively hard numbers—given their roundness, they are clearly estimates, but the difference from more general language is clear. He then goes on to relate how these values declined after abolition because the value of farmland was dependent upon the availability of slave labor. The paragraph closes with a question calling to the reader to make her own interpretation of the facts: "And if things went ill with the master, how fared it with the man?" Du Bois attempts to force the reader to grapple with the data points themselves rather than supplying a narrative explanation.

In the midst of providing statistical context for the enigmatic individuals encountered in the prior chapter, though, this narrator also makes a call for a kind of encounter with data that this mode of outlining trends cannot supply. The narrator claims, "It is easy for us to lose ourselves in details in endeavoring to grasp and comprehend the real condition of a mass of human beings. We often forget that each unit in the mass is a throbbing human soul" (106). This chapter lays out the details of economic systems, like tenant farming, and provides a quantitative assessment of where that system is leading the population (as in the statistic that in this region "only six per cent of the population have succeeded in emerging into peasant proprietorship" (118)), but unlike the prior chapter, it

does not bring the reader into imaginative encounter with actual individuals. Instead, the narrator refers to "The Negro farmer" (110) and "the average metayer" (116) as representative figures.

When the narratorial perspectives and formal elements of these two chapters are compared, the call for "intimate contact with the masses" is revealed to be a paradoxical endeavor. The more "intimate contact" with "each unit" comes through the kind of one-on-one encounters that the "Black Belt" chapter holds. Yet, the narrator of that chapter can only come into contact with a relative few individuals, while the statistical overview of "Golden Fleece" seems to allow the narrator to glimpse the masses.

Taken together these chapters reveal Du Bois's simultaneous use and critique of data as a form of representing life, individual and collective. The individuals he encounters in "Of the Black Belt" remain opaque without a broader interpretive narrative—and perhaps their embodied reality inevitably resists any narrative—while the broader narrative constructed in "Golden Fleece" cannot fully explain or even represent the lives represented in the prior chapter. By including both of these portraits, both of these methods, and both of these takes on what it is like for Du Bois to move through the south, Du Bois gives them a parallel presence and equal importance. One is not superior to the other; both are necessary. Further, if the data-driven subject is to be a human subject, there are inevitable limits to how many points one person can collect and keep in interpretive play, and there are inevitable constraints to any genre's representation of the exhaustive data collection that could fully capture the objective and subjective realities of human life, the "thought and feeling, the thousand and one little actions which go to make up a life" (131). Even when the collection of data has been massively expanded, the problem of how to determine and convey its meaning remains. The act of assembling these genres in parallel as a kind of whole but

differently coherent story makes an unsettling claim about the epistemology of data: it will surface heterogeneity even in the face of our desire for singular revelation.

Darkwater: Democracy as data collection

Darkwater: Voices from Within the Veil stands in the center of the Du Bois's three "sets of thought" representing black life. Rarely examined by literary critics, this collection of essays attempts a re-assemblage of the social through formal modes of collection that further expand the scope of data necessary to construct both a future nation and a future consciousness that will allow the self to live in a world understood as globally interconnected.

It is not just Du Bois but the Western world that has a new sense of global interconnectedness and a sense of bewilderment about composition and order of future societies at the time *Darkwater* is being composed. As Evelyn Brooks Higginbotham succinctly puts it, "the world of 1903 was not the world of 1920" (xxv). Du Bois had left Atlanta for a post in New York City with the NAACP during a time when the urban north was being reconfigured by massive African American migration. Globally, and in Higginbotham's view most crucially, World War I and the growth of media technologies representing world events made "the world smaller, the fate of nations and peoples more interconnected" (xxvi). Yet, this interconnection had not provided a means of avoiding catastrophic war in the northern hemisphere and exploitation in the southern. Knowledge of the world, circulated more widely than ever via mass media, has not generated modes of social organization and governance that allow the self to act within a social order perceived as objectively globalized. As Du Bois quotes a "great English gentleman, familiar with African problems for a generation" as saying, "there does not exist any real international

conscience to which you can appeal." *Darkwater* uses a collective formal mode to generate new points of contact between individuals who move between contingent groupings to represent a social reality in which lines of group affiliation can be drawn across race, nation, and gender and that heralds new social orders driven by exhaustively inclusive enfranchisement.

At first glance, *Darkwater* seems much less empiricist, in content and form, than *Souls* even though it is also memorably multi-formal. The collection assembles an incongruous collection of generic approaches to understanding the present and, perhaps even more importantly, the future: an autobiographical account of Du Bois's childhood, political theory, spiritual if not outright religious invocations of the need for a higher power to intervene on earth, and speculative fiction. Perhaps, as it did for many, the performance of rationality holds less appeal for Du Bois after World War I and in the midst of persistent racial violence. Arnold Rampersad has also described the narratorial perspective of *Darkwater* as prophetic, defined by the "attenuation of his old conflict between the role of the scientist and that of poet-moralist" (174). While I generally agree with this assessment, I do not agree that these roles are essentially in conflict and instead suggest that understanding data epistemology's temporality of deferral allows us to see that his prophetic stance draws directly from his critical approach to science. If ultimate knowledge is dependent on exhaustive collection, delay is not failure but preparation for eventual triumph. When the collection is complete, it is assumed and hoped, a new reality will be accessible.

In Du Bois's vision of future sociality, democracy is data collection that has not yet been completed. In chapter six, "Of the Ruling of Men," Du Bois proposes a kind of democracy of the data point. Du Bois proclaims, "The meaning of America is the beginning of the discovery of the Crowd" (50). U.S. America is composed not of a race or even races

but of a crowd, a drawing together of individuals without regard to common ancestry or education/training. This nation is set apart from earlier examples (such as France and England) because it is self-consciously an aggregator of heterogeneity. In this nation, each crowd member, each bearer of crucial but incomplete data, will co-create a social order in which "human possibilities are freed, when we discover each other, when the stranger is no longer the potential criminal and the certain inferior." This statement implies a much different definition of "crowd" than Du Bois offers in *Souls*, as Mary Esteve observes in her reading of *Souls*'s "The Coming of John" as a critique of white civilization. By dramatizing how the crowd's "law unto itself" enacts violence upon black bodies, "John" imagines crowds as white and the African American observer forever outside it. This statement in *Darkwater* continues to figure crowds as characteristic of the U.S. nation, but to a much different end. Now, the crowd is the promise of the nation, and the African American and all other formerly excluded subjects are to be emphatically included in it.

By ascribing limited but real knowledge of the world to each human self, Du Bois argues for universal suffrage as a precondition for a social order built on collective knowledge that can only be accessed through collection. Each voter is an inviolable and impenetrable source of data that can only be collected when all have a voice: "The vast and wonderful knowledge of this marvelous universe is locked in the bosoms of its individual souls. To tap this mighty reservoir of experience, knowledge, beauty, love, and deed we must appeal not to the few, not to some souls, but to all. The narrower the appeal, the poorer the culture; the wider the appeal the more magnificent are the possibilities" (68). Each soul, or each human source of the crucial data necessary to realizing the nation's potential, has an equal stake in the construction of knowledge, beauty, and justice.

Du Bois describes the history of democracy as "the history of the discovery of the common humanity of human beings among steadily-increasing circles of men" (72). Social contact is the engine of *Darkwater*'s vision of a democratic social order. This "discovery" relies on new forms of interpersonal contact, for "we do not really associate with each other, we associate with our ideas of each other" (71). New forms of consciousness will be needed to realize the discovery of the crowd, just as new forms of international conscience will be needed to lift the global veil of race. Only when this veil is lifted nationally and globally will human potential be realized—a potential which Du Bois goes on to predict will be created largely through more or less Marxist tenets of socialized industry. His turn to Marxist theory reflects historical context as well as political commitment and might seem somewhat dated, but the overall vision is conceptually consonant with present day aspirations towards new forms of community enabled by the kinds of consciousness/conscience altering tools provided by digital social networks and information circulation. Just as he endeavored not to sample in his study of Philadelphia, Du Bois's democracy will not sample the needs, desires, and wills of the people: "we must appeal not to the few, not to some souls, but to all" (68). The vital, future-oriented data that living people possess is crucial, for "by our ignorance we make the creation of the greater world impossible...and try to express by a group of doddering ancients the Will of the World." In this yet-to-be realized democracy, the living population is conceptually on a par with the past's revered thinkers, because vital knowledge is the data that can be extracted from the present for the present—somewhat of a departure for a thinker who has previously made strong arguments for empowering a select few based on ability.

Taking this crowd-sourced democracy of the individual as data point as the central political and social argument of *Darkwater* gives new significance to the work's seemingly

offhanded but consistent aesthetics of human lives as bits of a larger, collective reality. Du Bois repeatedly describes human lives in images that suggest a kind of aesthetic data point. The title, Voices From Within the Veil, begins to suggest that the collection of voices, an embodied trope of personhood, will be the process through which the book's material is assembled. Although this book does not literally collect voices (as a collection of interview or oral histories might), it does thematize the importance of individuals having not just a voice but a way to speak to each other as a precondition for democratic social order. Two other images continue this emphasis on the individual human life as small piece of a heterogeneous whole. In the concluding sentences of chapter two, "The Souls of White Folk," the narrator asks, "Is not the world wide enough for two colors, for many little shinings of the sun?" (25), equating lives to "little shinings," which in the imagistic shorthand of the Enlightenment makes each life a source of knowledge. As well, in chapter seven, "The Damnation of Women," black women are described as "like foam flashing on dark, silent waters,—bits of stern, dark womanhood here and there tossed almost carelessly aloft to the world's notice" (83). Here again personhood is compared to a small piece of illuminating material, though in this case, because the personhood in question is womanhood, its potential has been ignored. These images suggest that the human life or self is not a fragment that has a certain place to occupy in a larger puzzle being put back together but a whole among wholes that can be put together in multiple ways. The emphasis placed on reclaiming these "little shinings of the sun" and the need for voices to assemble within the veil underwrites Du Bois's vision of democracy as data collection.

In chapters such as "The Hands of Ethiopia," "The Servant in the House," and "The Damnation of Women," beneath political arguments, analysis, and at times polemics, Du Bois begins to textually realize the assemblage of a new crowd by incorporating formerly

excluded selves in the process of creating the future world and by implicitly putting those selves into relationship with his own self. Chapter seven, "The Damnation of Women," for example, opens in the mode of collective biography, assembling four racially and socio-economically diverse women together as embodying a common condition of womanhood that must be rectified to allow women to join the prophesied future: "I remember four women of my boyhood: my mother, cousin Inez, Emma, and Ide Fuller. They represented the problem of the widow, the wife, the maiden, and the outcast. They were, in color, brown and light-brown, yellow with brown freckles, and white." (78). Although most of the chapter goes on to focus on black women, this first gesture of assembling women as women is an example of how throughout *Darkwater* Du Bois uses new markers (such as Africanness or employment in the other two cited chapters) to displace race as the only way of drawing lines between groups of people.

In *Darkwater's* project of imagining the future world, a conceptual and formal reliance on the collection and assemblage of distinct, and sometimes jarringly discordant, points—lives, economic and demographic data, descriptions of people and places—is crucial to the visions of race, democracy, and selfhood that Du Bois constructs. In this work, race is not the defining feature of the history of African American life but a result of forces that intersect and shift to group individuals in various ways at various times and in various places: "There are no races, in the sense of great separate, pure breeds of men, differing in attainment, development, and capacity. There are great groups—now with common history, now with common ancestry; more and more with common experience" (48). This statement positions race as a contingent collectivity rather than an essential relation between certain individuals, a collectivity created by a self-conscious act of grouping certain individuals together for certain reasons at certain times.

Dusk of Dawn: Self as collection, race as assemblage

Dusk of Dawn: The Autobiography of a Race Concept, Du Bois's third "set of thought," turns to the genre of autobiography and turns the self into a collection of data. While Dusk does not employ the kind of overt multi-generic collective form of Souls and Darkwater, it formally enacts a different kind of collection. It groups events from Du Bois's life with global historical events to create a collective textual form of selfhood that re-conceptualizes not only the idea of race but also the agencies of the self in the context of social change.

Dusk revises traditional autobiographical form in order to represent a self that is neither totally agentive nor totally determined. Kenneth Mostern has summarized its departures from two of the most well-known formulations of autobiography, those offered by Georges Gusdorf and William Andrews: "If this is autobiography, it is surely not the story of individuality that invites the identification of the reader with the narrator, as described in Georges Gusdorf's famous analysis of the genre (1980), nor, alternatively, is it the African American testimonial with its ironizing of the dominant 'I was born' narrative' (29). Du Bois also explicitly rejects traditional forms of autobiography, stating that this third essay "threatened to become mere autobiography," which in his view "assume[s] too much or too little: too much in dreaming that one's own life has greatly influenced the world; too little in the reticences, repressions and distortions which come because men do not dare to be absolutely frank" (vii). Du Bois's self-deprecation is on one level another entry in a long tradition of autobiographers apologizing for writing about themselves, but put in the context of a career of thinking about the relationship between subjective and empirical reality, this statement indicates that Du Bois still seeks to represent a reality that resists our projective imaginations and that can be reached through the collection of accurate data.

Unlike the writers of "mere autobiography," Du Bois does not represent himself as the source or generator of his life's significance: "My life had its significance and its only deep significance because it was part of a Problem" (*Dusk* vii). Instead of focusing on how being labeled a problem constrains his individuality, as he does in *Souls*, he now places emphasis on how it has created the meaning of his life. This is not to say he now celebrates this fact, but that he stakes the significance of his life and his autobiography on his relationship to it. Du Bois values the empirical realities of the individual life, insofar as he can record them, as data through which the intellectual tools of empiricism might be used to tackle persistently human problems that hold out a far greater challenge than the taming of the material world:

The problem of the future world is the charting, by means of intelligent reason, of a path not simply through the resistances of physical force, but through the vaster and far more intricate jungle of ideas conditioned on unconscious and subconscious reflexes of living things.... I seem to see a way of elucidating the inner meaning and significance of that race problem by explaining it in terms of the one human life that I know best. (viii)

In a mirror image of the scale of *PN*, the individual self is no longer just one data point among many but composed of data points that form a meaningful field of investigation.

Instead of canvassing a ward, Du Bois will now canvass his own life, but equally to the end of representing an empirical reality of race that can assist in confronting "unconscious and subconscious reflexes" and transform racial consciousness. This is also a significant revision of his well-known claim in *Souls* that "the problem of the twentieth century is the problem of the color-line" (16). The "color-line" has been reconfigured as something much more abstract, at least at first glance, but also much more potentially malleable. This latter formulation suggests that "intelligent reason," self-conscious awareness of our tendency toward reflexive thought and action, can construct a way of moving past the limitations of

our individual minds. If we can perceive that the reality of the "race problem," as Du Bois identifies it, we can understand it differently and begin to act accordingly.

Du Bois's re-formed parameters of narrative selfhood are immediately apparent in the double meaning of the title of *Dusk*'s first chapter, "The Plot." With reference to narrative, plot suggests an internal structure driven by selection of meaningful points. But this "Plot" instead refers to a field of investigation, the external boundaries of chronological time and geographical space that mark off an area in which all details are to be collected. The chapter's opening sentences define a life as a set of years: "From 1868 to 1940 stretch seventy-two mighty years, which are incidentally the years of my own life but more especially years of cosmic significance, when one remembers that they rush from the American Civil War to the reign of the second Roosevelt...." (3). Instead of describing his own life as a story, he describes it as a temporal plot of ground. Life is an object that can be described as a space of time, like a neighborhood given coherence by its boundaries rather than its content. The emphasis will not be on how Du Bois became Du Bois (or a writer, leader, sociologist) but rather what happened in this plot of time, on a series of events that are collected under the rubric of a lifespan but do not necessarily lead from one to the next developmentally.

The events that compose this plot of a life are both local and global. They are interpersonal interactions, feelings and thoughts, knowledge of events in other countries and knowledge of events in the historical past—all of these types of events play a role in constituting selfhood according to *Dusk*, both through the material ways in which they shape experience and opportunity and in the cognitive ways they influence self-positioning. Awareness of a multiplicity of influential events and forces creates the self as "a single whirlpool of social entanglement and inner psychological paradox" (3). Du Bois is aware that his life is just one data point among many. As he closes the chapter, he states that his

purpose is to "set forth the interaction of the stream and change of my thought" in order to show "the consequent results of these for me and many millions, who with me have had their lives shaped and directed by this course of events" (7). The self is itself a collection that demonstrates the interaction of internal and external forces, and it is also part of a much larger collection of selves that, taken together, would reveal this complicated reality on a global scale.

The perpetual interaction between internal and external forces constructs selfhood not as a shifting assemblage of local and historical context, and autobiography as a form that attempts "to set forth...interaction" (7) rather than a traditional narrative or trajectory of development. This form of selfhood does not foreclose agency but presents its limits. Du Bois describes his text as presenting the self not in "causal relations" with what has changed around it but as a series of "intellectual relations" and "psychological reactions." Perceiving the self as one point in millions, and therefore assessing the influence of individual action as existing but small—creates selves that are more formed than forming. Selfhood is the interaction of heterogeneous elements, an assemblage of forces, influences, and individual potentials.

One of the central factors driving this assemblage sense of self is a perception of the world as a proliferation of data. Chapter three, "Education in the Last Decades of the Nineteenth Century," relates how his growing knowledge of the world beyond Great Barrington, Massachusetts, the U.S. African American community, and ultimately the world outside the United States forcibly re-form Du Bois's conceptions of narratives of progress. First, awareness of "the problems of my racial and cultural contacts" (25-26) separates Du Bois from "the conventional unanimity" of his classmates at Fisk, Harvard, and the University of Berlin. To his classmates and teachers, "It was a day of Progress with a capital

P," (26), and when "everywhere wider, bigger, higher, better things were set down as inevitable" (27). Du Bois lists the assumptions that govern this belief in a teleology of progress—population growth in "all the cultured lands," "transportation by land and sea was drawing the nations near," and "invention and technique" seem to offer "accomplishment infinite in possibility."

It is the self, and more specifically the racialized self, that provides the foundation of Du Bois's critique of this seemingly unquestionable narrative of progress. He writes, "Had it not been for the race problem early thrust upon me and enveloping me, I should have probably been an unquestioning worshiper at the shrine of the social order and economic development into which I was born" (27). From his awareness that he, as a black person, is routinely left out of this "Progress," comes his first point of critique, the recurrent news of lynching and experiences of segregation while attending Fisk. This critique is compounded by "newspapers which I read outside my curriculum" (28) that cover U.S. and international political news which introduce in his mind the question of how "could black folk in America...and the colored people of the world [be] allowed their own self-government?" (29). Through direct experience and reported information, Du Bois senses himself to be the heterogeneous element in the assemblage of progress, the persistently "rejected piece" that, when recognized and added to the data set of contemporary evidence of progress, will disrupt the narrative and force a reckoning with a more complicated reality.

Chapter 4, "Science and Empire," continues to demonstrate how awareness of social entanglement re-forms the scope of individual agency and the narrative of self. Having completed his formal education, Du Bois determines to "study the facts, any and all facts, concerning the American Negro and his plight" in order to "work up to any valid generalization which I could" (51). He predicts, at this time, that the problem is not with

having a "generalization" or sociological theory of race but that existing theories that project permanent inferiority have not had all the facts at their disposal. He projects that his life story will be that of a scientist who will bring about social change once enough accurate scientific work has been done to reach such a generalization.

The narrative line of this life story, though, is immediately flooded with a list-like collection of world events that take over Du Bois's consciousness and re-write his narrative of scientific purpose. In a single paragraph, he notes a series of parallel developments of empire: Japan "rising to national status" through war with China and Russia, "the expansion of Europe into Africa," and the "pushing forward of the French in North Africa" (52). As Mostern has described this formal mode, "events of his life are followed by local events, which are, in turn, followed by international events, which then always circle back to describe their local meanings" (29). This pattern continues for the next several paragraphs, creating a textual effect of these parallel social realities piling up in Du Bois's consciousness, where he is trying "to isolate myself in the ivory tower of race" (54). This intriguing formulation suggests that Du Bois's initial focus on African Americans as a subject of scientific inquiry is itself a kind of expected narrative that needs to be disrupted. There are many more forces and many more contexts in which racial difference needs to be studied and accounted for. Out of this staggering awareness of more global dynamics, Du Bois writes, "came a period of three years when I was casting about to find a way of applying science to the race problem" (54-55). Du Bois is no longer the self-possessed scientist but confronted by a complex world that his original methods do not seem ready to represent, let alone understand. Already, encounters with data are overwhelming his determination to arrive at a generalization that will encapsulate African American life—his own or others'.

The end of this three-year period is the beginning of the study that leads to the publication of *The Philadelphia Negro*, which seizes upon data collection for studying a "concrete group of living beings" that would disrupt the research trajectories of social scientists who "were then still thinking in terms of theory and vast and eternal laws" (64). He also seems to have once again taken over control of his professional destiny. Yet, he again finds this narrative of self disrupted by news of violence against African Americans and the discovery that white institutions will not hire him or fund his work. Once again, there is no clear path forward in the welter of contemporary events, and the self is not an agentive creator of that path but rather an assembler of constrained choices at the contingent intersection of external opportunity and individual desire and potential.

The chapter closes with a representation of the self fully re-imagined in terms of a contingent interaction of internal and external realities. From the initial swirl of global events Du Bois then transitions to the swirl of African American politics, and in equally list-like and thorough detail sets forth a chronology of his famously conflicted relationship with Booker T. Washington and the founding of the NAACP. Both global and local events have a role in producing Du Bois as the unlikely scientist/"master of propaganda" who emerges from his attempt to pursue disinterested science but finds political commitment unavoidable. At the close of the chapter, he writes, "One may consider these personal equations and this clash of ideologies as biographical or sociological; as a matter of the actions and thoughts of certain men, or as a development of larger social forces beyond personal control" (95-96). Each experience, or data point, of his life is simultaneously "biographical" and "sociological," with the self occupying a dual state as an expression of "actions and thoughts" and "larger social forces beyond personal control." The "T" is aware that its presences are distributed across

multiple contexts of empirical reality, an "I" that is aware that its agencies are both real in some contexts and ineffectual in others.

Du Bois's formal concatenation of experience and event re-forms life narrative in two ways. First, it creates a sense of recurring, accumulating encounter rather than development. Second, it contextualizes a subjective understanding of self in an awareness of proliferating objective realities. In so doing, he is telling us two things about himself, and by extension about the nature of selfhood in the age of data: that he exists alongside these other things and events and that he is aware of existing alongside them. He is aware of himself as a data point, and to be aware of oneself as a data point is to be neither central nor peripheral but rather to be part of an assembling and re-assembling land/thing/social-scape. Du Bois collects rather than tells the story of his life, compelled to include all he encounters personally or via the mediated representation of events going on around the globe. His documenting of the many strands of influence and awareness that assemble in different ways at different times to create his life stories foregrounds the material and cognitive relationality of self. This autobiographical self is newly hesitant about projecting or even retrospectively imposing narrative coherence on the collected experiences of a life. In this way, it is a differently apt agent for social change in that it models a contingency of self that highlights relationship and the limits of individual perception as well as action.

Awareness of assemblage against narrative condemnation

After the Egyptian and Indian, the Greek and Roman, the Teuton and Mongolian, the Negro is a sort of seventh son, born with a veil, and gifted with second-sight in this American world,—a world which yields him no true self-consciousness, but only lets him see himself through the revelation of the other world.

"Of Our Spiritual Strivings," The Souls of Black Folk (1903)

"But what is this group; and how do you differentiate it; and how can you call it 'black' when you admit it is not black?"

I recognize it quite easily and with full legal sanction; the black man is a person who must ride 'Jim Crow' in Georgia.

Dush of Danier An Essay Toward an Autobiography of the Race Concept (1940)

Dusk of Dawn: An Essay Toward an Autobiography of the Race Concept (1940)

These Du Boisian definitions of blackness are separated not only by nearly a half century but also in their underlying concept of black identity. How does Du Bois come to see the black self in this way? It has been the argument of this chapter that one answer to that question lies in understanding Du Bois's engagement with data as a concept and data collection as a representational form. In the first, he describes the African American as "a seventh son, born with a veil" (Souls 8), which suggests race is an interior, inherent, and inherited quality that permanently demarcates individuals. In the second, blackness is not fundamentally located within the individual; it emerges from the assemblage of a person, a Jim Crow train car, and the state of Georgia. This quality takes on the force of reality as it determines who may move in that geopolitical space and how, but its empirical reality is not located in the person. To understand race, Du Bois suggests via this definition, requires conceptualizing the social reality of selfhood as a collection of contingent contextual coordinates and the narratively constructed relations between them. These coordinates become apparent when the commitment to undertake an exhaustive collection of data is made, because the observing eye and transcribing hand temporarily force the mind to relinquish the explanatory assumptions that bind the scene of racial difference into a predictable, destined narrative. Understanding Du Bois as a critical empiricist and data collector provides insight into how he moves from the earlier, more or less essentialist formulation to the later assemblage-driven concept of race as constructed and contextual, and points toward routes of representational resistance to the narrative condemnation⁴ enabled by racializing projects of data collection in contemporary life.

Autobiography and sociology, in Du Bois's hands, are methods of charting and representing "the world-old phenomenon of the contact of diverse races of men [that] is to have new exemplification during the new century" (*Souls* 118) through the collection of data. The selves that Du Bois studies and constructs throughout the four works examined here range from the careful student of social problems, the doubly conscious self moving between self-perception and the perception of others, the prophetic surveyor of global realities and potentials, and the composite of social forces and contingent opportunities. Each of these selves has a different relationship to data, but each is underwritten by a fundamental relationship to empirical realities, their collection as forms of data, and their representation through data-driven forms.

In the autobiographical sketch that makes up the first chapter of *Darkwater*, Du Bois writes, "In the dark days at Wilberforce I planned a time when I could speak freely to my people and of them, interpreting between two worlds. I am speaking now." The "I" speaking here is the one of the "voices within the veil" that subtitle the collection. Read in light of his sustained effort to study and represent African American life and the effects that this these efforts had upon his own life, this can be seen as less "the" voice of a people than a shuttling among the narratorial perspectives, subject positions, and selves that these many efforts and experiences have composed. This is the kind of self that can occupy Du Bois's imagination of a world in which people move into and out of groups or exist within several simultaneously, a world for a self of narratives rather than narrative.

Notes

¹ Crime statistics were not the first form of scientific racism to gain a disciplinary or popular foothold in the United States. As Leys Stepan and Gilman note, "Scientific racism was significant because it provided a series of lenses through which human variation was constructed, understood, and experienced from the early nineteenth century until well into the twentieth century if not until the present day" (73). A list of a few of these "lenses" includes: polygenism, anthropometry, craniometry, eugenics, IQ measurement along a Bell

curve. Most of these might be considered data-driven in some way, but none of them embrace the practice of data collection and the deferral of conclusion until data collection is completed as fully as practitioners like Du Bois do or as fully as we imagine our scientific tools to be able to do so today.

² Adolph Reed has argued that, broadly speaking, three phases of interpreting Du Bois's concept of double consciousness have overseen its transformation from an isolated expression to a dominating rubric for interpreting African American selfhood and cultural production. First, it was viewed as a disabling, or at least constraining, product of oppression by white observers such as Robert Park, who described it in 1923 as "the enigma of the Negro's existence...how to be at once a Negro and a citizen" (ctd in Reed 92). Later it was taken up in a "nationalist therapeutic" mode and claimed as a defining feature of black identity, not entirely a handicap, by critics such as Robert Blauner and Carol Stack. Thirdly, it became a term of "celebratory race consciousness" (Reed 93) used to valorize and universalize black experience and gradually turned into a conceptual, interpretive framework used to largely academic rather than political ends (as, for example, it becomes a way to "recast commonplace ideas about the black American condition within the rhetorical structures of Continental high social theory" (95) in the work of Cornel West and Henry Louis Gates, Ir.). While Reed's political cards are clearly on the table in these descriptions and I do not accept all of his characterizations, I take direction from his project of "situat[ing] Du Bois within the matrix of Progress-era intellectual life" (91), rather than solely within a constructed narrative of African American intellectual tradition, and attempt to heed his caution to avoid appropriating the concept as a "non-contingent truth" (97) in order to instrumentalize it. My reading of double consciousness as an early articulate of parallel, distributed selfhood attempts to build upon Reed's placing of it within a cultural obsession with doubleness by linking it to historically emerging concept, practices, and cultural manifestations of data collection.

³ As Zamir puts it, "the unfolding of the personal life is one major strand which runs submerged through the whole of the book; it not only helps weave the fourteen chapters together, it is...an essential element in the distinctive epistemology of the book" ("Souls" 9).

⁴ Narrative condemnation is a term drawn from Sylvia Wynter's "N.H.I.: An Open Letter to my Colleagues," in which she reads the beating of Rodney King and the acquittal of the officers filmed committing that beating as an instance of the foreordained dismissal of black life and black claims to personhood enabled by the narrative structures through which black life is represented. She argues that the task of the humanist is to look to the lives of the jobless African Americans such as King in order to "undo their narratively condemned status" (70).

CHAPTER TWO

The Educations of Henry Adams: Developmental Narrative to Data Collection

My studies are indeed all directed to one point, which is pointed out to me by the station that I hold.

—John Quincy Adams, Diary, June 30, 1796

One began to see that a great many impressions were needed to make a very little education, but how many could be crowded into one day without making any education at all.... How many would turn out to be wrong, or whether any would turn out right, was ultimate wisdom.

—Henry Adams, The Education of Henry Adams (1906)

John Quincy Adams, writing in his diary as the twenty-eight-year-old son of a U.S. president, sees his life and education as seamlessly intertwined, coherent, and defined by an economy of effort that virtually guarantees his success. His "studies" are "all directed to one point," a single end of his life story clearly "pointed out" by the "station" to which he is born. His grandson, Henry Adams, writing a century later from the vantage of midlife, wants to see education the same way—as a path to social and political prominence, a narrative trajectory confirming that "a system of society which had lasted since Adam would outlast one Adams more" (21). But when he surveys the data of his own education, this "child of the seventeenth and eighteenth centuries" who "finds himself required to play the game of the twentieth" (TE 9) sees only the collection of impressions. The impression as educational experience is a haphazard substitute for his grandfather's coherent studies. He characterizes them as fleeting experiences that seem to offer meaning but frequently prove to be leading

to no education at all. Impressions imply the diffusion of effort and the accumulation of experience without a direction of development, and they promise nothing so stationary as a "station" for the erstwhile subject of education.

Collective rather than selective, proliferating points without pointing anywhere, the impression as form of education substitutes a data aesthetic for a developmental narrative.¹ The narrative self of *The Education of Henry Adams* is continually torn between the desire for unity—for a cognitive model of self, society, and history that uncovers the teleological consonance of apparent conflict and change—and the observed reality of multiplicity—a world that he perceives as objectively fraught with contradiction and a self that is "staggered" by "evidence of growing complexity" (EHA 369) of technology and culture. Reading the dualism of unity and multiplicity as a figuration of the dualism of narrative and data collection, this chapter situates *The Education*'s representation of selfhood at the crux of two ontological questions provoked by the epistemology of data: who am I, and what is the status of the human in a paradigm of pervasive empiricism? More specifically, Adams asks, is the human to be accepted as another material subject to force or as subject of force? Am I to be an Adams or an undistinguished American? Conceived in the terms of scientific history, the self of *The Education* is represented as an object through which experiences and insights are recorded as data points, a collection of equally potentially meaningful realities of the encounter between self and world. Because of its epistemological commitment to collection, this form of narrative selfhood cannot sanction the selection of meaningful points (and the discarding of contradictory evidence) that conventional developmental narrative requires. In the dual context of fin de siècle science and Adams's social positioning, this is an ambivalent liberation. While it wiggles the human out from under the entropic predictions of thermodynamics, it also untethers Adams from the trajectory of family history and his status

within U.S. American society. Adams's ambivalence, though, offers insight into the position of the humanist data collector, suggesting a paradigm of critical agency that is more modest but ever more necessary.

Data as a conceptual lens thus unites two central topics of Adams criticism—his relationship to science and his relationship to self. The autobiographical form of The Education has from its earliest reception prompted critical consternation and questioning of its implied concept of self. To T.S. Eliot, one of the work's near-contemporary reviewers, the autobiography's emphasis on the collection of details presents a depersonalized version of selfhood and generically hybrid text: "It is doubtful whether the book ought to be called an autobiography, for there is too little of the author in it; or whether it may be called Memoirs—for there is too much of the author in it; or a treatise on historical method, which in part it is" (794). Eliot's summary succinctly conveys how its events come across as agglomeration of occurrences rather than meaningful milestones: "He was born in 1838, and by 1905, when he wrote, he had known a surprising number of people in America and Europe, and turned his mind to a surprising variety of studies." Overwhelmed with details, Eliot resorts to the crudest form of summarizing, falling back on chronological dates to describe beginning and end, and only mentions briefly the "surprising number" of trivial events in between, emphasizing the work's lack of internal structure. The accumulation of event seems more notable than any single contribution Adams himself made: "He had attended to everything, respectfully, had accumulated masses of information and known nearly everybody" (795). More recently, Matthew Taylor has also noted the collecting tendency of the form and its effect on narrative selfhood: while "the first half of The Education dutifully records many biographical details of Adams's life...rather than being integrated into an evolving bildungsroman, or even accreting to offer a mosaic of

characterological or psychological perspectives on a coherent self, these episodes seem strangely disarticulated from their subject, picturing something both more and less than a self' (57). Adams's more exhaustive and more methodologically oriented account of self somehow disqualifies him from selfhood.

Why is more also a lessening of the self, and must it always be? I want to suggest that reading for the concept of data and form of data collection, and their challenges to traditional narrative, provides a way of answering this question that is historically and conceptually relevant. It is historically relevant because it speaks to social science's turn toward empiricism and the de-centering of the human that this turn begins to enact, an epistemological shift that only exacerbated Adams's sense of re-placement in a U.S. landscape of social change. Conceptually, it connects data as a medium to its subjectifying effects and highlights how those effects are perceived differently by subjects whose identity status is more tightly bound up with assumptions of agency and autonomy. The challenge is to read this more-than, less-than self as a self, for Adams's condition of confronting and presenting evidence of a life that will not be contained by a single narrative is a condition that has only been amplified, extended to describe more selves in a global surround of data collection.

I begin by reading Adams's theorization of scientific history as a data-driven conception of reality. Adams's often-overlooked work as a historian is associated with scientific history, a nineteenth-century intellectual movement toward aligning methods of humanistic inquiry with those of science. Though far from homogenous in theory and practice, U.S. scientific historians comprise a "broad trend away from what many came to consider the overemphasis on narrative by so-called literary historians like Macaulay, Michelet, and Prescott" (Jordy 3). Through repeated attempts to theorize and practice what

he would deem as a genuinely scientific history, though, Adams finds that its promise of greater clarity is continually frustrated by what he perceives as discontinuous, shocking change. Further, as he turns to scientific methods in order to get at history's underlying order, science begins to claim the reality of disordering forces. Turning this method of history upon his own life, or turning his life upon the pretensions of scientific history, he chronicles a search to discern a developmental narrative of education that will fit the modern subject to the chaos that reality seems to be. Linking the narrative form of *The Education* to scientific history's aesthetics of data collection, this chapter proposes that through his failure to narrate education Adams confronts data collection as a form of selfhood. Ultimately, he is not willing to claim this selfhood, but his lament for the lost narrative of self and history offers a lesson in building a critical relationship with data representation.

Scientific history as data-driven discipline

Addressing the American Historical Society during his 1893-1894 tenure as president, Henry Adams endorses what might seem like a bizarre endeavor for a human-oriented discipline.² "That the effort to make history a science may fail is possible, and perhaps probable," he writes, "but that it should cease, unless for reasons that would cause all science to cease, is not within the range of experience" (Adams, "The Tendency of History" 126). So powerful is the force of empiricism within Western culture, "Historians will not, and even if they would they cannot, abandon the attempt," he claims. His suggestion that "science itself would admit its own failure if it admitted that man, the most important of all its subjects, could not be brought within its range" seems not so much an earnest wager as a foregone conclusion, for it is no more thinkable in his world of the dynamo and the telephone than it is in ours of the genome and the petabyte that the

scientific approach would cede its position as the foremost method for grasping reality. His assertion that historians must attempt to make history a science and bring the human under the purview of empirical inquiry is both a bid for better results and for cultural relevance. It is almost incredible to imagine that predictive generalizations were genuinely sought: the idea that history, like natural science, could encapsulate human behavior in a formula seems like either an impossibility or an overreach on the part of empiricism. Yet, today's algorithmic determinations of things from criminal sentencing to market investment mark a reprise of such ambition. Thus, his theory and practice of scientific history offers a site in which we can track the push and pull of empiricism turned on the human.

As William Sayre describes, the scientific history Adams here proposes seeks to "define the laws of history according to which society moved and to give these laws scientific authority for the prediction of its future course" (133). This turn was driven by a changed conception of the reality of history, leading to a desire for representation of history through exhaustive data collection. Methodologically, they drew heavily on the work of German historian Leopold Von Ranke (b. 1795—d. 1886). Ranke's theorization of historical method shows clear conceptual affinity to data collection. Ranke proposed that the key value of historical research was to "reveal history as it had actually happened" (Jordy 2). The "actually" here should be understood to imply a stark difference from the goals of narrative history. Known during his academic life in Berlin as an opponent of Hegelian teleology, Ranke eschews the assumption of an underlying developmental process (or narrative form) that can be projected onto history. The historian, like the Baconian scientist, is first to undertake the "collection of particulars" and then allow these particulars to reveal underlying truths, in the form of predictive narrative. The historian's goal, according to Ranke, was not interpretation but exhaustive representation through the collection of primary source

documents. Thus, the most (relatively) unmediated sources were to be sought and the historian was to refrain from applying pre-existing schemas of understanding in presenting them. Ranke writes in 1839, "I see the time coming when we will base modern history no longer on secondhand reports, or even on contemporary historians, save where they had direct knowledge, and still less on works yet more distant from the period; but rather on eyewitness accounts and on the most genuine, the most immediate, sources" ("Methodology"). The influence Ranke's confidence in the project of data collection on scientific history in the United States is evident in Edward Cheyney's writing in the 1901 Annual Report of the American Historical Association, in which he states that the "simple but arduous task of the historian was to collect facts, view them objectively, and arrange them as the facts themselves demanded" (qtd. in Novick 38-39). Albert Bushnell Hart, addressing the same body in 1910, explicitly connects scientific practice with the ideal practice of history, confident that if historians, like Darwin, "spend twenty years in accumulating data...before he so much as ventured a generalization," then they too will find that "In history, too, scattered and apparently unrelated data fall together in harmonious wholes" (qtd. in Novick 38). Thus, the aspirations of scientific history echo the Laplacian desire for exhaustive data and anticipate current methodological considerations of Google tracking and Twitter, in which historians have started contemplating what it might be like to have access to vast archives of data recording actual human behavior and thinking in real time (Beam).

Adams imagines historical data as discrete, truth-bearing points through which an ultimate reality outside the self will be revealed. History, in Adams's view, is the ceaseless generation of material traces that constitute an objective record: "History set it down on the record—pricked its position on the chart—and waited to be led, or misled, once more"

(EHA 423). The scientific historian is one who seeks the totality of this record. As Jordy suggests, rather than looking for a "coherent idea of scientific history," the fruit of Adams's efforts to unite science and history is better recognized as "an attitude of mind" (vii). I gloss this "attitude" by emphasizing the term's meaning as a stance toward: Adams imagines the historian in the position of perceiver of data rather than projector of narrative. Adams's conception of the scientific historian is the humanistic complement of the Baconian scientist, focused on collecting particulars and "restrain[ing] themselves, until the proper season, from generalization" (Bacon 106). As he writes in *The Education*, his relationship with data is first of all receptive: "He never invented his facts; they were him by the only authorities he could find" (426). Jordy further observes, "Adams's scientific point of view...stemmed from his belief in the historical facts as hard cores of certainty existing outside the mind of the historian" (14). These "hard cores" offer an image of data points, characterized by their collectivity (there are multiple facts/cores of reality, and they must be considered together) and their externality. Any historical narrative, if it is to be epistemologically valid, must arise from the data itself and not through the intervention of the historian—or through the delusional projection of the human subject, engulfed in longing for the ordering power of providential narrative displaced by the same methods now being used to revise it. In order to achieve this end, the historian must become a collector of data, as he describes himself around 1900 in Chapter 31 of The Education: "The historian never stopped repeating to himself that he knew nothing about it [Truth]; that he was a mere instrument of measure, a barometer, pedometer, radiometer, and that his whole share in the matter was restricted to the mere measurement of thought-motion as marked by the accepted thinkers" (422). A perceiver emptied of interpretive agency, the historian is more of an instrument than a subject.

Adams's work as a teacher and writer of history demonstrates his methodological investment in data collection. His career begins in the 1870s with his stint teaching history at Harvard University. As a teacher, he "was among the pioneers in this country to introduce the scientific method...into the American university," which included a focus on primary sources and the seminar method of instruction (Jordy 3-4). Even at this early stage, the conceptual implications of this method affected the form of scholarly output. Data collection calls for collective effort, and in 1876, Adams and his graduate students published the jointly authored Essays in Anglo-Saxon Law, "an example of cooperative scholarship which was...unparalleled in American graduate education" (4). Adams practiced data collection in his own historical writing through a reliance on primary documents. While preparing to write his History of the United States, to take one notable example, he copied out large passages of his forebears' diaries—practicing a literal, physical form of exhaustive data collection similar to Du Bois's canvassing of Philadelphia. Ira Nadel suggests these copies "established a written archive of the past which would not only influence his memories of his grandfather...but also indirectly shape his handling of narrative and the past in a text [The Education] in which he conscientiously avoided the diary structure" (xx). The ninevolume work that results from this years-long process of research also demonstrates the formal influences of data collection in its voluminous length, lack of narrative closure, and observational style.

Adams's narratorial stance produces a stylistics of "stating" that drives formal parallelism and lack of narrative closure. The accumulation of recorded facts does not form a traditional narrative; rather, as Adams describes it, it proceeds as "the severest process of stating" (355). "Stating" is a formal measure of the scientific historian's commitment to collection and designates an exhaustive, collective process that frustrates narrative, which

relies on selection in order to highlight a chain of causally linked events. The parallel-izing formal effects of this method are immediately to be seen in the opening passages of the *History*:

According to the census of 1800, the United States of America contained 5, 308, 483 persons. In the same year the British Islands contained upward of fifteen millions; the French Republic, more than twenty seven millions. Nearly one fifth of the American people were negro slaves; the true political population consisted of four and a half million free whites, or less than one million able bodied males, one whose shoulders fell the whole burden of a continent. Even after two centuries of struggle the land was still untamed; forest covered every portion, except here and there a strip of cultivated soil; the minerals lay undisturbed in their rocky beds, and more than two-thirds of the people clung to the seaboard within fifty miles of tidewater, where alone the wants of civilized life could be supplied. The centre of population rested within eighteen miles of Baltimore, north and east of Washington. Except in political arrangement, the interior was little more civilized than in 1750 and was not much easier to penetrate than when La Salle and Hennepin found their way to the Mississippi more than a century before.

This is an Anglo-American and capitalist centric vision, to be sure, but it is also full of discontinuity and variation that is presented without causal linkage, surfaced by a view of the past as a data collection. In this passage, Adams has made at least two acts of selection that function as implicit judgments upon reality. He has limited his inquiry to the people of the United States of America, a political definition that includes slaves but excludes Native Americans as co-inhabitors of the continent. And he has clearly set being "civilized" as a measure of progress, denoted here by progress in consumption of natural resources and ease of transportation of people and goods. But, beyond those two initial sortings, the picture Adams paints with raw figures is full of parallelism, multiple simultaneous facets of reality that are raised to the reader's attention without being absorbed into an explicit narrative. The five million people of the United States exist alongside the millions of the British and French territories. While it seems clear that the million able-bodied white men are to be the center of attention, they exist as a statistical minority alongside the half-million slaves and three-and-a-

half million "other" whites. The well-supplied, "civilized" seaboard is placed directly alongside "untamed" land where agricultural and mineral resources wait untapped. The syntax of this passage, heavily reliant upon parataxis and semi-colons, only adds to the sense of a representation being spatially constructed (East to West) from blocks of information juxtaposed as discontinuously as "forest" and "here and there a strip of cultivated soil." As Jordy describes this map-like vision, "Adams saw the history of American nationality as a graph" (88). Adams assembles facts in order to lay out a panoramic view rather than propose an explanation for any of it. If the goal of scientific history is to arrive at generalization, but the method requires refraining from manipulation of the incorrigibly diverse data that would allow a streamlined generalization to emerge, the scientific historian is in a paradoxical position. He must state in order to narrate.

The spatialized, additive formal parallelism demonstrated in this passage arises from a commitment to exhaustivity that also troubles the status of any end of history—either of a period or human history, the course of which the scientific historian seeks to reveal—for time, objectively, continues and unfolding events could be seen as continuously new endings that cast new light on past events. Adams's *Education* is not the only work frustrated by the lack of an ending; this is also characteristic of his historical writings. As Jordy notes, "the work of some scientific historians, and none more than Adams's, seems to have no real termination" (15). Even his nine-volume history of the United States during the administrations of only two presidents ends with a series of questions and a call for more data: "For the treatment of such questions, history required another century of experience" (qtd. in Jordy 16). Data-driven history does not offer, because it cannot yet justify the selection of, an ending.

Historical narrative's lack of an ending has epistemological implications. Scientific history, like science, practices data collection in order to arrive at predictive generalizations, not permanent uncertainty, and as a discipline it aims for its conclusions to be as universally authoritative as those of natural science. Ostensibly science was to reveal a new narrative of human life that would replace the providential, and with it confirm an ending point against which the seeming catastrophes of individual and collective life could be understood. Adams puts the promise, and threat, of scientific history in narrative terms: "Any science assumes a necessary sequence of cause and effect, a force resulting in motion that cannot be other than what it is" (Tendency). This description has an Aristotelian ring to it, emphasizing a clear-cut isolate of cause and effect leading to a seemingly inevitable end. The failure to uncover such a narrative, or the revelation that narrative, "a necessary sequence of cause and effect," is not an accurate cognitive model for reality would leave the empiricist two options: qualify the predictive goals and authoritative claims of the scientific method, or understand reality as fundamentally chaotic. Neither affirms human agency and development.

The epistemological implications of these formal effects must also be understood in the context of the broader question of what the conjunction of science with history means for the ontological status of the human, a question Adams addresses in not only *The Education* but also his principal theoretical writings on scientific history, collected in the posthumous volume *The Degradation of Democratic Dogma* (1920). The three essays in this volume, "The Tendency of History" (his 1894 presidential address to the American Historical Association), "A Letter to American Teachers of History" (1910), and "The Rule of Phase Applied to History" (1909) represent a series of increasingly anxious reflections on the prospect of being able to practice history scientifically. His presidential address to the AHA presents an understanding of scientific history as an ongoing and productive

disciplinary endeavor. He states, "almost every successful historian has been busy with it, adding here a new analysis, a new generalization there; a clear and definite connection where before the rupture of idea was absolute; and, above all, extending the field of study until it shall include all races, all countries, and all times" ("Tendency" 126). The embrace and extension of scientific formula to human history is so thorough as to be almost incredible, but it is clear that Adams understands the claims of scientific history to be expansive and authoritative, illustrating an underlying assent to an empiricist model of reality characteristic of many disciplines of the time.

At this midpoint of his career, he still envisions that such generalizations could also provide insight into the future, though he has begun to doubt whether this will be of any benefit to society, because any revelation would necessarily have disruptive implications for the present: "A science can not (sic) be played with. If an hypothesis is advanced that obviously brings into a direct sequence of cause-and-effect all the phenomena of human history, we must accept it, and if we accept we must teach it. The mere fact that it overthrows social organizations can not affect our attitude" (131). While theologians and philosophers have been proposing narratives and sequences for centuries without conclusively validating one particular social order, any narrative affirmed by science would have to be, in Adams's view, acknowledged and authoritative because science had proven so instrumentally powerful in physical realms. The claims of science will have the power to displace individual belief, inevitably leading to social turmoil. Adams sees the historian as powerless before this potential revelation, projecting both an end to political agency and a seamless acceptance of science's authority for the social realm.

Over the rest of his career, Adams becomes more pessimistic about the viability of scientific history in light of the implications of contemporary physical science. As Jordy

notes, "By the time he wrote his *Education*, however, all his early affirmations have turned equivocal" (17). There is a scientific reason for this shift in tone: all sciences were, in the early twentieth century of Adams's later career, grappling with evidence that physical and social realities were far more complex than Newtonian physics predicted. As Adams writes "Rule of Phase," a treatise applying J. Willard Gibbs's phase rule to history to demonstrate and explain the transition between distinct historical phases (Burich 166-167), work in chemistry and physics has effectively ended the dream of extending the neatly predictive formulas of Newtonian mechanics to the atomic level. Adams may not have fully understood the science, but he intuited the implications of the understanding of reality proposed by theoretical physics, specifically thermodynamics and the law of entropy. Not only does science seem to fail to provide predictive laws, the laws it does provide quash any potential for human creativity and intervention into processes of decay.

The human powerlessness that Adams intuits in the findings of physics underlies his final piece of methodological writing, "A Letter to American Teachers of History." In the "Letter," Adams opens with an overview of history's former role as an avowedly humanistic discipline, in which the historian could be certain "that the energy with which history had to deal could not be reduced directly to a mechanical or physicochemical process" (11-12). Yet the authority of science has shaken this belief over time: "Sooner or later, every apparent exception, whether man or radium, tends to fall within the domain of physics. Against this necessity, human beings have always rebelled. For thousands of years, they have stood apart, superior to physical laws. The time has come when they must yield" (153). Formerly, the human had been known as what remained outside the determinist grip of physical law, the possessor of a "social energy," which, "though true energy, was governed by a law of its

own" (13). Now the human, rather than being the exception to a world of material subject to the workings of physical law, is included in that world, one element among others.

Understanding the human as subject to physical law might not be so problematic or anxiety-inducing if physical law, as Adams understood it, was not in the process of setting hard limits on human agency and developmental potential. Scientific inquiry, designed to enable prediction and mastery of the environment, has in practice thwarted both prediction and mastery with its most recent findings. Adams contends that while "Bacon's physical teaching aimed at freeing the mind from a servitude" (251) by using collected data to disrupt preconceived beliefs about the physical world, "the law of Entropy imposes a servitude on all energies, including the mental." Thermodynamics puts the science-affirming subject into an uncomfortable relationship to self and history, denying the possibility for predictive power on the microlevel of individual particles (and lives) and ensuring decline on the macrolevel of the universe (and societies). Entropy does offer one secure prediction: inevitable decline. This prediction, according to Adams, is borne out by the evidence that social change offers. In the closing passages of the "Letter," Adams cites French social psychologist Gustave Le Bon's *The Crowd* (1896) as an example of what entropic decline looks like in social terms:

That which formed a unity, a block, ends by becoming an agglomeration of individuals without cohesion, still held together for a time by its traditions and institutions. This is the phase when men, divided by their interests and aspirations but no longer knowing how to govern themselves, ask to be directed in their smallest acts; and when the State exercises its absorbing influence. With the definitive loss of the old ideal, the race ends by entirely losing its soul; it becomes nothing more than a dust of isolated individuals, and returns to what it was at the start—a crowd. (qtd. in Adams 252)

A "block" is now becoming "an agglomeration of individuals without cohesion." Increasing self-consciousness about one's "interests and aspirations" leads only to division and lack of the capacity to self-govern. Le Bon sees in this rising sense of individuality unresolved into

group identity the same diminution of the social as Adams sees in a self narrative composed of events that lack unity. In contrast to Du Bois's affirmation of the value and potential of gathering all the shining flecks of humanity, neither Adams nor Le Bon seem to see any potential in this form. For both of these observers, the perception that social reality and selfhood are composed of distinct points with no overriding, essential connection is equated with decline. What was solid has become "dust," a flurry of data points with no inherent connection, a state of affairs that leaves individuals vulnerable to destructive political fads and societies vulnerable to violent discord.

As a conflicted yet committed humanist interlocutor of scientific epistemology, Adams is understandably uncomfortable with science's claims for and claiming of the human. I argue that it is through this commitment that he finds a method of critique. Adams critiques empiricism by taking it at its word, which is to take it further than prominent scientists. Adams looks at the historical record, both collective and personal, and sees numerous data points that contradict Lyell, Spencer, and others who see Darwinism as proof of a developmental process working uniformly across time and space. "If the glacial period were uniformity," he asks, "what was catastrophe?" (EHA 213). It is the cognitive technology of data that facilitates Adams's ideal/imagination of a complete historical record and his insistence upon attention to what Lyell leaves out. His criticism of Lyell's and Spencer's selective practices demonstrates his critical awareness of empiricism's mandate to account for all the data, and explains why he endeavors to arrive at a narrative through collection.

If he is to challenge science's certainty about chaos through scientific method, both narrative and lack of narrative are untenable for the scientific historian. What Adams must seek, instead, is neither a refutation of nor reduction to narrative in a scientific age but a way

of grappling with the complexity surfaced by the data collection that is the world. His desire for an empirical approach to history leads to the perception of a self that is perpetually deand re-assembled by shifts in social, economic, and political order driven by new industrial technologies, immigration, and a cultural discourse of scientific authority. Although he represents himself as largely unable or unwilling to perceive this new self as being defined by its alternate potentials rather than its lack of coherence, this new narrative lens on the self offers a glimpse of a new form of attention to the self and its social world at the beginning of an epistemological era that we might see ourselves as still being a part of, one in which data-driven technologies of reality representation continue to supersede the plausibility of narrative and the limits of individual insight and perception.

The Education and the dissatisfactions of life as data collection

Autobiography, for Adams, is a scientific historical method applied to the self in hope of revealing the underlying order of education as a developmental process. Like geologists who "[avow] that progress depended on studying each rock as a law to itself" (TE 372), Adams undertakes to observe the self as a singular point through which scientific historical law may be found. This empiricist perspective on historical reality is central to Adams's inability to form a coherent narrative of self, or put another way, data's failure to reveal developmental narrative. Adams's empiricist conception of the self instead drives a turn to self-conscious assemblage, a linkage explained by Bernard Accardi in his discussion of two background texts, keys for understanding empiricist influences on the model of self represented by *The Education*: John Locke's "An Essay Concerning Human Understanding" and William James's *Principles of Psychology*. Though written centuries and continents apart, these texts define the mind in terms that emphasize its assemblage through the collection of

sensory impressions, the spatial organization of these impressions through a metaphor of externalized selfhood, and a lasting mental economy of impressions that can be called upon to construct multiple forms of knowledge. Just as Locke describes impressions being made upon the "white page of the mind" and later constructed into knowledge of world and self, James describes the self in terms of collection and selection: "The mind, in short, works on data it receives very much as a sculptor works on his block of stone. In a sense the statue stood there from eternity. But there were a thousand different ones beside it, and the sculptor alone is to thank for having extricated this one from the rest" (qtd. in Accardi).⁴ The data collected by the mind is not self, it is the raw material of self. Self, in the empiricist and assemblage-driven understanding, is always an act of construction via selection and grouping.

Adams's framing of the autobiography as empirical investigation drives his figuration of self as manikin. The manikin, or self as an object of observation, is not where Adams arrives as a model of selfhood but where he begins, signaling a methodological commitment to empirical observation for revealing the narrative of education. A primary reliance on gathered observations, the data points of experience, defamiliarizes the self as an exteriorized collection of facts. In his view, ego, or innate selfhood, "has steadily tended to efface itself, and, for the purposes of model, to become a manikin on which the toilet of education is to be draped in order to show the fit or misfit of the clothes" (7-8). In contrast to the two self-studiers the preface claims as forebears, Jean Jacques Rousseau and Benjamin Franklin, Adams does not assume he has a pre-existing self to represent, only an outcome of the process of education. The importance of the individual self is further displaced by the goal Adams claims in representing it, which is not to show the self but its education: "The object of the study is the garment, not the figure" (8). Adams also exchanges "education" for life as

the center of his inquiry and narrative, and education, as described in the citations above, is likened to the putting on of garments, not the pulling out of innate qualities. As Rowe notes, Adams is drawing from Carlyle's imagery in Sartor Resartus in order to revise it and offer a "repudiation of education as a process of self-discovery" (30). Instead, education "becomes the successive activities of draping, cutting and fitting garments," or put another way, repeated processes of assemblage, not revelation. The self is exteriorized, perceived as composed of a collection of experiences, events, and relationships rather than as developing from an internal effort or innate telos.

For Adams, the lack of telos inherent to a self so assembled is a kind of undistinguishing—a decoupling of self from identity and destiny, and a recontextualizing of the human as one element of an environmental matrix rather than a privileged agent.

Adams's *Education*, formally and thematically, evinces a self-conscious awareness of the contingency of selfhood upon such contextualization, which he sees as a rupture both from family history and the American culture his family helped to shape. Data-driven form, emphasizing collection and deferring or pointedly complicating acts of selection that would allow a traditional narrative to arise, plays a role in this sense of contextualization, because through it the world is represented as made up of discrete and equally real points whose presence must be empirically acknowledged.

The image of the manikin's/the third-person Henry Adams's birth introduces the method of observation through which Adams will collect the data of self and demonstrates how this method leads to awareness of the self as contextualized and contingent. Rather than suggesting a causally related series of events that lead to his birth and identity, the famous, single-sentence opening paragraph emphasizes the accumulation of material and historical circumstances that shape the child's life even before it has begun. Beginning

"Under the shadow of Boston State House..." (9) the ponderously long sentence continues to pile geographical and historical landmarks on the child being born, who is not named until the final clause. The self is always contextualized in surroundings he does not control and from the outset is subsumed by an assemblage of historical circumstances. Lest we assume that this assemblage is a singular lineage giving rise to another Adams destined for his own eminence, the next paragraph spins out an alternate potential set of circumstances for a child born in 1838, claiming "had he been born in Jerusalem under the shadow of the Temple," he would also have been indelibly stamped by circumstances. A different set of material-historical coordinates, the image suggests, would have turned the same baby into a different person. The idea of an innate selfhood is thoroughly dismantled. By recording the multiple data points, or social coordinates, of his birth in list-like fashion, Adams sees and conveys the fundamental contingency of the circumstances that form all selves.

The defamiliarization of self extends beyond the self/manikin to others in Adams's life. Adams writes, "This is the story of an education, and the person or person in it who figure are supposed to have values only as educators or education" (39). People and events are included not because of inherent significance but because of their connection to Adams's education. He writes, "Sumner, Dana, Palrey, had values of their own, like Hume, Pope and Wordsworth...here all appear only as influences on the mind of a boy." The form divorces figures from intrinsic meaning. Men that Adams met occupy the same status as writers he read, regardless of other measures of fame or importance. They become the instances of contact they had with Adams, the focal point of education as assemblage. A data-driven form exteriorizes individuals, producing them as environmental presences rather than other unique selves bequeathing inherently significant qualities.

The self as manikin places the human being firmly in the realm of material phenomenon, amenable to an empiricist perspective: "The manikin has the same value as any other geometrical figure of three or more dimensions, which is used for the study of relation." It might be possible to view this exchange of self for manikin as a brute dehumanization of the subject, or a perpetuation of the scientific trend toward seeing the human as inert material entirely subject to determinist physics. But Adams suggests it might more accurately be seen as a questioning of the status of material. The human as a category is not discarded but refigured, for the manikin "must have the air of reality, must be taken for real, must be treated as though it had life;—who knows? Possibly it had!" The playful, unexpected exuberance of the closing exclamation point highlights how this figure flickers between agentive life and dumb material. The image poses the question of whether the status of the human is dependent on absolute agency, and thus anticipates a posthuman imaginary seeking to construct a sense of humanity that is not dependent on either innate selfhood or innate ontological difference and is environmentally contextualized. The manikin gains a kind of vitality through its garments, the experiences and environments that are appended to it.

But what kind of agency does this vitality allow? Adams conducts this formal experiment in self-observation in part to answer this question. As his methodological writings on scientific history and his letters establish, Adams wrote *The Education* during a period in which the possibility of human agency was, for him, cast in doubt by the determinist predictions of thermodynamics.⁵ As Goodwin explains, for the scientific historian, "Human life considered as energy is a form of physical energy and is thus governed by the laws of physics. For Adams the most general and inevitable of these laws is the second law of thermodynamics, which states that the universe's energy is being

constantly dissipated and is recoverable only at the cost of still greater energy."

Thermodynamics thus offers a paradoxically predictive narrative: it provides formal order by representing inevitable disorder. In this context, the status of narrativity in the representation of human life serves as a complex referendum on the status of human agency, the ability to affect the outcome of one's story. The human subject's ability to discern order could refute thermodynamics's entropic ends, but confirming a single ordering of human life would also confirm the fundamental claims of the determinist science that touts thermodynamics.

The "story of an education" that proceeds from the methodology laid out by the preface is as untraditional a story as the manikin is a self. Education, as Adams conceives it, should be a form of ordering, an intervention in the raw, disordered experience of life. "From cradle to grave," he writes, education was the "problem of running order through chaos, direction through space, discipline through freedom, unity through multiplicity," which "has always been and must always be, the task of education as it is the moral of religion, philosophy, science, art, politics, and economy" (17). Adams rejects the broad, parallel form of "space" and seeks "direction," a linear, serial form, to represent education. As Howard Horowitz notes, "education…as Adams defines it, requires establishing narrative" (116). The assemblage view of education presented in the preface, though, cannot facilitate this form of education. While assemblage, the view of putting on and taking off garments, emphasizes the contingent creation of multiple educations, multiple environments to which the manikin might be fit and re-fit, education, as Adams observes himself desiring it, seeks a teleological unfolding, a progression from one garment to the next.

The tension between education as Adams seeks it and education as it actually occurs is built into the figuring of the self as manikin. The methodological onus to first observe the manikin, in all of its puttings-on and takings-off of the garments of education, generates a

proliferation of narrative data points that complicate a confident sense of causal relationship. Adams describes this effect in narrative terms. Comparing education to dramatic structure, he observes of his/the manikin's experience, "the old fashioned logical drama required unity and sense; the actual drama is a pointless puzzle, without even an intrigue" (149). The modifiers "old-fashioned" and "actual" suggest that the established narrative model ("drama") is as out of step with the times as "a child of the seventeenth and eighteenth centuries...required to play the game of the twentieth." "Actual" also suggests a commitment to a reality beyond the self, and a commitment to cataloging its contents that supersedes the desire for narrative understanding. Committed to observing this actuality, the data-driven narrator is swamped with equally potentially meaningful points. Events that used to be clearly perceptible as "an intrigue" are now smothered by the accumulation of events, as the formal qualities of the autobiography demonstrate. Every time Adams thinks he has come upon a defining crisis or a turning point, all of its lessons are invalidated by the event that follows. Adams expresses similar thoughts about the composition of his life story itself, writing in a letter to William James during the period: "St. Augustine alone has an idea of literary form—a notion of writing a story with an end and an object, not for the sake of the object, but for the form, like a romance. I have worked ten years to satisfy myself that the thing cannot be done today. The world does not furnish the contrasts or the emotion" (qtd. in Nadel xxvi). The world, or Adams's perception of it, has shifted toward multiplicity, revealing that old logical drama as a construction rather than a reality and the actual drama as unable to order a flow of events "without even an intrigue" to catalyze an internal plot.

Instead, the narrative form of the autobiography exemplifies a data aesthetic, driven by accumulation of reported event that forces the narrator into self-conscious acts of narrative assemblage that will quickly be disrupted by further accumulation. I do not claim,

here, that *The Education*'s textual affinity to data collection is literal. Adams is actually not presenting us with an unedited list of observations. As a number of critics have pointed out, Adams's ironic, aphoristic style is highly polished. Alfred Kazin insists, Adams is above all "crafty...in editing the facts of his own life; of how much he leaves out, how much he glosses over, how archly, cynically, and self-hallucinatingly he retouches material reported very differently in his earlier accounts of the same material," making him "the master of his literary trade and the willing tool of his own imagination." Nadel adds, "It [The Education] is not only incomplete, with twenty crucial years omitted, but replete with factual errors" (viii). Given these accurate and astute observations, to argue that *The Education* is literally a data collection would clearly be in error, but what I seek to call attention to is not a literal method but a formal effect or effects arising from an underlying epistemological commitment to and engagement with a data-driven view of the reality of the world and the self. The formulation of self as manikin signals a commitment to empiricism that triggers a tension with traditional narrative form. Whether Adams set out with the representation of self as multiplicity as a goal or whether it was, quite literally, the epistemological commitment to empiricism and the formal choices of *The Education* that prevented him from telling the story of a unified self and thereby creating a new form of selfhood, the form and the narrative self of *The Education* remain deeply linked. The frustration of narrative, the self-conscious claim that the story is not finished, does not imply that the text itself is less finished or that a data aesthetic requires that the text be fully non-selective. What the data aesthetic calls attention to is that Adams's selections represent a self that cannot justify selecting.

The narrative self of *The Education* is driven not just by the form of data collection but by the thematic representation of the self interacting with data. From childhood on, technologically driven shifts in his perception of the self and social incite re-assemblages of

self for manikin-Adams. Education begins at birth, but by the time "he was six years old, his new world was ready for use, and only fragments of the old met his eyes" (11). External events work to expel him from the world for which he was, from birth, in the process of being fitted. Now, "He and his eighteenth-century trogloditic Boston were suddenly cut apart—separated forever,—in act if not in sentiment by the opening of the Boston and Albany Railroad; the appearance of the first Cunard steamers in the bay; and the telegraphic messages which carried from Baltimore to Washington the news that Henry Clay and James K. Polk were nominated for the presidency" (10-11). Each of these events combines technological with social change to transform Boston's relationship to the world beyond: the railroad links insular Boston with New York and the East Coast; the Cunard steamers connect Boston with England by facilitating the first transatlantic steamship mail contract; and the telegraph carries news that the (ultimately victorious) Democrat and territorialexpansionist Polk was to be pitted against Whig and anti-expansionist Clay at unprecedented speed. Highly personal events are listed right alongside these wide-reaching ones, including his memory of "the color yellow" on the "kitchen-floor in strong sunlight" (11) and his bout with scarlet fever. Reported and experienced, national and personal, all of these historical events accumulate and drive a heightened sense of parallel, simultaneous realities.

Encounters with forms of data, which he grants the weight and presence of reality even though he does not directly perceive it, continue to frame his educational frustration. He connects the impossibility of a coherent educational narrative with the statistics for coal production: "The coal-output of the world, speaking roughly, doubled every ten years between 1800 and 1900" (454) and "the difficulties of education had gone on doubling with the coal output" (461). He writes of his brother's attempt to "build up a new line of thought for himself" by developing a "law of history that civilisation followed the exchanges," but

finds that in these efforts the "facts were constantly outrunning his thoughts" (316). No theory or narrative line can encompass the data that is constantly accumulating. It is a flood of scientific discovery (including Roentgen rays and radium), data confirming new realities of the physical world, that to Adams "snapped" the continuity of thought and delivered, around 1900, "a new world which would not be a unity but a multiple" (424). Encounters with data generated by this new world drive Adams's awareness of its seemingly novel, disturbing dynamics.

The self and the environment to which it needs to be fit is always being disrupted by the addition of new information, and so education as a developmental narrative cannot begin because Adams can never perceive its ending as secure. What is learned in each life phase builds toward a knowledge that is proven useless by accumulating events, which always provoke a shift in Adams's perceived relationship to the social and political world. Adams writes of the college-age Henry, "The education he had received bore little relation to the education he needed. Speaking as an American of 1900, he had as yet no education at all. He knew not even where or how to begin" (54). This lack of both ending and beginning becomes a refrain. After four years at Harvard, "education had not yet begun" (69). After eight years in Europe, which includes legal study in Berlin, cultural study in Rome, and an intense political apprenticeship as aid to his father, the Ambassador to England during the U.S. Civil War, he declares: "Even then he knew it to be a false start. He had wholly lost his way. If he were ever to amount to anything, he must begin a new education, in a new place, with a new purpose" (210). This cycle repeats itself throughout the text. As Sayre describes, "each chapter of *The Education* is a lesson in itself, and...many of them contradict each other" (93).

By the time Adams begins "his third or fourth attempt at education in November 1858" (71), he has exchanged the ideal of a lesson for the actuality of the impression as the foundational form of education. He finds that his sea journey to Europe provides "a great variety of other impressions which made the first month of travel altogether the rapidest school of education he had yet found." As cited in the epigraph to this chapter, Adams proceeds to describe the impression as constituting education, but in a contingent, mutable way: "One began at last to see that a great many impressions were needed to make a very little education, but how many could be crowded into one day without making any education at all, became the *pons asinorum* of tourist mathematics. How many would turn out to be wrong, or whether any would turn out right, was ultimate wisdom." Adams has deferred to the external, chronological measure of the day to contain the multitude of impressions, rather than being able to shape them into a coherent lesson. The impressions thus accrue, but Adams cannot select among them in order to form a narrative or a confidence in the gradual development of what he perceives as a useful education.

Instead of ending in a revealed unity, an order run through chaos, the data collection of his life shows education proliferating rather than consolidating. One after another, the sense-making models his reading and experience have furnished are shattered by events that will not be contained, and he concludes "the multiplicity of unity had steadily increased, was increasing, and threatened to increase beyond reason" (369). Adams never explicitly defines the "multiplicity" of which his autobiography is the study; it exists in the text as the antithesis of unity. Yvor Winters's gloss on the significance of the two terms for Adams highlights the threat of multiplicity to the agentive self: "Henry Adams saw modern history as the progress from unified understanding, or the illusion of it, towards dispersion of understanding and force" (qtd. in Colacurcio 705). Unity, Winters suggests, is understanding,

or a coherent narrative order for the world. Multiplicity, then, is the "dispersion" of this understanding into multiple narratives and therefore a diminution of "force," which Adams does define as "anything that does, or helps to do work" (439). Force, at the level of the self, is the subject's ability to act, which is also compromised by multiplicity due to its confounding of choice. Adams writes of the manikin-self at roughly age 63,

The magnet in its new relation staggered his new education by its evidence of growing complexity, and multiplicity, and even contradiction, in life. He could not escape it; politics or science, the lesson was the same, and at every step it blocked his path whichever way he turned. He found it in politics; he ran against it in science; he struck it in everyday life, as though he were still Adam in the Garden of Eden between God who was unity, and Satan who was complexity, with no means of deciding which was truth. (369)

Multiplicity diminishes the subject's capacity to act—it blocks his path and prevents decision, holding him, in the twentieth century, in the metaphorical position of the first man. Or at least, it diminishes his power to act in the ways in which he had narratively imagined doing so—choosing and following the path of a single career, arriving at the point pointed out to him by the station he believes himself to hold by appending his life to the life of a developing nation in one way or another. Further, he attributes this confounding to "evidence," the cognitive encounter with the data of difference—which, as Floridi reminds us, all data is.

Education without end is thus self without beginning, because for Adams there is no selfhood without the sense agency that unity enables. Adams writes, "Any intelligent education ought to end when it is complete. One would then feel fewer hesitations and would handle a surer world" (149). A coherent narrative of education has palpable effects on lived experience, allowing "fewer hesitations" and the sense of a "surer world." Without a coherent education, the subject will repeatedly find that choices can be neither "justified nor repudiated on the basis of any enveloping code of values" (Rowe 99), beset by hesitation in a

world of uncertainty. This is a kind of selfhood, true, but a less agential selfhood that Adams sees as a diminution. Collection displaces the narrative ends of selfhood at the same time as it displaces education as a developmental narrative.

This action-enabling unity is inaccessible to Adams in part due to his commitment to a data-driven epistemology. This epistemological stance forces him to see that unity is not a reality but a chosen perception, requiring selective attention to the world as he experiences it. In "Darwinism (1867-1868)," Adams observers of his younger self, "One had been, from the first, dragged hither and thither like a French poodle on a string, following always the strongest pull, between one form of unity or centralization and another" (212-213). Yet, even at this stage, he betrays a self-consciousness about the relationship of his own thought practices to the maintenance of an idea of unity. When he finds himself confronting contradictory data about evolution on Wenlock Edge, he determines, "He did not like it; he could not account for it; and he determined to stop it." Stopping it requires choosing to ignore his sense that important details remain to be accounted for, in evolutionary as well as other types of social theory: "He had no notion of letting the currents of his action be turned awry by this form of conscience.... He put psychology under lock and key; he insisted on maintaining his absolute standards; on aiming at ultimate Unity. The mania for handling all the sides of every question, looking into every window, and opening every door, was, as Bluebeard judiciously pointed out to his wives, fatal to their practical usefulness in society" (218). Yet, even as he records his past self's desire to stop "handling all the sides of every question," the text demonstrates that this desire cannot override the desire to collect and examine the exhaustive data collection of reality. Awareness of conflicting data is seen as impediment to action, but Adams sees facing the entirety of data as unavoidable.

With a commitment to an empiricist, data-driven view of the world, Adams the narrator cannot simply discard conflicting experiences and evidences of self. He must collect them, and this drives a persistent sense of self as multiple in a world of multiplicity. The parallel, distributed nature of Adam's emergent selfhood is demonstrated by the motifs of doubleness⁶ and proliferation that run through the text. Early on, Adams perceives a doubleness of self that is driven by his movement between parallel spaces and conceptual orderings of life: "From earliest childhood the boy was accustomed to feel that, for him, life was double. Winter and summer, town and country, law and liberty, were hostile.... Though Quincy was but two hours walk from Beacon Hill, it belonged in a different world" (14). The disruptive connections of the steamer and telegraph to which he attributes the fragmentation of the world into which he was born are mirrored in the boy's family tradition of moving households twice a year. His perceptual habit of associating different spaces with different spheres of existence shapes selfhood.

This personal, lived doubleness is accompanied by more conceptual forms of doubleness with which he frames his life. He sees himself as straddling two disjunct centuries, a "child of the seventeenth and eighteenth centuries" woken up "to find himself required to play the game of the twentieth" (9). The end of the U.S. Civil War and the assassination of Abraham Lincoln also finds Adams with an "identity, if one could call a bundle of disconnected memories an identity" (198) defined by disjunction and a life "once more broken into separate pieces." Then, again, upon receiving an invitation to teach history at Harvard University while he is still living itinerantly in Europe, "at twenty-four hours' notice, he broke his life in halves again in order to begin a new education, on lines he had not chosen, in subjects for which he cared less than nothing; in a place he did not love, and before a future which repelled" (274). As this description repeatedly affirms, Adams does

not perceive himself as having chosen or willed the doubleness that he sees as pervading his life. Doubleness is an empirical reality of self, and Adams represents it as generating parallel selves: the boy of Quincy and the student of Boston; the slowly acclimating diplomat and the rudderless American; the aimless writer and the grudging professor of history. None of these selves seems to give way to the next in a telos of identity, so each piles up against the next.

Recognizing that "the facts can never be complete, and their relations must always be infinite" (380), Adams becomes self-conscious about unity, or narrative, as the intervention of the perceiving self. In order to live in a world "where order was an accidental relation obnoxious to nature; artificial compulsion imposed on motion" (424), the self must come to grips with its role in constructing order. As he gleans from his study of the thirteenth century, "Thought alone was Form. Mind and Unity flourished or perished together" (398). Thus, in an age of revealed multiplicity rather than revealed unity, the mind must "[adjust] itself by an infinite series of infinitely delicate adjustments forced on it by the infinite motion of an infinite chaos of motion" (426). The repetition of "infinite" affirms the continual process of adjustment, which takes the narrative form of repeated beginnings, provisional and displaced endings, and thus a multiplicity of selves.

Adams thus determines the position of the truly passive historian, the perpetually receptive collector of data, to be psychologically as well as ontologically untenable. Chapter 23, "A Dynamic Theory of History (1904)," marks his arrival at this recognition with its elaboration of history as a search for, not proof of, unity. The searcher, sometimes specifically the historian and other times more broadly "man" seeking to understand the world, is figured as a "spider in its web" (439), which is spread broadly to catch the "forces of nature" that "dance like flies before the net." As an image of data collection, the web suggests both exhaustivity (it is set up to catch everything that passes near it) and a painfully

limited scope (it will only catch, or record, a small fraction of the natural forces actually at work). Working with the record of forces as the web catches them, the human subject/ historian "acquires a faculty of memory, and, with it, a singular skill of analysis and synthesis, taking apart and putting together in different relations the meshes of its trap." Memory, in this explanation, emerges as the need to store collected data grows, and analysis likewise becomes a vital skill.

Further, the analyst is aware of the multiple potential assemblages of collected data, for analysis is a skill that creates multiple syntheses, or takings-apart and puttings-together of the same evidences of natural force recorded in the waiting web. The image of the spider web in "Dynamic Theory" hearkens back to an image Adams uses to describe the state of the manikin at the end of the Civil War. When, at this juncture, he finds his life "once more broken into separate pieces" (198) and one identity rendered a "bundle of disconnected memories," Adams was already "a spider and had to spin a new web in a new place with a new attachment." This description holds in tension the dynamics of contingency and choice that the assembler of life data must reconcile. He does not choose his "new place," but he may choose what "new attachment" he will make the root of the new construction of self, and the "new web" will combine both contingency and choice as a temporary formation of self. Thus, assemblage selfhood spans both halves of this seemingly discontinuous book.

Coming to a conclusion requires suspending, at least momentarily, a commitment to perceiving reality exhaustively and thus artificially stopping the process of data collection: "For him, all opinion founded on fact must be error, because the facts can never be complete, and their relations must be always infinite." Yet, as this statement also suggests, without such temporary, knowing suspension, the work of analysis can never end. In practical terms, the observer must have an agential function. To recognize this function is to

become a data-driven narrator. As Rowe explains, Adams "redefines the idea of the unity as the function of consciousness and man's experience of this function in the relations he composes" (68). I would add that this redefinition takes on a fundamentally different form because it creates the possibility for unities, for parallel stories that must co-exist rather than giving way to a privileged version.

The Education is also marked by doubleness, formally divided into two halves. The first focuses most prominently on recording biographical details, and the second moves into more thematic and theoretical discussions of historical method, science, and politics. Some critics, such as Taylor, have seen this shift as a moving away from the self: "the second half of *The Education* divorces itself almost completely from Adams's biography. Accomplished through what appears to be a shift in genre, this withdrawal cedes 'personal' narrative to abstract formulation, 'subjective' memoir to the 'objective' historiographic calculations of The Education's 'Dynamic Theory of History'' (374). Yet, the second half retains the basic chronological chapter framework, with each chapter titled with a phrase and a span of years. If these later chapters seem formally removed from the biographical assemblage clearly linked to the self of the earlier, they also suggest that the underlying concept of selfhood has shifted from identity revealed to contingent assemblage. Narrative, historical or individual, can no longer be synonymous with reality; it bears the traces and shortcomings of individual intervention. But the construction of narratives, however temporary and eventually conflicting, is also indispensable. Rather than relieving choice and uncertainty, data, in practice, introduces the "constant imperative to choose" (Rowe 129) because there is no preordained affirmation of a correct (ethical or practical) choice. The heightened burden of choice is not evidence of the impossibility of a data-driven world view; it is the practical

proof of it. The most vital activity of the self is to think through how the self shall be assembled.

The Education's most glaring breach of data-collecting form subtly underscores the self's agency not in determining what happens but selecting how to assemble it: the twenty-year gap that separates the first (primarily biographical) and second (primarily methodological) halves of the book, a gap that includes the death of his wife. While Adams has incorporated rather than edited other catastrophic events (the assassination of Abraham Lincoln and the painful death of his sister from tetanus), this catastrophe he removes from the record, committing the Lyellian sin of selection. In addition to being an understandable reaction to personal trauma, this selection, though, is also a way of representing discontinuity, or the failure of empiricism to account for all the data points. Discontinuity becomes the foundation of assemblage, the dynamic of becoming, giving rise to sudden, profound, and unpredictable new formations, as evidenced by the shift in narrative selfhood of the methodological turn.

In its migrations and educations, begun and re-begun, Adams's life comes to exemplify not the family tradition of leadership but the emerging American vocation of flexibility as he churns through careers and philosophical frameworks. Charting his impressions, he perceives himself as multiple. The perception of multiplicity extends to his view of others' lives, too: "Between 1850 and 1900 nearly everyone's existence was exceptional" (40). In other words, Adams perceives every life during this period as a singular data point. While coal production drives the difficulties of forming a narrative for his own life, it also accompanies a "far more serious" (458) shift in the focus of human endeavor. Adams notes he "had seen the number of minds, engaged in pursuing force...increase from a few scores or hundreds, in 1838, to many thousands in 1905, trained to a sharpness never

before reached, and armed with instruments amounting to new senses of indefinite power and accuracy...making analyses that contradicted being, and syntheses that endangered the elements" (458). Technologies of data collection, these "instruments amounting to new senses," have in effect transformed human subjectivity and in the process profoundly but paradoxically altered humanity's relationship to the natural world. New data heightens the sense of human ability to understand and therefore exploit natural forces, but this understanding overlooks the reality of human dependence on natural resources. It also, in facilitating "analyses that contradicted being," seems to enable the pursuit of technological advance without consideration of the human cost, for "railways alone approached the carnage of war; automobiles and fire-arms ravaged society." Ultimately, Adams is not the only one who cannot contain his selfhood in a coherent narrative: "No scheme could be suggested to the new American" (461). Adams sees the nation as a sprawl of disconnected endeavors, just as he perceives himself as a bundle of memories with no inherent connection but those self-consciously constructed.

In short, Adams finds himself undistinguished, "exceptional" in the same sense that "everyone's existence" is. Because he is increasingly aware of multiple collectivities within the nation, he can no longer think of narrative selfhood he receives from his family as "the" American model, but must perceive himself as one of many models and as a model that must change. To take one example of manikin-Adams's fleeting but telling awareness of "other Americans," early in *The Education* he describes the transformation in education as narrative by explicitly comparing his own education to that of "outsiders, immigrants, adventurers": "The stamp of 1848 was almost as indelible as the stamp of 1776, but in the eighteenth, or any earlier century, the stamp mattered less because it was standard, and everyone bore it; while men whose lives were to fall in the generation between 1865 and

1900 had, first of all, to get rid of it, and take the stamp that belonged to their time. This was their education. To outsiders, immigrants, adventurers, it was easy, but the old puritan nature rebelled against change" (29). Instead of being stamped, the self must become re-stampable. It is not just a matter of trading one stamp for another but trading the idea of a finished, developed self for a readiness to being developed over and over again. While we should certainly question that it was "easy" for the other, less socially advantaged selves he notes, we can still find the perception meaningful. Through perceiving the multiplicity of life paths that have come to represent American selfhood, Adams is thrust out of the idea that his is or ever can be "standard."

The Modesty of multiplicity

While I have argued that we should see Adams as having gained not an education but educations, and recognize the prescient plasticity of a self who can navigate such a wide range of historical contexts, for Adams this flexibility was no virtue: "The effort for Unity could not be a partial success; even alternating Unity resolved itself into meaningless motion at last" (437). Or at least, this is how it appears to the manikin-Adams, in the midst of this seemingly failed effort. But in the same passage denigrating "alternating Unity" as "meaningless motion," we also see narrator-Adams offering this frustration as the grounds of a new selfhood—or, more accurately, a new method of constructing selfhood. Though the "old formulas had failed," the prospect of inventing a new formula of self remains: "Every man with self-respect enough to become effective, if only as a machine, has had to account for himself somehow, and to invent a formula of his own for his universe, if the standard formulas failed" (437). The "formula of his own universe" is a departure from prior goals of education. Now, "One sought no absolute truth. One sought only a spool on which

movement of the runaway star...commonly called Henry Adams." Putting himself into astronomical terms, he subtly revises the Laplacian vision of cosmology foretold with actual, erratic motion as the result of data collection. As narrator-Adams suggests, "Any school-boy could work out the problem if he were given the right to state it in his own terms"—or in terms of himself, the perpetual school-boy. *The Education* has done just that: put the formula in terms of self, and constructed that self's story as stories, without an ending until physical end.

Thus, the aftermath of doubleness and multiplicity is a modified agency, of choosing how to tell one's story in the face of the reality that there can be no single, traditional narrative against which to measure the self. Seen in this way, the self of *The Education* is not just a product of the nostalgic, conservative subject's confrontation with outdated life plans and an increasingly visible and viable plurality of value systems, but also an application of understanding the world as seen through data. To capture "the observed movement of the runaway star" (and what self would not be a runaway star in a post-Darwinian, postprovidential narrative world), one must actively seek "among indefinite possible orbits" (437). It is choice despite the determinist claims of science, because the scientific method, applied here to the self, has only further revealed the discontinuity for which it does not account. In this way, Goodwin's posthumous person and Taylor's non-person might still instead be thought of as a different kind of subject with a different kind of agency. If this subject does not realize and probably (in Adams's case) would not affirm the "utopian impulses of the varied ethicopolitical postindividualisms and posthumanisms of current critical discourse" (Taylor 393-4) with which assemblage theory is associated, it does not foreclose the possibility that it still marks an early engagement with the epistemological

questions and frameworks that may eventually give rise to such impulses and versions of the self.

Notes

¹ The individual developmental narrative, or *bildungsroman*, has frequently been argued to have a privileged relationship to broader historical and social narrative. The "linear chronological plot" (Hirsch 297) of the individual's maturing to adulthood is the foundation of the *bildungsroman*, Western literature's traditional genre of social incorporation (Slaughter 27). Disruption of this plot, therefore, is a disruption of the underlying developmental imaginary of a given social order.

² The status of scientific history in Adams's thought and literary form is always a key question in critical examinations of his work. Adams's most well-known and widely read theoretical writings on scientific history are collected in the posthumous volume The Degradation of Democratic Dogma. Literary critics have long puzzled over how to interpret the three essays in this volume, "The Tendency of History" (his 1894 presidential address to the American Historical Association), "A Letter to American Teachers of History," and "The Rule of Phase Applied to History." One the one hand, they are repeated arguments for a scientific method of history that, quite literally, attempt to apply findings from the physical and chemical sciences. Given Adams's lifelong practice of keeping up-to-date on the latest scientific writings, the number of times he returns to the idea of a scientific history in his writings and letters, and the broadly shared nineteenth-century enthusiasm for applying scientific methods to humanistic studies in the hope of getting the same kind of technologically leverage-able results that physical sciences had, there are reasons to believe these attempts are in earnest. Clive Bush argues, "from the beginning of his career Adams showed himself as anxious as any nineteenth-century historian—Thierry, Buckle, Comte, or Taine, among countless others—to penetrate the veil of events and deliver an unchanging truth about historical process" (42). On the other hand, the tone of these writings is obscure and idiosyncratic. Many of the ideas he proposes now seem so clearly unworkable that some critics have argued that they should be read satirically. Keith Burich, for one, argues that "The Rule of Phase" is intended "as a good-natured but pointed jab at his fellow historians for naively assuming that the future is determined by the past" (163). Both of these lines of interpretation seem to have important insights to offer given Adams's astute take on the always-tenuous human grasp on useful knowledge, his consistently ironic tone in letters and other writings, and a cultural/historical context that urgently brought the question of the relationship between humanity and science to the fore. Perhaps the most cogent approach is to recognize Adams as a conflicted yet committed humanist interlocutor of scientific epistemology, as James Young suggests: "Adams is queasy about the results of his scientific pursuits and fully aware that science, and the technology it breeds, creates terrible dangers on a planetary scale. Yet he is also deeply intrigued and sees no alternative to accept science as the path to knowledge. He is so committed, in fact, that in the late essays he pushes the argument to a point where, if taken literally, it threatens to slide into absurdity. But he still remains a scientific modernist" (237).

³ Or at least, this was how U.S. historians tended to interpret Ranke's famous motto, "wie es eigentlich gewesen." See Iggers: "Unable to understand the philosophic context of Ranke's historical thought, American historians detached Ranke's critical analysis of documents, which they understood and which suited their need to give to history scientific

respectability, from his idealistic philosophy, which was alien to them. They transplanted the critical method and the seminar into the intellectual setting of late nineteenth-century America. Ranke thus came to be viewed by almost all historians in the United States (by those of the "scientific school" as well as by the "new historians" and the relativists) as the father of "scientific" history, as a non-philosophical historian concerned with the establishment of facts, particularly in the political and institutional realms" (18).

⁴ Although these descriptions share an empiricist conception of the mind, there is a subtle but important difference between the ends of the assembling processes that they project. For Locke, the end of all this collecting is to arrive at truth, a single foundation upon which to build future knowledge. James, though, does not see the end as singular truth, of self or reality, but as a selection of one among many possible formations of knowledge. There are thus many possible selves. This is exactly the source of the anxiety that Adams cannot turn to pre-existing narrative forms to resolve.

⁵ As Goodwin elaborates: "What order and meaning the historian can provide are in calculations of energy and of massive phases abstracted completely from human factors. Within three years of completing *The Education*, Adams elaborated the theory in two essays, "The Rule of Phase Applied to History' and 'A Letter to American Teachers of History.' The analogy between history and physical science reaches its terminus in the Letter. Human life considered as energy is a form of physical energy and is thus governed by the laws of physics. For Adams the most general and inevitable of these laws is the second law of thermodynamics, which states that the universe's energy is being constantly dissipated and is recoverable only at the cost of still greater energy. The tendency of history is thus the tendency toward entropy and the historian must 'define his profession as the science of human degradation."

⁶ Emily Donaldson Field has connected this doubleness to DuBoisian double consciousness: "My contention is that the genealogy of the discourses of alienation and fragmentation claimed by and for the modernists involves a crucial, interracial intertwining; we can see Adams and Du Bois as perhaps unwitting collaborators in the formation of a worldview that would become central to the early decades of the new century." While I concur with Field that the two works share formal features that place them in critical conversation, I do not want to transport a DuBoisian concept of double consciousness as an interpretive lens for Adams, but instead seek to discern an underlying epistemological bent or methodological commitment that drives their transformations of selfhood. For both, doubleness is driven by a quality of exteriority that arises from observing the self in history rather than narrating it.

⁷ This somewhat self-pitying assessment of immigrants as having an easier time adapting modern American life brings up the question of whether we should read Adams as a representative American of any kind; he is undeniably exceptionally privileged socially and materially. Critics have generally reached one of two broad conclusions about the relationship between Adams's social position and his autobiographical discourse. For some, his elite status enables him to be the voice of a paradigm shift; no one is better-positioned to observe the changes that shape his lifetime. For others, his privilege compromises the relevance of his insights, and the anxiety about self that runs through *The Education* is simply a patrician's lament in a more pluralistic age. As well, there are problematic expressions of anti-Semitism, nativism, and condescension toward women in many of his writings, especially those of his later career. Freda Fuller-Coursey offers a summary of the conflicting interpretations of Adams and his work: "Henry Adams has been associated by various

writers with proto-modernism, modernism, postmodernism, deconstruction and structuralism...gender issues. Henry Adams has been called an 'improvised European,' an expatriate, a patriot, a medievalist, and an exile.... Henry Adams has even been accused of panic-based 'racist' fear..." (122). These observations suggest that Adams's anxiety about the future is an anxiety about democratically enabled social regression, leadership by the mass rather than leadership by the best, among which he counts himself as "belong[ing] to a family in which statesmanship is preserved by propagation" (cited by Banta 49). Granting that this assessment holds some truth, I would still suggest that in *The Education* even this strain of narrow concern for self holds important insight into a shifting awareness of the self's relationship to social collectivities.

CHAPTER THREE

"Contiguous but widely separated" Selves: Im/migrant Life Narrative as Data-Driven Form

"Transportation and communication have effected, among many other silent but far-reaching changes, what I have called the 'mobilization of the individual man."

—Robert Park, "The City: Suggestions for the Investigation of Human Behavior in the City Environment" (1915)

"In the last fifty years a vast change has taken place in the lives of our people...the building of the interurban car lines that weave in and out of towns and past farmhouses, and now in these later days the coming of the automobiles has worked a tremendous change in the lives and in the habits of thought of our people of Mid-America...in every household, magazines circulate by the millions of copies, newspapers are everywhere. In our day a farmer standing by the stove in the store in his village has his mind filled to overflowing with the words of other men. The newspapers and the magazines have pumped him full."

—Sherwood Anderson, Winesburg Ohio (1919)

"Reading a newspaper is like reading a novel whose author has abandoned any thought of a coherent plot."

Benedict Anderson, *Imagined Communities*

Surveying early twentieth-century Chicago, empirically minded sociologist Robert Park sees not a continuous place but "a mosaic of little worlds which touch but do not interpenetrate" (40)—ethnic and class enclaves created by the "great masses of the rural populations of Europe and America" who have been "drawn from the isolation of their native villages" and that constitute the distinct cultural milieux he terms "moral regions," a conflation of space and character that suggests the context-dependent instability of any given individual's identity. The "mobilization of the individual man" (40) that he sees as

responsible for this instability is driven by two vectors of mobility: "transportation and communication." Trains and newspapers, in Park's view, "have multiplied the opportunities of the individual man for contact and for association with his fellows" and make it "possible for individuals to pass quickly and easily from one moral milieu to another." Thus, both physical and cognitive forms of mobility define the selves who undertake "the fascinating but dangerous experiment of living at the same time in several different contiguous, perhaps, but widely separated worlds."

Park's focus on im/migrant¹ subjects as the harbingers of mobilization is hardly surprising given the national context in which he writes. The turn of the century saw a particular surge in European immigration to the United States through eastern points of entry: roughly 14.5 million arrivals, predominantly from southern, central, and eastern Europe instead of northern and western (Gerber 35). Movement across the western and southern U.S. borders continued, and African Americans were also moving en masse from south to north and rural to urban settings. Immigration and internal migration were transforming a "small, rural, provincial, and British-dominated country into a large, modern, polyethnic, and increasingly urban nation" (Sollors 38).

Yet, as Sherwood Anderson also observes, physical mobility across international borders or state lines was not a precondition of mobilization nor was lack of physical mobility a protection against its destabilization of self. The *Winesburg* narrator asserts, "vast change has taken place in the lives of our people" (65), driven in part by other people whose "shrill cries...come among us from overseas" are carried not through physical presence but through cognitive technologies of mobility that connect rural and urban spaces in new ways. Further, these media "are everywhere," as omnipresent and always on as the Internet now seems to be. In the assessment of the narrator, even the most ordinary and stationary of

individuals—the "farmer standing by the stove in the store in his village"— experiences a kind of distributed consciousness, having "his mind filled to overflowing with the words of other men" because "newspapers and magazines have pumped him full." Such awareness pushes the spatial terms of communal bounds. Now, the farmer is "brother to the men of cities." To the narrator, this is a loss of both ignorance and innocence which leads only to "talking as glibly and senselessly as the best city man of us all" (66). To Anderson such distributed consciousness is loss, the destruction of a coherence that was whole if limited. Unified selfhood is no longer accessible to the nation or the farmer due to the omnipresence of difference both directly experienced and represented. His précis of the effect of nationally distributed media on selfhood suggests that the disarticulation of physical and cultural location may begin most visibly with im/migrants but radiates outward in part through the representation of their presence and their difference.

Both of these commentators place a scene of reading at the center of their speculations on social disunification due to individual mobilization—the farmer at the stove, the im/migrant Chicagoan skimming a foreign language paper between trains. Further, they specifically place the reading of newspapers and magazines at the center of this scene, print forms that Benedict Anderson has described as using "calendrical coincidence" to aggregate and represent diverse, unrelated, and geographically disparate events. In doing so, they simultaneously anticipate and counter Anderson's attendant claim that the reading of newspapers works to consolidate a national imaginary, its regular and widespread circulation allowing the reader to observe "exact replicas of his own paper being consumed by his subway, barbershop, or residential neighbours...continually reassured that the imagined world is visibly rooted in everyday life" (35-36). The reading of newspapers is so much a part of modern national reality, Anderson continues to suggest, that its fictional representation is

a hallmark of the modern national novel, until "finally, the imagined community is confirmed by the doubleness of our reading of our [protagonist] reading" (34). Through newspapers, read and read about being read, he contends, the "fiction" of nation "seeps quietly and continuously into reality" (36).

Park reads this scene of reading quite differently. For him, it is a "fascinating but dangerous" development for modern society: "The easy means of communication² and transportation, which enable individuals to distribute their attention and to live at the same time in several different worlds, tend to destroy the permanency and intimacy of the neighborhood" (9). Subscribing to newspapers in multiple languages, each a conduit for news from a different national space and cultural frame, allows people to keep up with what is going on in multiple places, a task formerly accomplished by and therefore limited to face-to-face interaction (at least in Park and other sociologists' theorization of the primary group). The train also carries the mobilized self through diverse spaces of contact, in which the traveler might be called upon to speak different languages, engage with different codes of behavior, and assess the requirements of multiple social locations (e.g. work, city parks, ethnic neighborhood).

Later in his career, Park expands his theory about the unique formal properties of news and how these formal properties affect readers in "News as a Form of Knowledge" in ways that clarify the threat to social cohesion he attributes to reading newspapers specifically. Working from William James's distinction between "acquaintance-with" and "knowledge-about," Park theorizes that news is a publicly circulating form of knowledge-about, which is "formal knowledge; that is to say, knowledge which has achieved some degree of exactness and precision by the substitution of ideas for concrete reality and of words for things" (672). News is knowledge mediated through language and with "some degree of exactness,"

granting access to realities far beyond the direct, experiential contact of "acquaintance-with" knowledge. In his description, news takes the brief, condensed form of the data point; it "comes to us, under ordinary circumstances, not in the form of a continued story but as a series of independent incidents" (676) that take "the form of small, independent communications that can be easily and rapidly comprehended" (677). The knowledge endeavor of news is distinct from history because "it deals, on the whole, with isolated events and does not seek to relate them to one another either in the form of causal or in the form of teleological sequences" (675). News is knowledge about the past that masquerades as a "specious present," giving the impression of simultaneity that is furthered by an increasingly connected culture of information. The brevity, temporality, and reality claim of news combine to give the reader or listener the impression that they "may now actually participate in events—at least as listener if not as spectator—as they actually take place in some other part of the world" (687). In this way, newspapers work to disarticulate the reader from shared space and time by rupturing the imagined experience of sameness with the awareness of the reality of difference.

Park and Sherwood Anderson's readings of newspaper reading instead figure the im/migrant life as not only the product but the propagator of cognitive mobility. Taken together, these readings point to a convergence of the desire to know reality through data collection, the narrative representation of im/migrant lives, and the emergence of modern selfhood as a relationship to data flows. They suggest that it was not just the empirical reality of an ethnically heterogenous nation, which had always already been a reality, but also the perception of that heterogeneity that generated debate over the nature of national identity and helped to proliferate the cultural and disciplinary sites of that debate. As Susan Mizruchi describes, the United States in the early twentieth century is "a society in which there is a

great deal of interest in the emerging fields of social science, generated by widespread perceptions of intensive social change" including "unprecedented rates of economic growth, urbanization, and industrialization and unprecedented levels of labor unrest and immigration" (*Sacrifice* 15). In this chapter, I examine early twentieth-century U.S. texts that both respond to and broaden the perception of heterogeneity through their representation of im/migrants—or as they would conceive of them, mobile selves—in forms inflected by data-driven methods of researching, representing, and understanding nation.

This chapter focuses on U.S. immigration of the early twentieth century as an illustrative instance of sustained inquiry into selfhood in which the collection and interpretation of data intersects with the representation of lives and questions of sociality. This period's debate over immigration provides a historical example of the nexus of nation, narrative, and self approached through empirical methods. My goal is not to reveal anything new about immigration per se, but rather to illuminate how immigration is theorized at the intersection of life data and life narrative. Through data-driven form, these texts address the mutability of self and nation in the context of physical and cognitive mobility. Selves have always played multiple roles in shifting contexts, but what data-driven representational forms do is facilitate the perception of these multiplicities. Data is the form through which this mutability is revealed and represented, and data-driven narratives argue powerfully against identitarian and biologistic models of self and nation through their dynamic assemblage of parallel selves.

In order to demonstrate how parallel narrative forms that data generates intervene in identitarian forms of nation thinking, I begin this argument by contextualizing the heterogeneity that data collection surfaces in the rhetoric of national homogeneity. What follows are readings of three texts that position immigrant life writing as a source of data.

From this data, the narrators of these texts argue for modern and modernist forms of selfhood, "mobilized" in the Parkian sense and represented through narrative forms that emphasize parallelism and assemblage as alternate logics of the self and the social. I begin with the sociological text The Polish Peasant in Europe and America, an influential work that theorizes sociology as an empiricist discipline and undertakes massive data collection in order to arrive at a predictive law of social change but ends in proposing an assemblage model of modern selfhood. I then turn to the collection of "lifelets" published in New York magazine The Independent collected as The Life Stories of Undistinguished Americans edited by Hamilton Holt and published in 1906. The lifelets, I argue, formally and thematically imagine the nation as a data collection, and engage in an assemblage thinking of nation. Finally, I examine The Soul of an Immigrant, the autobiography of a sociologist and immigrant, Constantine Panunzio, who posits a model of American consciousness driven by contact and re-assemblage rather than the innate, inexplicable "consciousness of kind" that had previously been deployed to cast national identity as immutable and racially based. The methods of data collection that these texts propose draw on the epistemological commitment to exhaustivity in order to disrupt overly selective narratives of social change. Additionally, their commitment to data collection underlies a more receptive stance that marks these representations of im/migrant lives as seizing upon data's dissident representational potentials. As Martha Banta notes, most of the time receptivity was not the default stance: "Rather than adjusting the idea of applied sciences and the social sciences to accommodate the presence of the wilder facts, 'uncouth forms' were expected to do the adjusting: this includes all nature of men but especially women, children, blacks, and immigrants—those social elements designated as the irrational forces requiring careful containment" (28). The willingness demonstrated by these narrators to let the data of

im/migrant lives propose a model rather than justifying the need to impose a model on them is suggested and supported by the epistemology of data. Data as a conceptual lens upon reality draws our attention to and produces reality as a collection of points, initially unconnected but available for multiple acts of assemblage. Whether these acts are performed by the analyst of social reality or the immigrant, they are willed, contingent, and provisional. Re-framing immigration as mobility, these data-driven life narratives undistinguish Americans through their insistence on internal heterogeneity as reality at the level of individual and society.

"A passion for homogeneity": Narratives of national identity and destiny

As it had been for both white supremacists and progressives in the wake of Reconstruction, data was at the center of progressive as well as conservative efforts to grapple with immigration and more broadly with the question of U.S. heterogeneity driven by mobility. The turn to data reflects "a massive trend in the intellectual history of the late nineteenth and twentieth centuries. Hopes and fears alike received scientific credentials; and men looked on the human universe in increasingly naturalistic terms" (Higham 134-135). Perhaps the largest project of data collection undertaken to credential the hopes and fears surrounding immigration was the U.S. Immigration Commission, also known as the Dillingham Commission. Legislated into existence in 1907 largely at the behest of pro-immigration factions, the Commission was intended to leverage the delay inherent to mass data collection projects to hit pause on heated debates over restrictionist public policy, allowing time for further political organization among anti-restrictionists (Higham 130). The desire for and the belief in data as a means of representing an unbiased and comprehensive vantage onto reality was central to the Commission's work, and to progressive reform efforts

in general. As historian Robert Zeidel points out, they "believed that investigation and analysis carried out by properly trained experts would equip policy makers with the means to eradicate social blight. Backed by statistical studies that provided the requisite certainty, reformers could ascertain the 'true' nature of a problem and then find and implement the right solution" (4).

By the time the Commission's 42-volume report was released in 1911, however, nativist politics were again in ascendance, and the report "cast its mountainous social and economic data in the form of an invidious contrast between the northwestern and southeastern Europeans in the United States at that time" (Higham 189). Despite drawing from one of the largest data collections ever assembled, the report constructed narrow and teleological narratives of immigrant destiny that supported restrictive immigration policies. Famously, the reports claimed that "new" immigrants from eastern and southern Europe were less likely to learn English and become self-supporting than the "old" immigrants from western Europe had been. Of course, this empirical finding was largely due to the urban destinations of this "new" immigration, a setting which made it less necessary to learn English and did not lead to ownership of land, but the report casts it as inherent to immigrants themselves, if they are from certain regions, and as a fixed trajectory that is detrimental to the nation and must be curbed.

The report supplies an official version of a fixed, mainstream narrative to which more progressive assessments of immigration must respond. Well known-narrator of immigrant success Mary Antin, for example, cheekily contests the report's conclusions in her autobiography *The Promised* Land by making one of her primary educational champions a teacher named "Miss Dillingham" (Karafilis 129) and more directly in her anti-restrictionist tract "They Who Knock at Our Gates." Antin accuses "experts and statisticians" of using

data to make conclusions about immigrants lives' rather than recognize potentials: "They have filled volumes with facts and figures, comparing the immigrants of today with the immigrants of other days, classifying them as to race, nationality, and culture, tabulating their occupations, analyzing their savings, probing their motives, prophesying their ultimate destiny" (9-10). Through data, individuals are grouped into homogeneous and homogeneously inferior categories, with an "ultimate destiny" that bodes ill not only for themselves but also for the nation.

This prognostication rested on the "ideal of the homogenous nation state" (Sollors 37), which projected a racially homogenous, and therefore culturally and politically harmonious, U.S. citizenry on an ascendant path toward civilizational perfection. As Matthew Frye Jacobson has noted, immigrant life narratives in this period were looked to as "parables of progress" in which "the figure of the foreigner served chiefly as a measure of the distance between American 'civilization' and some notion of wretched 'barbarism' or 'savagery" (109). In order to understand the significant difference the data aesthetic makes in narrative representations of the U.S. nation, we need to contextualize it in two very common and very fixed narratives that undergirded this ideal: that of nation as founded upon racial identity, and that of national destiny as dependent upon the maintenance of that racial identity. Versions of this narrative can be found in both national political debate and contemporary sociological method.

South Carolina Senator Frank Gary's 1909 address to Congress, delivered in the midst of the work of the Dillingham Immigration Commission, provides a representative example of the logic of national homogeneity. Gary opens his speech by expressing alarm at the pace of immigration from Europe and Asia and predicts the consequences of allowing it to continue: "Whatever may be the feelings excited in us when we consider the two classes,

whether they be feelings of admiration or disgust and loathing, still the ultimate effect upon the peace, morality, and homogeneity of our race will be the same from each class if the importation is unchecked" (3). The "homogeneity of our race" is seen as equivalent to and equally important as peace and morality. Peace will no longer be attainable, for "the history of the world does not record an instance where two races have at one and the same time occupied the same territory upon terms of equality.... Where two races are trying to occupy the same territory, one of three conditions must be brought about inevitably—either amalgamation, extermination, or subordination of one to the other" (10). Again, racial homogeneity is the key to national security. "Amalgamation" is made equivalent to "extermination" and "subordination." National identity is equated with racial identity, which is of course seen as a fixed potential, a collective life narrative of failure doomed to continued failure. Gary quotes Census-master Francis Amasa Walker's famous and polemical description of contemporary immigrants: "They have none of the inherited instincts and tendencies which made it comparatively easy to deal with the Immigration of the olden time. They are beaten men of beaten races, representing the worst failures in the struggle for existence" (11). Immigration must be constrained, or democracy will perform its cruel trick of making such inferiors formal equals. It is not the observer's "admiration or disgust" that drives this assessment but the objective danger of heterogeneity. In addition to the fact that it conflates material disadvantage with innate difference, Gary's speech exemplifies a logic that brooks no imagination of social fluidity or re-assemblage. His race thinking is inseparable from his nation thinking. Races are forever separate and forever hierarchical although his very anxiety betrays his lack of faith in both the fixity of race and the innate supremacy of his own.

Gary's political rhetoric draws heavily earlier sociological theory. Sociologist Franklin Giddings argues for the foundational importance of national homogeneity to the progress of civilization in his widely assigned textbook, *Elements of Sociology*:

Civilization cannot be defined in a phrase, because it includes many things, all of which are essential. It consists in the adoption of a permanent territorial home and of habits of settled life; in the supremacy of the state and, therefore, of the social constitution over the entire social composition; in the substitution of mental and moral resemblance for kinship, as a basis of social organization; in the assimilation of various population elements in a new and larger ethnic unity; in an integration of the social composition; and in an increasing homogeneity in politics, religion, manners, and habits. Chief among these elements of civilization, however, is that sympathetic and formal like-mindedness which is unlimited by ties of kinship and which, manifesting itself in a passion for homogeneity in the nation, creates those policies of military discipline, religious conformity, and moral requirement that result in national and social unity. (288)

His definition of civilization seems to provide a glimmer of diversity, for civilized groups are seen to be "unlimited by ties of kinship" and incorporate "various population elements in a new and larger ethnic unity," but the end result is still more unity, more resemblance, more identity, and an undying "passion for homogeneity." His claim is that one need not be racist to concur that further diversification of the populace will be detrimental to the nation if homogeneity is imagined not only as a positive good but as a requirement for civilizational advance.

The sociological arguments for homogeneity align with nativist politics, and both of these forms of nation theory rely on being able to draw clear boundaries between what and who is within and beyond the nation. John Higham's influential definition of nativism suggests how the Parkian mobilized individual threatens this "certain kind of nationalism," rooted in the belief that "some influence originating abroad threatened the very life of the nation within" (4). Nativism, Higham aruges, "should be defined as intense opposition to an internal minority on the ground of its foreign (i.e., 'un-American') connections" (4).

Immigrants are the embodied introduction of "influence originating abroad," and those who lead the life of Park's mobilized man sustain multiple forms of foreign connection through continued engagement with multiple cultural spaces. Further, nativism casts this difference in racial terms. Racial nativism, as Higham explains, is distinctly focused on an essentialist definition of who was or could be American. Anti-Catholic and anti-radical nativism "declared what America was not, more clearly than what it was or should be; they aimed from the outset to define the nation's enemies rather than its essence" (3). Racial nativism, conversely, "began the other way around." In the increasingly science-oriented culture of the late nineteenth and early twentieth centuries, nativist thinkers joined in the endeavor to prove their arguments with data. Higham notes, "To vindicate its intellectual pretensions and rationalize its emotional tone, the Anglo-Saxon tradition more than ever needed restatement in the form of a scientific law" (149). Without the reality of essential race identity, nativism would be empirically untenable and, perhaps, less culturally and politically powerful.

Nativist thought has an aesthetic analog in what Walter Benn Michaels has identified as "identitarian claims" (6) common to both nativism and literary modernism, which he sees as dual "efforts to work out the meaning of the commitment to identity—linguistic, national, cultural, racial" (3). Michaels identifies a thematics of family running through the work of modernist writers such as Faulker, Fitzgerald, and Cather that represents the attempt to "transform American identity from the sort of thing that could be acquired (through naturalization) into the sort of thing that had to be inherited (from one's parents)" (8). This turns "American" into an identity, a term that "designates not a set of social and economic conditions but an identity that exists prior to and independent of those conditions" (8-9). Identity pre-supposes its own reality and fixity, cognitively enacting the kind of projective

thinking that empiricist inquiry attempts to short circuit through the insistence on first gathering data.

For Michaels, identitarian thinking also enables the complacent tolerance of pluralism, for "it is only for the pluralist that identity—the difference of oneself from others...is absolutely crucial since only the pluralist, striving to see the different as neither better nor worse, must like it or dislike it on the basis of its difference alone" (14). In pluralist thought, difference must be real and permanent. Thus, what seems progressive can reify cultural differences that would be better understood as material inequalities and ultimately performs the nativist "double gesture of disarticulation" by severing identity from citizenship and culture from actual beliefs and practices. Pluralism, in Michaels's reading, commits the same intellectual error as nativism, "deriving one's beliefs and practices from one's cultural identity instead of equating one's belief's and practices with one's cultural identity" (16). Instead of asking, "what is Polish?" "or through what beliefs and practices could we identify someone as Polish?" the pluralist invested in fundamental difference would designate someone as Polish and then subsume that person's beliefs and practices under that rubric of identity, making it the source and explanation of difference, and, like nativism, preserve an essential and real distinction between the "Polish" and "American" subject.

Reading even the more progressive melting pot thinkers, such as Randolph Bourne and Horace Kallen, tends to bear Michaels's argument out. While they advocate for immigration in general and for the preservation of ethnic difference, they do so in terms that forever separate those born in other nations. Kallen proposes the United States imagine itself as "a democracy of nationalities, cooperating voluntarily and autonomously in the enterprise of self-realization through the perfection of men according to their kind." The

existence of a "their kind" implicitly marks it from an "our kind." Bourne's pluralist conception of a "Trans-National America" likewise still insists that "I do not mean that the illiterate Slav is now the equal of the New Englander of pure descent" and that immigrants are somehow uniquely denigrated by changing their habits, in danger of becoming "cultural half-breeds." Neither of these thinkers champion homogeneity, but their versions of heterogeneity make national difference more or less permanent, and more or less hierarchical.

Homogeneity of self and society, as it is used by these narrators of the nation, is an ideal fixity of self and group that paves the way for the telos of civilization to be realized. The data-collecting narrators that this chapter proceeds to examine reject both the ideal and the reality of identity, individual and national, in order to open space for an alternate logic of the self and the social, which I describe as assemblage-driven. The epistemology of data supports and even drives their telling of these stories, because of its insistence on the exhaustive collection of data prior to proposing theories, or narrative frameworks. Through their commitment to first representing the "actual beliefs and practices" of the mobile selves that provoke nativist anxiety, the data collector-narrators in these texts re-articulate practice to self. Committed to accounting for all the data points, a more flexible portrait of self must arise.

The assemblage thinking of the self and the social enabled, developed, and represented through this data collection constitutes an intervention in identity-based conceptions of essential national identity and narratives of nation that depend on securing that identity. Through the term "assemblage thinking," I mean to suggest a social imaginary that recognizes and builds from contingent configurations of selves in multiple geographical and cognitive contexts. In place of narrative trajectories of assimilation or social decay due to

lack of assimilation, data-driven ways of conceptualizing the self and the social compose narratives that hold multiple potentials in parallel. These parallel representational forms of self and nation offer a way of conceptualizing nationhood without discarding difference, potentially re-focusing attention on conflict due to material inequality rather than innate and permanent cultural difference.

Data is not the only source or driver of assemblage thinking in this period, and I do not intend to argue that it is exclusively responsible for aesthetic experimentation in narrative representations of immigration. In Melting Pot Modernism, for example, Sarah Wilson lays out how the many and often contradictory theorizations and figurations of the melting pot as a metaphor made a similar formal intervention. She reads "the melting pot as a modern episteme" that "in its moment provided a signal location for theorizing novelty, change, and difference" (3). While the concept of "the melting pot" is today largely remembered for its coercive properties, Wilson's reading recovers its ambivalence toward assimilation. Instances of what Wilson terms "melting pot thinking" were more often sites of debate over the meaning assimilation than straightforward endorsements of homogeneity. Melting pot thinking turned from seeing the self as an essential, fixed unit toward textual and performative understandings of the self that emphasized contact, consciousness, and coexistence as destabilizing dynamics for immigrant, African American, and native-born white selves. For Wilson, these epistemologies of self had a crucial role in social imagination: "Rather than focusing on the interactions of established cultural groups, in the sense of Horace Kallen's cultural pluralism, melting-pot thinkers imagined a pluralism achieved through multiple and shifting identities within the self' (35, emphasis in original). I argue that data, as a representational form and epistemological concept, facilitated such imaginations of

the self by foregrounding complexity, forestalling narrative closure, and provoking cognitive encounter.

Data belongs in the conceptual ferment surrounding the emergence of the melting pot as a metaphor for modern selfhood. It is not coincidental that Wilson draws many examples of melting pot thinking from the work of Chicago School sociologists. The melting pot is not only a handy image that becomes an influential rubric of interpretation—it is also an instance of how data as an epistemology generates modes of representation. Bourne, for example, uses the language of reality and revelation to frame his assessment of the melting pot as an ideal of assimilation in his 1916 "Trans-national America": "As the unpleasant truth has come upon us that assimilation in this country was proceeding on lines very different from those we had marked out for it, we found ourselves inclined to blame those who were thwarting our prophecies. The truth became culpable." Although he does not directly attribute the revelation of this "unpleasant truth" that assimilation is not following the neat narrative path to the findings of social scientists such as W.I. Thomas and Florian Znaniecki, his repeated reference to "the truth" suggests he has confronted some form of empirical evidence, and this could very well include the types of data about lives that this chapter looks at—sociological, journalistic, biographical, and autobiographical. Whatever representational form it took, this "truth" pushes him to a new conceptual configuration of immigration, the melting pot variant of "Trans-national America."

Data collection, collective life writing forms, and melting pot figuration all arise as representations of human life during this period due to the confluence of widespread migration, disrupting the naturalized narrative of national and/or ethnic descent, and the cognitive technology of data, being deployed by a wave of social scientists seeking to empiricize the study of social life and being incorporated in proliferating communicational

media. There is a perceived urgent need to understand individual lives in the context of society and an innovative method of doing so.

The Polish Peasant and the data of social becoming

Nativist or pluralist, identitarian narratives of immigration revolved around a basic definition of and trajectory for movement across national borders. The empiricist orientation of Chicago School sociology allows a different definition of immigration to emerge.³

Specifically, data-driven approaches to representing immigrant lives reframe immigration—the physical journey from one geo-political space to another, accompanied by a psychological journey from one social identity to a new one—as mobility—the physical and cognitive movement back and forth between geographical and social spaces which persists rather than resolving into either assimilated sameness or permanent difference.

Thomas and Znaniecki's *The Polish Peasant in Europe and America* exemplifies how an empiricist approach based on data collection leads to this reframing of immigration. Published in five volumes from 1918-1920, the text is the product of a decade of collaborative research undertaken in both the United States and Poland. The 86-page "Methodological Note" preceding the first volume presents the work as a bold foray into the empiricist project of prediction and control: "The marvelous results attained by a rational technique in the sphere of material reality invite us to apply some analogous procedure to social reality" (1). In order to achieve such results, social researchers must apply similar methods: exhaustive data collection aimed toward the discovery of generalizable laws. "Social becoming," they propose, like "natural becoming" must first "be analyzed into a plurality of facts" (36) in order to reveal "causal explanation," which will allow us to "eventually be able to control the social world" (1).

While this at first sounds like yet another overreaching and paternalistic scheme for surveilling and coercing immigrant subjects, two features of their empiricist project at the very least complicate, even if they cannot fully mitigate, this tendency. Firstly, Thomas and Znaniecki situate their method as an explicit intervention in prior sociological research characterized by a priori deduction from preconceived concepts and moral absolutes. They advocate the wide collection of data as a prelude to any type of categorization or conclusion, including any definition of what is normal or abnormal, because such predetermination perpetuates provincial thinking: "When the norm is not a result but a starting-point of investigation...every practical custom or habit, every moral, political, religious view, claims to be the norm" (9, emphasis in original). Like Du Bois, Thomas and Znaniecki propose an exhaustive data collection project "taking into account the whole life of a given society instead of arbitrarily selecting and isolating beforehand certain particular groups of facts" (18). This sets the sociological observer apart from "litterateurs, journalists, travelers, popular psychologists, etc.," who rush to "pick out the most prominent situations, the most evident problems" to characterize an entire social group. In a slight concession to practicality, the authors attempt to qualify the demand for exhaustive representation, admitting, "this attitude of indiscriminate receptivity toward any concrete data should mark only the first stage of investigation" because "the whole empirical concreteness cannot be introduced into science, cannot be described or explained" (19). Of course it cannot, but the fact that he feels it necessary to state this indicates that he senses the infinite process—and infinite delay—that the empirical ideal and the desire for data implies. "Indiscriminate receptivity" and "the whole empirical concreteness" beckon as impossible, albeit desirable, ideals.

To take one example of how Thomas and Znaniecki's methodological commitment to data collection works against conventional categorization, their project has the effect of de-essentializing rather than confirming ethnic identity. They do not focus on Polish peasantry as a site of unique cultural difference but as a specific sample of social reality under modern conditions of mobility that will provide a paradigm for the whole of it. Thomas writes in the preface, "The present study was not, in fact, undertaken exclusively or even primarily as an expression of interest in the Polish peasant..., but the Polish peasant was selected rather as a convenient object for the exemplification of a standpoint and a method" (vii-viii). This study is but an initial stage of a project that must include "isolating given societies and studying them, first, in the totality of their objective complexity, and then comparatively" (vii). The Polish peasant is, in effect, the equivalent of Du Bois's Philadelphia ward, a segment of reality to be studied exhaustively in order to make truly justified generalizations. And having been selected as such an exemplar, it takes on the qualities of Adams's manikin, interesting not for its specific content but for its ability to model broader processes.

Secondly, they see empirical sociology as a means to address not the movement of particular national populations to other national spaces but instead from modernity's general mobilization of individuals, arguing that it is "owing to the breakdown of the isolation of the group and its contact with a more complex and fluid world" that "the social evolution becomes more rapid and the crises more frequent and varied" (2). Group, here, refers to any social structure (community, profession, family) undergoing the shift "between unreflective social cohesion brought about by tradition, and reflective social co-operation brought about by rational selection of common ends and means" (vii). Primary groups, the formerly insulated communities governed by tradition and constructed primarily through face-to-face

contact, are now through the experience of contact undergoing dis- and re-organization becoming some new form of group, formed and maintained by self-consciously selected strategies. The process of social change that Thomas and Znaniecki seek to understand through data collection is driven by individual consciousness. Individual consciousness of multiple potentials drives new and newly self-conscious forms of sociality.

Thomas and Znaniecki theorize the "human document" as the vital source of data to track the development of consciousness. Through the collection of human documents they propose to secure "subjective data and preserv[e] them in 'objective' form" (Blumer 28). Defined as "an account of individual experience which reveals the individual's actions as a human agent and as a participant in social life" (Blumer 29), a human document is a text that exteriorizes the subjective data of attitudes and values. TPP draws on five kinds: letters, what the authors term "life histories" (which are autobiographical narratives that attempt to record as full a picture of an individual's life as possible), newspaper accounts, court records, and records of social agencies. Thomas and Znaniecki believe that they ideal study would focus on "life-records of concrete personalities" (1832). Such records, "as complete as possible, constitute the *perfect* type of sociological material, and that if social science has to use other materials at all it is only because of the practical difficulty of obtaining at the moment a sufficient number of such records to cover the totality of social problems." As grandly conceived as their present scope of data collection is, it is only a compromised approximation of what could be achieved if every individual life could be fully textually known. Notably absent among these data sources are surveys. The authors seek unsolicited texts that are the product of actual social interaction. Their preference for unsolicited documents makes them the theoretical kin of today's Fourth Paradigm, sensors-everywhere

miners of passively collected data. Experiments and questionnaires are second-best when compared to the real-time textual records of actual social actors.

The textual form of this data affects the kinds of conclusions, or lack of conclusions, that can be drawn from it. The granularity insisted upon by a method requiring close reading of human documents forces theory to become more flexible because it reveals the ambivalence and multi-directionality of self development. Reading the letters of Polish peasant Jan Baranowski, for example, the authors find that "in Jan contradictory elements coexist—a broad basis of familial attitudes, and some individualistic tendencies, acquired during his solitary struggle for existence, but not interacting with the first; at different moments different sets of attitudes prevail in his behavior" (396). The coexisting elements of "familial attitudes" and "individualistic tendencies" mark Jan as occupying both the cognitive space of primary group and that of the mobilized self, or traditional and modern social frames.

In the exhaustive view of social reality as "a plurality of specific data, causally interconnected in a process of becoming" (54), the permeability and mutability of all social systems becomes evident. Even seemingly secure social groups are not isolated enough to be static realities, for, as people move between them "the isolation disappears; the system enters, through the individuals who are its members, into relation with the whole complexity of social life" (11). The presence of dissident data, or in this case dissident individuals, forces a new evaluation of the entire narrative of the group's identity and function. The apparent harmony of groups such as the army, the factory, or the peasant village can only be maintained through the a priori exclusion of disharmonious elements into "permanent features of all the artificial, abstractly formed groups of facts such as 'prostitution,' 'crime,' 'education,' 'war,' etc." Thomas and Znaniecki's method would see the chaos of criminality

as just as artificially circumscribed as the order of the military, and insist that these "arbitrary generalizations" must be relinquished if social reality is to be really understood. Once the researcher has recognized and begun to represent the undifferentiated totality of social facts, "every single fact included under these generalizations is connected by innumerable ties with an indefinite number of other facts belonging to various groups, and these relations give to every fact a different character." New "relations" between single facts (or in assemblage terms, relations of exteriority) change the character of the fact itself while leaving it intact to be put into a different relationship. It is the data-driven view that makes the assemblage nature of facts perceptible. Their commitment to the epistemology of data, to starting with the collection of data and hoping to arrive, eventually, at the "real" causal laws that would make them comprehensible, has prompted awareness of coherence as an effect of selecting what to see. Through its epistemological insistence on the equal reality and equal presence of all points, data troubles the plausibility of any single containing narrative or boundary between groups.

The formal effects of the data aesthetic can be seen in both *TPP* as a text in itself and in the process of social becoming that it proposes. Thomas and Znaniecki's commitment to collection is immediately evident in the textual form of *TPP*, which is practically overwhelmed by the "peculiar specificity" (Coser 512) created by the inclusion of most of their raw data alongside the authors' comparatively brief interpretive paratexts and footnotes. The letters and a 300-plus page autobiography (or as they term it, "life record") are reproduced in their entirety, while copious reproductions of newspaper accounts, court records, and agency records are also provided. For most of the work's 2,250 pages, the reader is confronted by primary texts spliced side by side, one after the other, formally brought into encounter with data points rather than given digestible conclusions.

Although striving for generalizations, Thomas and Znaniecki become mired in data; as Coser notes, "They appear at times to be lost in a welter of detail" (517). The authors' tentative interpretive conclusions are largely relegated to footnotes, and while they generalize about Polish peasants, they refrain from, or never consider themselves to have reached, generalizations about migration and social change. As sociologist Harold Blumer observes in his influential critique of *TPP*, "It is of importance in this analysis of Thomas and Znaniecki's work to note that they have not given any 'laws of social becoming'...it must be pointed out that there is a marked paucity, even, of *proposed laws*, despite the fact that, as we shall see, they are working with an abundance of material" (18-19). A decade of research and thousands of documents later, the only conclusion warranted is that more data is necessary.

Instead of causal law, what emerges from their study is an understanding of social becoming as a perpetual process of encounter between individuals and a widening circle of awareness that puts their relationship with social values into productive crisis. The expanding scope of individual consciousness through increasing "contact with a more complex and fluid world" is a kind of Parkian mobilization. As Park defines it, "Mobility in an individual or in a population is measured, not merely by change of location, but rather by the number and variety of the stimulations to which the individual or the population responds. Mobility depends, not merely upon transportation, but upon communication. Education and the ability to read...have vastly increased the mobility of modern peoples" (589). This definition expands mobility from the solely physical to include cognitive contact and recontextualization, introducing the possibility that the same dynamics that create immigrant subjectivity can also be seen to affect native subjectivity. Mobility is not simply immigration but a more general feature of modernity and modern selfhood.

When socially situated within the isolation of a primary group, Thomas⁵ elaborates in Old World Traits Transplanted (1921), "the individual has felt himself a person to the degree that he was incorporated in an organization," while "in America we think of the 'feeling of personality' as associated with individually determined acts and policies" (Old World Traits 38). For Thomas, the salient feature of American selfhood is the imperative to construct one's "life organization" in full knowledge of multiple potentials. Thus, being American or modern is not an inherited trait but a cognitive immersion in a culture of information overload requiring self-conscious selection. Upon immigration or another form of sustained contact with the world outside this group, the subject becomes aware of multiple potential "acts and policies" for the organization of a life and "the individualism which is characteristic of Western cultural societies, and which is largely the result of increased communication, means the tendency to construct a scheme of life and relationships based on the intelligent use of all values that can be found anywhere in the world, disregarding to some extent allegiance to persons and localities" (41). For both individuals and the groups they compose, "increased communication" induces awareness of multiple social orderings and value systems, and in effect creates a self culturally disarticulated from any single location. In whatever specific forms it manifests in individuals' lives, distributed attention is the effect of the combination of physical and cognitive mobility and the contacts that result, which in turn, at least conceivably, propagate mobility further outward.

Their data-driven view of social reality generates assemblage logics of self and the social, which when articulated to representational practices work to challenge more traditionally narrative-driven understandings of cultural destiny. What the data bring into view is that "the stability of group institutions is thus simply a dynamic equilibrium of processes of disorganization and reorganization" (Thomas and Znaniecki 1130). The

hierarchical, progressive narrative of civilizational development that presents some groups as having attained coherence and others as defined by chaos is empirically inaccurate. Social disorganization, defined as "a decrease of the influence of existing social rules of behavior upon individual members of the group" (1128) is not "an exceptional phenomenon limited to certain periods or certain societies; some of it is found always and everywhere, since always and everywhere there are individual cases of breaking social rules" (1129). "Individual cases" alone have the power to disrupt narratives of stability and homogeneity, and with a scale of observation bound to consider all such individual cases, a view of stability will always be untenable. And just as social disorganization is always ongoing, social reorganization, defined as "a production of new schemes of behavior and new institutions better adapted to the changed demands of the group" (1130), is also at work, also because of individuals, whose rule breaking is not a sign of dissolution but creativity: "during the period of disorganization a part at least of the members of the group have not become individually disorganized, but, on the contrary, have been working toward a new and more efficient personal life-organization." Life re-assemblers are the social vanguard rather than the evidence of decay.

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cases" alone have the power to disrupt narratives of stability and homogeneity, and with a scale of observation bound to consider all such individual cases, a view of stability will always be untenable. And just as social disorganization is always ongoing, social reorganization, defined as "a production of new schemes of behavior and new institutions better adapted to the changed demands of the group" (1130), is also at work, also because of individuals, whose rule breaking is not a sign of dissolution but creativity: "during the period of disorganization a part at least of the members of the group have not become individually disorganized, but, on the contrary, have been working toward a new and more efficient personal life-organization." Life re-assemblers are the social vanguard rather than the evidence of decay. Social becoming as a composite of the ongoing processes of social disand re-organization takes a form of alternate narrative coherence. It begins over and over again in each present moment of interaction, and its endings (periods of relative social stability) are temporary and epistemologically viable only at a pulled back scale of representation.

What Thomas and Znaniecki's research suggests is, simply put, that for the nation of mobilized selves the "situation is really much more complicated than most of the popular American literature concerning immigration and Americanization sees it" (1468). This literature conceives of selves in a binary state, defined by "individual assimilation or non-assimilation," with "the only line of evolution left to [the immigrant] seem[ing] to be the one leading to a gradual substitution in his consciousness of American cultural values for Polish cultural values." Instead, Thomas and Znaniecki position these Polish immigrants as mobile selves, modern and quintessentially modernist, "a specific new product whose raw materials have been partly drawn from Polish traditions, partly from the new conditions in which the immigrants live and from American social values as the immigrant sees and interprets them"

(1469). Are these immigrants, then Polish or American? The authors find that not only is this not the case, it is hardly the question. The reality they see is that the "fundamental process which has been going on during this period is the formation of a new Polish-American society out of those fragments separated from Polish society and embedded in American society" (1469, emphasis in original). While the concept of the hyphenated ethnic identity has since gone through many iterations and in present-day discourse seems somewhat unremarkable, it subtly makes claims that revise contemporaneous notions of immigrant identity. First, its forthright claiming of a "new Polish-American society" can be seen to speak directly back to popular disparagement of "hyphenated Americans," epitomized by Theodore Roosevelt's 1915 speech to the New York chapter of the Knights of Columbus, in which he proclaimed "a hyphenated American is no American at all." Further, in suggesting that the result of this ongoing process is a genuinely "new product," it also suggests that American society is as re-made by the immigrant as vice versa, and that this is not necessarily an alarming or surprising reality. Their reading of the data does not apologize for immigration by recruiting Polish peasants into a gift economy whereby immigrants to the United States are necessary, in Randolph Bourne's words, "to save us from our own stagnation." Finally, it places its emphasis not on individual actions or attitudes but grounds the reality of the "new product" in lived sociality. TPP's formulation of hyphenated self and sociality rejects developmental narrative and the ideal of homogeneity upon which it is based; social becoming is ongoing rather than progressive, with forces of dis- and reorganization always, empirically, co-existing.

Lifelets as data points, nation as data collection

The Life Stories of Undistinguished Americans: As Told By Themselves, a 1906 monograph collection of autobiographical narratives originally published in New York-based magazine The Independent, turns short life stories into the data of a nation. As the text's "Introduction" explains, the editorial staff of The Independent undertakes the collection of lifelets "with the object of ultimately presenting in this way a complete picture of American life in all its strata" (4). The "lifelet" as a form demonstrates how the desire for exhaustive representation of social reality leads to collective form in cultural as well as academic settings. It also illustrates how this desire constructs the nation in a form that highlights its internal heterogeneity and proposes that the story of the nation is not a single unfolding providential narrative of a single social group but an ongoing assemblage of mobile subjects. No single lifelet will suffice as representative or adequate; it is through the collection of lifelets that knowledge will be assembled.

Imagining Anderson's farmer standing at the stove, browsing *The Independent*, is one way of conceptualizing how readers would have encountered these lifelets as parallel representational forms. As Jessica L. Knight describes, autobiographical profiles were one of "elements that magazines put into new proximity" (29) for readers "attempting to define their own identities in opposition to those of marginalized groups." For such readers, the lifelets were "positioned both as a curiosity and as an encounter with the real." As printed, the lifelets were embedded in a mélange of articles and advertisements. During this period, each issue of the *Independent* opened with a series of short pieces gathered under the heading "Survey of the World." These pieces typically included both international and domestic news and ran in side-by-side columns. This formal feature, similar to a newsfeed on a website today, generates a sense of globality characterized by parallel co-occurence. A U.S. military

action in the Philippines, this format suggests, happens in the same world at the same time as labor unrest in Chicago. The "Survey" was followed by features, short editorials, literary reviews, and business news. The lifelets ran as part of the features section. Thematically and linguistically, they become dissident presences within a section typically devoted to high cultural literacy written by professionals. The same space in the magazine might one week be occupied by a biographical essay on Queen Victoria and the next by the first-person account of an immigrant. The material-formal features of the magazine—the splicing effect of side-by-side columns, the parallelism of individual lives with the news of features of "Survey of the World"—gesture toward a kind of parallel consciousness driven by data about the world. If few of the magazine's original readers (or none) would have articulated their encounter with these texts in precisely these terms, we can still recognize and read these formal qualities (just as we might interpret a Stein text in ways that her contemporary readers might not have). I am not arguing, here, that the magazine's editors or readers consciously thought of these lifelets as a data collection, but that they are formally analogical in ways that are significant for the questions of self and nation they address.

The lifelets are collective in two formal dimensions: as an intermittent series of pieces published in *The Independent* and on the individual level, as each lifelet functions as a data collection in itself. Both of these dimensions demonstrate and contribute to a data-driven view of the nation.

The week by week, year by year accumulation of lifelets formally displaces straightforward narratives of nation. The multiple formal dimensions and material instances of the lifelets do not offer a single "mosaic picture" but instead offer the possibility of many pictures. They exist as roughly seventy-five magazine articles, originally appearing individually over time but now existing together in time (at the University of Michigan, in

both print and digital forms); as a selection of sixteen lifelets published as a book in 1906; as a selection of twenty lifelets reframed and republished in 1990; as individual narratives anthologized in literary and social history texts. No lifelet is definitively the beginning or end of the story. As brief, stand-alone pieces, each could be either an entry point or a conclusion to a reader's encounter. Their publication history suggests how the abundance of data forces acts of selection that can only be understood through the logic of assemblage, not synthetic narrative. The first person narratives, each presenting a kind of raw data of experience, pull the reader's attention from point to point in the same way as the colored dots on a census map. With each first-person narrative presented as the raw data of individual experience, readers are left to make connections between them, and forced to remake these connections as new lifelets are added to the national assemblage.

As well as being part of a collection, the lifelets are also individually structured by collection. Although some of these are composed in writing, by the individuals themselves, and others are the result of interviews, they all share, as Werner Sollors has observed, the feel of a questionnaire. Their lack of narrative coherence in the traditional sense may be due as much to the form of the prompt as the perception of the self. So far, no archival research has uncovered an actual questionnaire that *The Independent*'s journalist-collectors might have used. The survey may not have been codified, but as Sollors suggests, a "cluster of direct or implied questions that surrounded the debates about immigration and race" (53) structure the lifelets. In some ways, an implicit rather than actual survey completes the data-fication of the self—self is inseparable from survey, and it circulates socially as this equivalence, meeting *The Independent*'s mostly middle class readers in their homes on a weekly basis and prompting an encounter of the data of a heterogeneous nation.

Within the individual lifelets, the collection-oriented compositional mode of the questionnaire creates inconclusive narratives, gathering data without positing linkages of cause and effect, defaulting to chronology and relying on the uncertain end point of the present. Through the form of collection, the lifelets disrupt any clear beginning or end to the narratives of being or becoming American. Although all of the lifelets' subjects are residing in the United States at the time writing or telling their story, not all of them intend to stay. Some have become citizens, some have not, some do not intend to, and some of the native born subjects wish they were not. In place of American identity, these forms posit parallel selves, with even the native-born subjects revealed to navigate multiple contexts of affiliation and relationship to tropes of the narrative of American selfhood.

The lifelets of the native born evidence precarity, disability, and ambivalence about the social roles to which their subjects seem to be defined. The lifelet that seems to have the most conventionally American storyline also demonstrates actual life and perception of self as being much more plural than the outlines of a stereotypical narrative of American womanhood would project. The "Farmer's Wife" both is and is not a farmer's wife, for she is divided from her daily life by a sense of literary vocation that would demand a much different daily routine. The bulk of the narrative is occupied by a list-like recitation of her daily tasks. While she physically performs the tasks of a farmer's wife, she inwardly constructs a self divided from this role. She writes, "my heart is not in my homely duties; they are done in a mechanical abstracted way" (99). Instead, she imagines a narrative of becoming a writer. But she is unable to reconcile these two identities, concluding that instead of occupying multiple roles she occupies none: "One cannot be anything in particular as long as they try to be everything" (102). She cannot embrace her own multiplicity, only lament the lack of singularity. The narrative selfhood of a farmer's wife is a list of duties

while her writing self offers a potential narrative, but each is frustrated by the unbanishable presence of conflicting points. Her story and its construction of selfhood embody the tension between collection, under the rubric of transcribing a life, and selection, as the impulse to claim a single, ordering identity. Her self-representation as physically and cognitively divided introduces a kind of invisible mobility to the American subject, implicitly challenging the stability of the male-headed household and the system of agricultural production it supports as well as complicating the relationship of the rural to the urban as she reads, writes for, and imagines herself into cosmopolitan contexts via print media.

Each lifelet offers examples of and potential insight into the data aesthetic of life narrative, but for the purposes of this chapter I will now focus on two in order to provide more in-depth analysis of how the data-driven form of the lifelets make the physical and cognitive mobilities that constitute the mobile self perceptible, which highlight the provisionality and trans-national, trans-cultural entanglements of the parallel self. "The Life Story of an Italian Bootblack" demonstrates how the collection-oriented compositional mode defamiliarizes the American immigrant narrative through complicating its typical temporality, emphasis on agentive self-determination, and idealized path to citizenship. "The Life Story of a Syrian" provides perhaps the clearest example of how cognitive mobility provoked by textual encounter contributes to eventual migration and production of a parallel sense of selfhood.

In "Bootblack," the subject of the immigration narrative is not an agentive self-maker but a product of circumstance. The material contingencies that structure selfhood are foregrounded by the prefatory editorial note, which names the subject as "Rocco Corresca," who "claims that he has always been called Rocco but that the name Corresca was given him when he went aboard the ship that brought him to America. It was thus entered on the

steerage list and he has since kept it" (29). His name, then, is an assemblage through which his physical presences are traced. As in most of the lifelets of immigrants, the journey to the U.S. is not initiated by a strong driving wish to immigrate but by a combination of opportunity and economic need. Nor is it considered a one-way trip, a fixed trajectory of transformation. Corresca states, "Now and then I heard things about America" (33), including that "Italians went there and made plenty of money, so that they could return to Italy and live in pleasure ever after." The opportunity to travel to the United States arises abruptly and without fanfare. Corresca relates, "One day I met a young man who pulled out a handful of gold and told me that he had made that in America in a few days." When Corresca then expresses a desire to go, the young man facilitates his passage. This description suggests little ideological affinity with American democracy and anything but a secure trajectory, even implying that Corresca intends to return to Italy.

Corresca's detailed accounting of his life once he reaches the United States demonstrates that, contrary to the official narrative of naturalization, one can in practice become an American in multiple ways that do not imply any essential change in subjectivity. He reports that he lives primarily in communal spaces dominated by Italians, but he notes that a change in economic circumstances often triggers a physical and social relocation: "There are plenty of rich Italians here...The richest ones go away from the other Italians and live with the Americans" (37)—illustrating not only the fluidity of identity and social affiliation, but David Roediger's thesis that property is the main "whitening" force for European immigrants. Corresca also defamiliarizes the process of becoming an American with his uneven adoption of language and comparative framing of U.S. democracy. He describes U.S. political structure in comparative terms: "These people are without a king such as ours in Italy" (37). Instead "every year the people vote." Corresca has not yet voted,

and is in this way not yet a part of "these people." He must instead consult "some of our people" who tell him "we should have to put a paper in a box telling who we wanted to govern us." Putting a paper in a box, rather than casting a ballot, not only conveys a lack of facility with U.S. English but also suggests the translation of a U.S. practice into its most concrete terms, which highlights its romanticization and idealization in American discourse. The fact that voting comes up at all for Corresca, who has been in the United States two years at this point and predicts naturalization in another three, is an oddity of urban corruption, where Corresca and other recent immigrants "can be made Americans for 50 cents and then...get \$2 for our votes." There is more than one way to become American: formally through the bureaucratic maneuvering of political operatives, formally through legitimate legal channels, and by accruing property.

"The Life Story of a Syrian" explicitly attributes both cognitive and physical mobility to encounter with print media of referential communication through American cultural channels that ultimately results in both physical mobility and new self-perception. After transferring from his local religious school to an American missionary school, the life narrator describes the difference between the school in terms of access to print media: "At the first school there were few books and I got the impression that there were only about 500 different books in the world, the most important being the Syrian Bible" (151). At the American school he "found that the world was larger than I had thought and that there were other great countries beside Syria." Specifically, he notes, "There was an encyclopedia at the American school which I learned how to use after a time and this broadened my ideas.... I read the articles on Syria and the United States...." As a result of his attendance at the school, "Gradually the idea of becoming a Maronite monk...lost its charm for me and I began to think that there might be some other sort of life happier and more useful." Forms

of referential communication prompt an awareness of multiple national contexts that reshapes his relationship to Syria and its religious culture without him ever having left his home town. Another encounter with print media proves even more dislocating. On the advice of a friend, the narrator goes to a tree under which a copper cylinder has been hidden, which turns out to contain "newspapers which were printed in Arabic. They were from New York, written by Syrians residing there, and they bitterly attacked the Government" (153). Once again, print media internationally circulated changes the subject's relationship to the nation. When it becomes necessary for his family to leave the country due to a legal dispute resulting in political persecution, he describes the place they are going as "New York, the place where the Arabic newspapers that attacked our Government were printed" (154), conflating geographical and ideological location and suggesting how both sets of coordinates become cognitively intertwined.

Eventually, the narrator also becomes a producer and circulator of dissident media, joining the circuit of communicational influence as he now ships back to Syria the kind of texts that once sparked his cognitive shift to a parallelist, multinational imagination. These texts, however, do not simply affect readers in Syria. As the narrator notes, they also transform New York's cultural geography: "The little Syrian city which we have established within the big city of New York has its distinctive life and its distinctive institutions. It has news newspapers printed in Arabic...and many stores, whose signs, wares, and owners are all Syrian" (157). Imagining this narrator's daily routines, it is easy to see him as Park's mobilized man, with his attention distributed across languages, spaces, and national affinities. His success in creating an economic and cultural niche has also shifted the narrative he and his family originally projected for their lives: "When we first came we expected to return to Syria, but...we have stayed until we put out roots" (157). Yet, these "roots" are not simply

adoptions of U.S. cultures; they transform that culture as they also co-exist with continued engagement with Syrian life. While "two-thirds of our men now are American citizens, and the others are fast progressing along the same lines," the narrator finds, "still we feel friendship for the old country and a desire to secure her welfare." All of these pieces of information about his life and brief reflections not only thematically demonstrate the influence of conceptualizing life and self as data, they also gain much of their effect from their formal arrangement. One can imagine this story being told another way: provincial boy attends American school, learns of opportunity and freedom, and with his family flees political persecution to attain business success in New York as a U.S. citizen. But as this narrative is constructed to convey data collected through a kind of social questionnaire (implicit or actual), the narrative line never seems quite so clear. The data aesthetic of inclusion makes all these data points of the narrator's past and future life to pile up, surfacing the complexity of his self-location and the contingent string of events that created it.

The lifelet closes with several paragraphs that focus on the genocide of Armenian Christians in which, despite the demonstrated power of newspaper circulation in his own life, the narrator makes a pointed critique of data as a tool of political mobilization and witness. A reported number fails to make cognitive impact: "When we say that 300,000 Christian people have recently been butchered by the Turks in Armenia, it does not convey any clear idea to the American mind because people here are so used to peace and order and their imaginations simply refuse to think out the details" (157-158). American readers, in his view, are unable or unwilling to translate the abstraction of quantitative data into an imagination of concrete realities. The number refers to actual lives, but it allows those lives to remain abstracted. The narrator begins to painstakingly "think out the details" for his

readers, substituting an image and a narrative for the number: "Let us take then a village of 300 Armenians.... In the morning all the people get up and go about their work.... Soon after the site of that village is covered with ashes and corpses." Americans, or any reader, would need to "repeat that picture a thousand times" in order to "have some conception of what the Armenian massacres really are" (158). Data, in this context, can obscure what "really" is through numerical abstraction. The narrator, in effect, is taking on a kind of data pedagogy, asking readers to develop a new kind of literacy to help them register what the number 300,000 means in the context of ongoing genocide. His project here is a microcosm of the project of lifelet collection as a whole, which seeks to bring the reader in contact with an American diversity that cannot be understood simply through numbers.

As the Syrian narrator's critique of data's power as a representational form to create social change suggests, it would be unwise to claim that the formal parallelism of these lifelets had a significant impact on immigration debates or the ideal of cultural homogeneity. It remains, however, an important textual archive of how the desire for data generates representational forms that begin to trouble assumed narratives and suggest new logics of American selfhood—specifically, that heterogeneity is reality on an individual as well as a collective level, and that acknowledging the co-presence of conflicting elements within and beyond the self calls for modes of narration that incorporate contingency and provisionality. Set side by side, lifelets of the native-born, African American, Native American, and foreign nonimmigrant, claim equal presence within the U.S nation even as they evince shared uncertainty as to their own place within it. Their formal proximity and commensurality forces the reader to consider new relationships among them and to visualize a nation composed of discrete selves. It is by insisting on the actual undistinguished-ness of these and other Americans that these collection-driven modes of life narrative use the data aesthetic to

re-form the national self and theorize assemblage in place of identity as the rubric of American-ness.

Constantine Panunzio's American consciousness

The mobile selves of Italian American Constantine Panunzio (1884-1964), itinerant laborer, Methodist minister, and academic sociologist, are recorded in *The Soul of an Immigrant* (1921), somewhat like a lifelet writ large. In so doing, it offers a form of data collection as evidence against immigration as a teleology, whether that teleology is assessed positively or negatively. In the "Forward" to *Soul*, Panunzio describes the autobiography in terms that suggest he offers his life narrative as a kind of data collection. As well, he places himself at the center of a new scene of reading immigrant life and seeks to propagate a new awareness of its realities and perhaps prompt U.S. American readers to imagine a new relationship to immigrants.

The methodological and formal terms with which Constantine Panunzio frames his autobiography align it with the kind of exhaustive life data set imagined by Thomas and Znaniecki in their definition of the life record. From the outset, Panunzio emphasizes the accumulative rather than culminating nature of his American experience. In *Soul's* dedication, he calls his "American life" an "ever-unfolding reality," placing emphasis on its ongoing nature and presumably changing content. He continues to emphasize the accrual of incidents over a line of development as he describes his "simple" story as one of having "through a series of strange incidents [come] to the United States and through another series of strange circumstances [come] definitely and consciously to adopt America as his country" (xi). The phrase "series of strange incidents" recurs multiple times during the text, triply emphasizing the disjunctive quality of his experiences and their difference from progressive narrative. It is

by a "series of strange circumstances" that he is "tossed upon the shores of America" (326) and also a "series of unforeseen circumstances" that "lead me back to my native Italy."

The form of his life story is central to its epistemological value: "If this narrative has any particular value it grows from the fact that it recounts the struggle of an average immigrant. It is not the life story of a Jacob Riis, an Andrew Carnegie or an Edward Bok" (xii). Panunzio contends that the life stories of these exceptional successes are "beautiful" but "not true to fact" (xii). The epistemological and political value of his narrative derives from his undistinguished status as an "average immigrant," one of "the many" in the process of "becoming useful American citizens" (xi). He thus positions himself as a data point, representative but also concretely differentiated from others, and critiques the aesthetics of a "beautiful" narrative as disrupting realistic representation.

He goes on to indicate that this desire to construct the self as data point has had formal consequences for the composition of his text. He apologizes that he has told his story "too frankly," "too fully"—in other words, he has practiced more collection than selection, and even states that he has "left pretty much in the form in which my original notes were, notes made at the time of the events narrated" (xiii). He refrains from revision in order to provide a "truer picture of the struggle in point" (xiii) and "not mar the original impression by throwing upon it the light of later knowledge or development." Any lack of coherence in the chapters that follow is to be read as an increased epistemological value for the U.S. American reader seeking to understand immigrant lives. How close the text that follows is to his actual notes is impossible to say, but this manner of describing his method and form positions the notes as a more objective record of experience in time. Above all, he emphasizes inclusion over selection. At the risk of personal embarrassment, he commits to exhaustive self-representation, going "deeply into the very recesses of my consciousness" to

recount "unpleasant and humiliating experiences" he would rather leave out (xii). As if answering to the desires of Slosson's imagined reader, Panunzio, too, seeks "more nearly a transcription" of the diverse experiences of immigrant life. Panunzio's formulation of a more transcriptive mode of self-representation is also part of his political argument. Like Du Bois, he seeks to disrupt a too-fixed public narrative of immigrant success and remedy the over-representation of exceptionality. He wants to frame the hardships he relates as real and representative in order to expose the cultural myth of bootstrapping.

The book's opening description of form and method also serves to introduce consciousness as the key element of his version of Americanization, as he comes "definitely and consciously" to adopt America and American-ness. He relocates the type of events of which the story is constructed from outward success and failure to "the inner, the soul struggles." But, as the text portrays it, this "inner" is not a personal refuge or core of identity but eminently malleable and influenced by context. The *Soul* and the soul of an immigrant are not transcendent, independent entities but embedded and re-embedded in shifting national and discursive contexts. His insistence on and repetition of this term throughout the text is a subtle contestation of sociologist Franklin Giddings's term "consciousness of kind," a widely cited explanation for the reality of race, the seemingly innate ability and propensity to enjoy being around those who resemble you, physically and culturally. Through Panunzio's kind of consciousness, the boundaries of self shift rather than confirm an innate identity.

Immigration as the physical migration across national borders is only one version of the experience of having one's consciousness re-contextualized. Consciousness can be reshaped through personal interaction and discursive encounter as well. Panunzio describes himself as a child listening to his grandmother telling stories about his deceased grandfather.

These stories form his "infant consciousness" (12) to the extent that it "seemed that I was not I." Narratives produce (and re-produce) selves. His grandmother tells him these stories to try to influence his development, hoping that he will follow in his grandfather's footsteps and... This moment of narrative envelopment and re-assemblage is a miniature of what Panunzio wants the reader to do, which is to reject the fixed and idealized narrative of immigrant success in order to see the variations and contingencies of Americanization.

Panunzio is not inherently different from his fellow townsfolk but becomes so through forms of physical and cognitive mobility that raise his awareness of the outside world. For example, he traces his awareness of the United States to having "come in contact with persons who had traveled widely," both relative and stranger, and to have had an Italian education that introduced him to the histories of Christopher Columbus and Amerigo Vespucci. Each of these orally related stories becomes a kind of data point as Panunzio collects them. This data becomes the form of consciousness, provoking awareness of parallel realities and providing a representational form for those realities that does not imply a developmental progression through or temporal displacement of any given point.

Panunzio recounts a long series of pre-departure contacts with America, which assemble into a preliminary parallel consciousness of co-existing Italian and American selves. These contacts are presented in a series of paragraphs which often start with the simple additive connector, "another." The sheer number of these contacts suggests an attempted fidelity to historical encounter rather than narrative formation as his method of composition. There is no single, pivotal encounter that determines his course, and they often provoke contradictory impressions of the United States rather than building into a unified mythology. From these impressions he "piece[s] together these various fragments and create[s] a picture of America" (64), re-purposing chance encounter after the mode of modernist montage and

Steinian composition in which each point is "as important as any other point." After this series of recounted contacts, he qualifies their representative quality and emphasizes their contingent assemblage as his own consciousness, not to be taken as universal: "Far be it from me to say that this is the mental picture which all Italians have as they turn their faces toward America. Far be it from the reader to take it as seriously as a certain popular writer recently did when he suggested that, because Italians have such a picture as this of America, they should be barred from entering this country. I only give it as my picture of America" (65).

His definition of "American" throughout these descriptions is already driven by the assemblage rather than essence. As a school boy, he goes to meet what he "thought were American sailors on board an American steamer" (61-62). In hindsight, he recalls, "For all I know they may have been Chinese coolies, but as long as they were on board an American steamer; to me they were Americans" (62). American, here, means a laborer (of any national origin) onboard a steamer of U.S. origins. The assemblage of labor and capital as driving American status makes a perhaps unwittingly sly commentary on the fluid construction of national identity through global capitalism: America stamps its laborers but these subjects in turn re-fashion American-ness. The sailors function as Americans in the same way as Italian sojourners or "actual" Americans.

Panunzio's encounter with one Italian sojourner emphasizes the mutability of self as one moves through cultural and linguistic spaces, and his story provides a model of the counter-assimilation narrative Panunzio arrives at through his autobiography. This sojourner changes his name in the United States (as Panunzio also will) and is unreachable and presumed dead by his family. When he does return for a visit, his regional and national identity have been further effaced, for "he could not speak our dialect any more" and "what

little of the language he spoke was the pure Italian, which he had learned in America." It is not just American identity that is reciprocally constituted by foreigners; Italian-ness is also permeable and subject to transformation. Travel and residence have the ability to re-form a person's national identity over time, and not even one's native tongue is fixed.

Panunzio's data aesthetic, emphasizing inclusion of details, exposes provisionality and impermanence as constitutive of American consciousness. Chapter 4, "In the American Storm" demonstrates this effect. The title of the chapter itself suggests a swirl of events in which the subject is tossed around, rather than agentially traveling to another country. Throughout, Panunzio includes incidents that seem to reach conclusions only to have them unsettled by the next incident, cancelling each other out rather than building toward a particular result. Panunzio's early friendship with French immigrant Louis demonstrates the assemblage-driven kinship that inclusive form of data narrative foregrounds. There is no veneer of destiny or inherent affinity in their meeting and befriending as Panunzio describes it: "On the fifth day, by mere chance, I ran across a French sailor on the recreation pier. We immediately became friends" (75). The grounds of their "mutual understanding" are not personal traits but the mobility and malleability they share: "Both had been sailors and had traveled over very much the same world; this made a bond between us" (75). This bond blurs the line of nationality. As he and Louis seek lodging and work together, Louis "for the time being passed for an Italian" (78). During a series of short-term manual labor positions, they end up in a form of peonage in a Maine lumber camp. They must build a raft together in order to escape the camp, and they are joined by a Russian laborer. In a reprise of Huckleberry Finn, the raft becomes a mobile space in which the formal bonds of land are temporarily dissolved: "With a Russian, a Frenchman and an Italian, each not understanding the other, we and our tongues were repeatedly and completely confounded and we had a

twentieth century 'Tower of Babel' on a raft on an American lake' (88-89). This image actually subtly re-writes the story of the Tower of Babel, in which the speakers of original, unitary language are geographically dispersed in order to confound their language and their power. The raft actually (if momentarily) performs the opposite maneuver, bringing the speakers of multiple languages into proximity in order to form a tentative new social group that will work together to attain the goal of securing freedom. The three do go their separate ways once they have escaped peonage and debarked. Louis and Panunzio are also split apart once they reach a new social context, a logging camp "made up entirely of French Canadians" in which "from the very first [Louis] was gradually beginning to put aside the Italian cloak which he had worn for several weeks and was becoming a Frenchman again" (97). This image of interpersonal relationship leading to international affiliation as an aspect of selfhood that can be put on and taken off again is a stark contrast to Mary Antin's use of the same imagery. Antin asserts "long past vividly remembered is like a heavy garment that clings to your limbs when you would run" (Promised Land 3) and that she vows that she will tell her story "in order to be rid of it." Louis's becoming French again suggests that the change was never essential, and that the immigrant can hold multiple narratives of self side by side. After reaching the camp, Panunzio finds himself "the only 'foreigner' in the group" (97-98). Panunzio and Louis swap roles as influencer and influenced as their geographical and social contexts change, neither occupying a fixed nationality or identity, with the narrative of their relationships to each other and their own identities moving back and forth rather than forward in any sense. Panunzio's transcriptive approach highlights the contingency of social assemblage and malleability of self.

Assimilation is shown, through this collection of notes, to be far from a personal goal or a narrative teleology for Panunzio. His American consciousness develops as he

works to save enough money to return to Italy. In the unfolding present, he sees each of his jobs as "only a means to an end" to "last but a few days" (77). It takes fifteen years (and nineteen chapters) before he returns, though "I had planned each year to do so" (299). Just as it is a series of strange circumstances that first leads him to the United States, "a series of unforeseen circumstances, was to lead me back to my native Italy" (301)—including the advent of World War I. Panunzio's itinerant course across national borders plots immigration as a meandering rather than motivated storyline.

Panunzio consistently rejects narrativized models of Americanization. The development of an American consciousness cannot be prodded by "coercion or by asking aliens to attend a two-hundred hour course on Americanization" (184). In addition to the contrast he makes between his life composed of notes and the "beautiful stories" of Bok and Riis, he explicitly critiques the idea of a single or ideal trajectory of American selfhood. He states that "whenever I have recounted these experiences" (183) it has raised objections from some of his "American friends": "They say that had it not been for a series of mere accidents—as they call them—which led me to school and college, I might still be buried in the slums of some great city along with thousands upon thousands of non-English speaking people, and still be ignorant of the real heart of America." The "series of mere accidents" is, of course, the form that Panunzio has claimed for his narrative, through his commentary on the contingencies of his experience and his repetition of the phrase "series of strange incidents." These American friends provide another voice for his own concerns, for while it seems like he might be building up to refute their observations with a claim about individual hard work and opportunity, he closes the passage by affirming them: "Are my friends right? I fear they are." By highlighting the contingent junctures of his own narrative, though, he

proves their very point. His success may be exceptional, but this mode of representing it makes its accidental nature what is representative.

Soul's concluding chapter, "My Final Choice," seems to suggest a settled, though hardly teleological, conclusion, but its rhetoric of full and final assimilation to U.S. American selfhood is undercut by its inclusion of demonstrations of continually shifting affiliation and continued mobility. The prior chapter ends with his declaration while visiting family in Italy that "I was no more of this fair clime—no more!" (312). The repetition calls into question the finality of any choice. Still, in typically abrupt fashion and in the passive voice of a data recorder, Panunzio claims: "One day the final choice took place." As he listens to the Italian national anthem, and then the America, he sees "two national standards, each exemplifying so much...waving triumphantly" (324). Both flags wave through both songs, and he feels "I loved not one the less, but the other more!" (325). Although he definitively chooses to physically return to the United States, once there "a feeling of loneliness again came over me.... I felt as of old that I was alone" (327). His choice, his conscious turn toward his adopted country, is nearly undone. Instead of feeling like a man with one or two countries, he almost feels "like a man without a country" but for the "voice over the telephone" of an American friend who dispels "some of that feeling." Panunzio has chosen, but his narration of the choice confirms that his version of American identity is not a permanent state but a contingent assemblage of symbols and social contact.

Toward a pedagogy of parallel selfhood

While Park's assessment that contact with the newspaper's data of national difference destroys the preferable "permanency and intimacy" of neighborhoods is debatable, as we see in our own data context, sheer awareness can and does work to change

the self's relationship to location and proximity, or as N. Katherine Hayles describes it, drives a "new kind of phenomenality of position and juxtaposition" (*How We Think* 96). Contact with the disjunct aggregations of newspapers and newsfeeds results in becoming aware of multiplicity—of nation, of language, of potential life path, of possible models for social order. Awareness of multiplicity occasions a choice of attention and eventually of action, and the process of choosing requires reflection, or what we might now call metacognition: the conscious formation of a means of selecting among potentials. And of course, as movement between physical and cognitive spaces becomes easier, the choice becomes less binding, so that a subject has to choose which self to be only for the duration of their stay in a given space and is able to maintain several selves, or lives as Park would say, concurrently.

Although Thomas and Znaniecki do not uncover the causal laws of social becoming that they seek, they do offer concluding suggestions for how we might think about the self in new contexts of mobility. Initially, the mobilized self is incoherent:

The modern individual usually belongs to different groups, each of which undertakes to organize a certain kind of his attitudes.... An individual of this type is a completely different man in his shop, in his family, with his boon companions, preserving his balance by distributing his interests between different social groups, until it is impossible to understand how such a multiplicity of disconnected, often radically conflicting characters, can coexist in what seems to be one personality. (*TPP* 1888)

However, the individual's ability to navigate multiple contexts perhaps offers valuable lessons for modern selfhood, not just that of the emigrant Polish peasant: "The center of pedagogical and ethical attention must, therefore, be entirely shifted; not attainment of stability, but...to search consistently for methods of education by which the individual can be trained in his youth to organize his later evolution spontaneously and without social help" (1891). *TPP*'s pedagogy of selfhood expresses the stakes of understanding the parallel self as alternately coherent rather than incoherent and threatening to social coherence. Mobility, as

it reaches from physical reality to psychological effects, can be a boon or a hindrance for individuals, depending on whether it is perceived as the lack of stability or the potential for adjustment.

Data-driven form and assemblage thinking intervene on several registers of narrative import in texts representing immigrant lives as mobilized selves. At the broadest level, it intervenes at the definitional level of culture as a social identity, replacing the Arnoldian definition (value-laden, culminating in Western "civilization") with the Boasian definition (particulate wholes co-existing in time). In the context of national debate over immigration, data-driven narrative intervenes in certain logics of nativist and assimilationist discourse. In the context of literary studies, it offers a conceptual accounting for the atypicality of so many seemingly "conventional" immigrant narratives ⁶ that aligns the work of these writers with the most intellectually engaged social scientists and experimental writers of the era. And at the individual level, it intervenes on identitarian concepts of selfhood through autobiographical forms that include rather than exclude the multiple contexts and coherencies of selfhood.

Notes

¹ I use this term to refer to lives mobilized, in the Parkian sense, within or between national spaces in order to emphasize shared dynamics of dis- and re-placement that precipitate becoming a political object of data collection and a subject called to account for multiple social identities. In the case of those that are, historically, also immigrants in the traditional sense, I use the traditional term "immigrant." While immigrants such as Panunzio and many of the undistinguished Americans clearly face different historical and material contexts than would African American or white working class migrants, all share the distinction of being perceived as exceptionally mobile, or exceptionally unplaceable in the United States in some way.

² In making this reading of communication, I draw on a much more literal reading than has influentially been proposed by Priscilla Wald in "Communicable Americanism." Wald links Parkian communication to contagion, as in "communicable disease," to suggest that his sociological models designate immigrants and minorities as vectors of moral decay, a model which has proven widely and perniciously influential in Wald's view. No doubt this is true, due as much to the ready audience for another thinly empirical justification for nativism and exploitation as to Park's work. I do, however, think this reading overlooks Park's

significant thinking about communication itself, and how interpersonal communication theorized to be at the center of pre-modern village life is, in the context of the modern U.S. city, supplemented or even supplanted by interaction with diverse print media. Park's later theorization of news as a specific kind of communication, in "News as a Form of Knowledge," supports the validity of such a reading. What Park is saying about communication has important connections with a sociological notion of cognitive mobility and assemblage selfhood in addition to the connections to public health discourse that Wald has adeptly laid out.

³ For institutional histories of and conceptual background on U.S. sociology, see Ross, Coser, and Matthews. The Chicago and Columbia schools of sociology referenced in this argument emerge from the midst of both immigration debates and a disciplinary reorientation in U.S. sociology, shifting from "a partly institutionalized alliance of three separate activities: formal speculation about the nature of society, Christian philanthropy and exhortation, and descriptive studies designed to display the magnitude of social problems to an educated and morally homogeneous citizenry" to "an academic discipline engaged in a permanent program of research, related on the one hand to the concrete description of society, and on the other to the development of a theory explaining social relations" (Matthews 1-2). The collection of data plays a central role in the distinction typically accepted to exist between the two schools, with Columbia being characterized by a theorydriven approach and more conservative politics and Chicago being known as more empiricist and liberal-progressive. By theorizing and practicing data collection as a crucial prerequisite to sociological analysis, Chicago school practitioners attempted to put more distance between themselves and the predetermined values of religion and middle class morality and aligned themselves with scientific practice.

⁴ Thomas and Znaniecki's use of the term "social becoming" is suggestive for twenty-first century readers for whom the concept of "becoming" has been elaborated by Gilles Deleuze and Felix Guattari. Although these theorists have the most divergent of goals in their use of the term—the latter seeking to prepare conceptually for emergent, unpredictable futures and the former to discover a fully knowable and controllable future—the overlap in vocabulary is telling. They have two different responses to pervasive rationality, but both recognize that the concrete objects rationality seeks to contain hold within and between themselves the affirmation of difference and potential for disruption all along.

⁵ Although *Old World Traits* was published under Robert Park's name, it is Thomas's work. At the time of original publication, Thomas was embroiled in scandal and the publisher refused to name him as author due to fear of lost sales and unfair critical reception.

⁶ Miller offers this working definition of the "conventional" immigrant narrative and challenge to critics to account for overlooked features of this form in his discussion of the immigrant novel: "As a subject of ongoing popular and scholarly interest, the 'immigrant novel' has been understood as a tale of arrival to a New World, which includes trials of belief in the self and the new nation, optimism and obstacles, economic and social acceptance, concluding with a disillusioned Americanism.... However, the archive of U.S. immigrant novels written between 1870 and 1940 makes evident that fewer novels than we might expect conform to these conventions, and assumptions of uniformity—as Horatio Alger stories, as novels of proletarian striving, as representations of masculinity, as diasporic resettlement, even as stories of arrival—efface much of what distinguishes them within the history of the U.S. novel."

CHAPTER FOUR

To Tell a Story Wholly: Gertrude Stein, Melanctha, and Self as Data Collection

"...for Melanctha all her life did not know how to tell a story wholly. She always, and yet not with intention, managed to leave out big pieces which make a story very different, for when it came to what had happened and what she had said and what it was that she had really done, Melanctha never could remember right."

Three Lives (1909)

115100 12003 (1505)

"Human beings are interested in two things. They are interested in the reality and interested in telling about it."

"A Transatlantic Interview" (1946)

Jeff Campbell, who, like most readers, finds himself having "trouble with Melanctha's meaning" (118) is certainly a human being in the Steinian sense. He is intensely interested in "the reality" of the eponymous protagonist and sometime romantic interest, desperate to know "which is a real Melanctha Herbert" (123) and how to name, categorize, and tell about her. After an initial getting-to-know-you period in which he warms to Melanctha's company during extended treatment of her mother, he provisionally concludes that "Melanctha really was a good woman" (118). Contrary to what the procedures of "science and experimenting" that he dearly loves suggest, though, the addition of more data calls his conclusions into question rather than further clarifying them. He finds himself thrust back into a state of epistemological uncertainty whenever he is with her, and whenever he hears second-hand reports of her activities. His relationship with Melanctha gradually chips away at his whole approach to knowing "the reality" of another's selfhood.

He tells her, "I certainly did think once, Melanctha, I knew something about all kinds of women. I certainly know now really, how I don't know anything sure at all about you, Melanctha, though I been with you so long, and so many times for whole hours with you" (124). Melanctha has not only unsettled his confidence that he can know who she is, she has unsettled the category of "women" as meaningful and predictive of who another will be. Further, she has done this despite his extensive contact with her. More data does not generate more clarity, and for Jeff, this is a crisis of epistemology.

Critics have forwarded a variety of explanations for and evaluations of Melanctha's unsettling effects. For some, she represents a feminine, embodied way of knowing that shows up the masculinist, determinist bent of Jeff's empiricism. For others, her opacity is part and parcel of her mixed race status, and her ultimate death confirms her a "tragic mulatta," a stereotypical representation too often accepted as modernist daring on Stein's part. What I will argue in this chapter is that the vaunted unknowability of the "complex, desiring" Melanctha is not a marker of who she is but a product of how she seeks to be able to represent herself, a project that challenges empiricist ways of knowing not through rejection of its representational methods but through more extensive embrace of exhaustive data collection. Critics have connected Stein's emerging narrative aesthetic and style to science and more recently to information,³ but I wish to deepen the connection to a particular dimension of early twentieth-century science, that of the investment in data collection as a route to exhaustive, and therefore definitive, representation. In their search for knowledge through the accumulation of data, Stein, Melanctha, and the narratorcollector who assembles Melanctha's life story offer different approaches to narrating the self as data. Through this reading, I argue that Stein is a principle theorist of self in the early

twentieth century, and her experiments in life writing form an important archive of investigation into what empiricism means for the representation of the human.

The foundations of this argument lie in Stein's formal scientific education and research work, another topic of frequent critical attention, especially in the most recent phase of Stein scholarship. Natalia Cecire, building on the work of Steven Meyer and Maria Farland, has recently argued for the centrality of scientific thought throughout Stein's writing career, including the early phase in which she wrote Three Lives (TL), The Making of Americans (MoA), and several other works often considered aberrantly realist or naturalist precursors⁴ to more genuinely experimental work that begins with Tender Buttons. "Read through the rubric of scientific objectivity," Cecire contends, "the body's abstraction into types here, prompted by a shift to a more objective version of science, is not a regression into the nineteenth century but the mark of modernity—the means by which naturalism helps to produce modernism" (71). I share Cecire's assessment that the formal elements of TL and MoA that mark them as realist and/or naturalist are not other than but vitally connected to the formal elements that define Stein's modernism, and that this connection becomes clear when we route them through the context of late nineteenth-/early twentieth-century science. A "more objective version of science," in Cecire's account, means the epistemological move from mechanical objectivity to structural objectivity. As defined by Daston and Galison, mechanical objectivity is "the insistent drive to repress the willful intervention of the artistauthor, and to put in its stead a set of procedures that would, as it were, move nature to the page through a strict protocol, if not automatically. This meant sometimes using an actual machine, sometimes a person's mechanized action, such as tracing" (121). Emphasizing transcription and eschewing interpretation, it is the kind of objectivity that data collection, in my account, aims to produce. Structural objectivity, conversely, sees the mechanical

objectivity of data collection as an impossible ideal and therefore epistemologically unsupportable. As Cecire explains, drawing on the definitional work of Martin Jay,

Structural objectivity is suspicious of the objectivity of empirical data, indeed, of the possibility that experience can be communicated—a concern familiar to readers of "Melanctha." Because the senses are fallible, protocols for collecting data inevitably impure, mental heuristics misleading, and communication imprecise, adherents of structural objectivity—primarily, as Jay has pointed out, at the turn of the twentieth century—turned to the formal structures of mathematics and logic as the only possible guarantors of scientific objectivity. (89)

While Cecire thus grounds her argument for Stein's turn toward objectivity as a turn away from empiricism, I want to argue that it is actually through a deepening, even extreme, engagement with empiricism that she undertakes her sustained inquiry into the nature of selfhood. This engagement is legible in the methodological paratexts that frame her formal innovation as uniquely driven by questions of how to represent lives and the data collecting forms that a number of her experiments in life writing share, including *TL*, her portraiture, and *Everybody's Autobiography*. Lived experience, for Stein, is a crucial site of "the reality." She insists that selfhood is a real phenomenon that exists apart from representation and that has not yet been adequately represented because it has not been represented in full. Through her concept of selfhood, she accesses a disruptively exhaustive concept of reality. Her repeated attempts at and formulations of life writing chart a shifting assessment of the relationship between exhaustivity and stable knowledge. As her life writing forms push toward a data aesthetic, the stability of self becomes more fictional and data, by extension, becomes a tool through which to claim the reality of non-alignment with gender or racial type.

"what was inside each one which made them that one": Self as object of empirical inquiry

Stein studied experimental psychology at Harvard-Radcliffe from 1893-1897 and medicine at Johns Hopkins Medical School from 1897-1901. During both of these courses of study, she was also involved in original research. As a student of psychology working with William James, she co-authored a published paper with a fellow student, and authored a second. In the year after leaving medical school, she prepared an article on brain anatomy (unpublished) drawn from her anatomical research in the laboratory of Franklin Mall. Taken together, this work suggests comprehensive empirical inquiry into human subjectivity as both a physiological and psychological phenomenon, a wrap-around approach that suspends the mind/body dualism that traditionally seemed to separate what of the human is available for empirical study and what is not, due to its spirituality or other transcendent quality. One approach is focused on the brain, one on the mind, but both entail the labor of collecting data. By conceiving of both mind and body as objects of data collection, she sets them side by side on a plane of empirical reality.

Stein's interest is not in the mind or the brain for their own sake but as avenues for pursuing a driving interest in selfhood. Her pursuit of this interest in the context of science reflects, as Anne Raine notes, "new scientific theories [that] located selfhood not in an immortal soul but in consciousness, a mysterious entity or process embedded in bodily sensations and biological processes" (804). In *Lectures in America*, Stein describes her psychological research in terms that indicate a fascination with the nature of self and an empiricist conception of how it might be studied, explaining, "I wanted to know what was inside each one which made them that one" (*LLA* 137). She imagines each self as a one-ness, a data point of the nature of selfhood that has the potential to reveal the underlying,

universal process of individuation. As such, each self oscillates between its formal equivalence to other data points ("each one"-ness) and its singularity ("that one"-ness). "Each" one is also a "that" one, and the process of being made so can, conceivably, be deciphered through scientific inquiry. Stein does not exempt herself from this status of explicability, as she goes on to relate that she was also "tremendously occupied with finding out what was inside myself to make me what I was." Her self, "what I was," is formulated as the product of "what was inside," bracketing essence for elemental assemblage in a way that opens the door for empirical description. Further defining herself as a combination of "mental and physical processes," she suggests that both the intangible and tangible elements of self are amenable to empirical study. The mental is not metaphysical for Stein, but rather a set of processes that can be observed and recorded.

This perspective is recognizable as an application of an emerging understanding of consciousness, forwarded by William James and others, as "an entity or process embedded in, but irreducible to, the body's somatic life" (Raine 808) and therefore available to empirical observation through the recording of some type of somatic data. The recording of this data exteriorizes the self and thereby puts the subject-self in forced relationship to an object-self. Stein recognizes the tension generated by the necessary discrepancy between the two, as expressed in an 1894 lab report:

[T]his vehement individual is requested to make herself a perfect blank while someone practices on her as an automaton.

Next she finds herself with a complicated apparatus strapped across her breast to register her breathing, her finger imprisoned in a steel machine and her arm thrust immovably into a big glass tube. She is surrounded by a group of earnest youths who carefully watch the silent record of the automatic pen on the slowly revolving drum.

Strange fancies begin to crowd upon her, she feels that the silent pen is writing on and on forever. Her record is there she cannot escape it and the group about her begins to assume the shape of mocking fiends gloating over her imprisoned misery. Suddenly she starts, they have suddenly loosed a

metronome directly behind her, to observe the effect, so now the morning's work is over. (Stein qtd. in Raine 808)

Both Raine and Cecire have highlighted the gendered dynamics of knowledge construction in this passage. The power to know the "vehement individual" who, in service of the experiment, has made herself "a perfect blank" is accorded to a group of (presumably male) observers, who will have interpretive authority over the writings that the "silent pen" produces. In this reading, gender maps the split between a belief in the validity of quantification of the self and the lived experience of this method's representational inadequacy. What I want to call attention to is how, in Stein's assessment, the sheer presence of an externalized, empirical/empiricized record of the self throws the subject into an anxious relationship with it. As the subject imagines "the silent pen is writing on forever and ever," she envisions it constituting a permanent, concrete, and incomplete yet irrefutable version of herself outside the self: "Her record is there she cannot escape it." While the recording apparatus described sounds constraining, perhaps even uncomfortable, it is never described as painful, and so her "imprisoned misery" is not attributable to physical experience alone but also to the added, cognitive pressure of confronting an externalized record of the self that will be seen as more authoritative than her own account of experience. Data collection, as Stein experiences it here, compromises the reality of self through its inability to capture both the exterior and the interior and compromises the authority of self to describe and narrate its own reality due to its materiality and inherent claim to objectivity.

Though neither approach to the self has been epistemologically satisfying, both have opened up a route past conventional understanding of self. Stein's formal studies in psychology and medicine are thus two parts of a project that would remain a central focus of her career: pinpointing the nature of selfhood and the marvel of herself through empiricist methods. These projects are pursued through a variety of forms of life writing: the

biographical experiments of *Three Lives* and *Making of Americans*; portraiture; and the autobiographies *The Autobiography of Alice B. Toklas (ABT)* and *Everybody's Autobiography*. Each of these forms, with the significant exception of *ABT*, employs a compositional mode driven by collection that, in Stein's estimation, works to investigate and re-formulate the relationship between narrative and the representation of lived experience.

This reformulation is necessitated and animated, I argue, by Stein's underlying and sustained conceptualization of "the reality" as, at its most real, an exhaustive collection of data points. Stein's description of science, as she encountered it under the instruction of William James, demonstrates that she saw it as fundamentally defined by the collection of observations and an imperative for exhaustive representation. She writes, "science is continuously busy with the complete description of something, with ultimately the complete description of anything with ultimately the complete description of everything" (*LIA* 156). The "things," here, build on each other until exhaustive representation is complete. The task is to keep chipping away at "anything" by describing each "something" until "everything" is completely described. Further, no "thing" is beyond the reach of description or science's desire to describe it—to exhaustively represent it through some form of symbolic abstraction in order to reach explanation.

As I read it, "description," here, functions as an equivalent to observation and inscription and thus as a form of data. This reading is further supported by her linking of "description" to "memory" in "Portraits and Repetition." In this essay, description, like memory, is an exteriorization of the historical self that triggers the incursion of the past on the lived experience of the present, specifically putting the self in primary relation to its past rather than its dynamic, unprecedented present. Stein recognizes exhaustivity and exteriority as fundamental epistemological dynamics and research aspirations of data-driven empiricism.

I do not cite this passage as proof of Stein's endorsement of data as the key to representing reality. On the contrary, it provides the seeds of a suspicion that propels her from life writing form to life writing form, in search of a way to represent "the reality" of self. Stein defines science as exhaustive description in this lecture, but she also describes herself as having abandoned the project. And, if "description" is something like "memory" in "Portraits," she has come to see it not just as boring but as pernicious to vital experience of self.

The writing of *MoA* and *TL*, however, predate these retrospective critiques of science's drive to "complete description" and evidence a critical engagement with data collection as a method and form rather than rejection. Stein formulates her own version of science's descriptive project in *MoA*. She frames it as a project of exhaustive representation, focused on human selfhood: "I began to be sure...I could finally describe really describe every kind of human being that ever was or is or would be living" (142). Once the entirety of description is accomplished, explanation will be manifest, for "after all description is explanation" (which I read temporally: after description comes explanation, rather than as suggesting they are equivalent procedures). What Stein means by this, as Sutherland and others have explicated, is not that she will describe every single person, but instead she will describe every type of person, arriving at a complete schema of "the bottom nature of them." The result of this project will be definitive revelation of human existence, Stein contends: "the enigma of the universe could in this way be solved." In her Steinian way that is yet typical of empiricist grandiosity, she recapitulates the Baconian task and the Laplacian goal.

At first pass, this would seem to put Stein in line with the generalizing tendencies of traditional empiricists and not with an iconoclastic commitment to data collection as I have argued for it. Types are a kind of determinist narrative. Having confidence in the ability for

humanity to be accounted for through a finite number of types is an affirmation of the empiricist project of achieving generalization and prediction. Most critical considerations of Stein's interest in type and typology begin with her retrospective assessment in "The Gradual Making of The Making of Americans": "I was supposed to be interested in their reactions but soon I found that I was not but instead that I was enormously interested in the types of their characters that is what I even then thought of as the bottom nature of them" (137). Interest in type, or "bottom nature," supersedes attention to data, "their reactions" collected during the course of experiments. Donald Sutherland argues that, in the context of evolutionary science, which emphasized species being rather than individual life, the three Lives also ought to be read as evidence of "human types" rather than single human beings: "The literary record of an ordinary life," in the context of evolutionary science, "is not a documentation of the single case for its own sake or for the sake of adding to our knowledge of single cases, but a demonstration of how the single case expresses the essentials of the whole species or subspecies" (267). Leon Katz's influential 1978 reading links Stein's compositional mode in MoA from 1906 onward to her initial reading of and enthusiasm for Otto Weininger's concept of type. Cecire has also recently affirmed Stein's genuine interest in arriving at an exhaustive typology of personalities, rather than an exhaustive record of actual personality, as fundamental to her turn toward philosophical objectivity.

Maria Farland, alternately, routes Stein's interest in typology through her anatomical laboratory research on the brain and theories of gender. She notes that Stein's medical training included a substantial amount of time at work in the anatomical laboratory of Franklin Mall, which introduced her to a practice of data collection considered novel in its emphasis on exhaustive collection of observations: "As a member of the School of Medicine's 1897 entering class, Stein joined the first generation of students to experience a

new experimental emphasis in medical education. Under Mall's leadership, the Johns Hopkins Medical School became the first American medical institution to teach anatomy in the dissecting room rather than the lecture hall" (120). The shift from lecture to hands-on work brings students into direct encounter with "the object itself" (Mall cited in Farland 120), with the particularities of individual samples. Mall placed the same importance on collection of data as a practitioner that he did as a pedagogue, and his data-driven method underpins his noted intervention in typological theories of gender that were popular in his day. Farland explains,

Drawing on the laboratory's research, Mall argued that scientific evidence did not sustain the concept of distinctive male and female brains: "The general claim that the brain of woman is foetal or of simian type is largely an opinion without any scientific foundation." He exhorted his colleagues to provide measurable proof of anatomical differences: "Until anatomists can point out specific differences which can be weighed or measured, . . . assertions regarding male and female types are of no scientific value."

Mall's fundamental insistence—collect the data—thwarts generalizing gender theory by expanding the scope of collection and insisting upon scrutiny of individual samples. While Stein may have been genuinely interested in a typology of personality, the gender typology that Mall confronted would have been impossible to reconcile with her own life and intellectual aspirations. Stein's commitment to collection of data, to the precise observation of actual anatomical samples, is further highlighted by the stated reasons that her article submitted to the *Journal of Anatomy* went unpublished. Farland explains, "Although editors Henry Knower and Lewellys Barker concurred on the value of Stein's physical diagrams, Knower recommended refusal of publication on the grounds that Stein's analysis of the material was insufficiently original. Stein's paper, though presenting 'much detailed illustration,' failed to 'go further and give a clearer or fuller account' of the existing data" (125). Stein submits as finished work drawings that show, in the editors' view, too much

commitment to the individual instance. Implicitly, she challenges the clarifying ends of empiricist data collection, but finds this challenge dismissed as the assertion of an amateur. In Farland's estimate, the coincidence of Stein's exposure to the work of empirical inquiry in the context of gender research generated a critical resistance to typology and a recognition of how data collection could be used to empirically disprove the reality of types, an endeavor made all the more necessary by how her own scientific work was received.

Rather than pitting these readings against each other, I would suggest we acknowledge that Stein both confronted and employed typological theories of self because, at different times and in different contexts, she both desired and rejected deterministic models of self. Just because others had forwarded the wrong deterministic model, in Stein's view, did not necessarily mean there was not a correct one, the discovery of which would confirm her genius. Understanding Stein's interest in typology as a moving target opens a way of understanding her assessment of the epistemological goals of empiricism. Many critics associate MoA with Stein's infatuation with typology, the attempt to sort individuals into classificatory groups, and therefore as a passing phase of interest in empiricism's overarching goal of subsuming all phenomena to predictive generalization. Meyer writes, "Certainly, Stein's understanding of science was initially mechanistic; thus in *The Making of* Americans, written between 1902 and 1911, she attempted to describe the precise mechanisms of human personality in great detail, with the ultimate aim of describing every possible kind of human being" (3). The aim is to reveal a finite number of kinds, not record innumerable distinct human beings. This is the same kind of investment that Adams makes in scientific history and Thomas and Znaniecki make in rigorously empirical sociology.

Earnest commitment to the project of discovering universal law, however, by no means forecloses unexpected results. Placing Stein's claimed aspiration to "describe really

describe every kind of human being that ever was or is or would be living" (*LIA* 142) in the context of the projects of life writing that emerged from the attempt reveals that her initial affirmation of typology is soon challenged by the scope of description required to realize it (even if it were possible). Stein's project of describing every type of person confronts her with exhaustivity of representation as an asymptotic horizon: "I found that as often as I thought and had every reason to be certain that I had included everything in my knowledge of any one something else would turn up that had to be included" (144). Still, her investment in exhaustive description is unshaken: "I did not with this get at all discouraged I only became more and more interested."

As the project of proceeds, the commitment to exhaustivity supersedes the goal of typology. Stein discovers that when it comes to representing lives, between every data point is a vast, perhaps infinite, expanse of additional data. She finds, "While I was listening and hearing and feeling the rhythm of each human being I gradually began to feel the difficulty of putting it down" (145). Types begin to seem a shortcut to representation, an insufficient substitute for "a whole human being" that eludes complete description because of the gap between time lived and time represented. The "whole human being" is "felt at one and the same time," but is then "very difficult to put into words." Becoming "very consciously obsessed by this very definite problem" (145), Stein finds she is "faced by the trouble that I had acquired all this knowledge gradually but when I had it I had it completely at one time" (147). The completion of an inscribed record of a self prompts a final act of interpretation, but Stein finds this act inevitably contaminates the reality she set out to record and that she experienced while recording. The gradual, conflictual accretion of "knowledge" that forms her "complete conception of an individual" does not neatly transform itself into a portable encapsulation. There is no substitute for experiencing the full exhaustivity of another self,

the "whole present of something." If the act of collection ends, if the collector moves from data to conclusion, the "whole present" is abandoned and reality once again goes unrepresented. Arbitrary abandonment is exactly how Stein characterizes her completion of *MoA*: "And I went on and one and then one day after I had written a thousand pages, this was in 1908 I just did not go on any more" (148-49). The goal of an exhaustive history of lives is unrealized and typology as a framework for representing the reality of human selfhood is proven unsatisfying.

While she does eventually finish, or declare an end to, writing MoA, she suggests that the underlying fascination with its method and its goal persists: "And I may say that I am still more and more interested I find as many things to be added now as ever and that does make it eternally interesting" (144-5). We might read this sentence as a throw away, but if we take it seriously it suggests that there is something different, for Stein, about the project of "describing really describing every individual that could exist" that is different from science's "complete description of everything." The self is a special case for Stein, and while her methods and styles change a core interest in how the self can be known, and how its representations influence that knowledge.

Thus, I read Stein's investment in type and typology as an earnest engagement with the methods and aims of empiricist epistemology that led to a subversive appropriation of scientific idiom to disrupt constraining narratives of self. I argue that a data-driven sense epistemology of reality and the form of the data point allowed her to challenge the narrative structure of type through more exhaustive collection.

Although Stein's published accounts of the emergence of the aesthetics of *Three Lives* and "Melanctha" do not directly connect these aesthetics with empiricism, the emphasis on collection over narration remains and suggests an ongoing engagement with the

epistemology of data. The first of these accounts, "Composition as Explanation" (1926), never directly mentions science or details of Stein's autobiographical experience outside of an abstract charting of her aesthetic aims. Yet, it theorizes aesthetic innovation in historical terms that draw from the conceptual idiom of empiricism. The piece proposes that "composition" is a historical practice that drives aesthetic innovation and generational self-consciousness. Its opening sentence links aesthetics and generational difference to historically contingent modes of perception: "There is singularly nothing that makes a difference a difference in beginning and in the middle and in ending except that each generation has something different at which they are all looking" (215). Beginning, middle, and ending, or narrative aesthetics, are a function of contemporary perception. In the closest thing to a direct definition of composition that the essay holds, Stein elaborates:

The only thing that is different from one time to another is what is seen and what is seen depends upon how everybody is doing everything. This makes the thing we are looking at very different and this makes what those who describe it make of it, it makes a composition, it confuses, it shows, it is, it looks, it likes it as it is, and this makes what is seen as it is seen. Nothing changes from generation to generation except the thing seen and that makes a composition. (215)

By pointing to "composition," the arrangement and act of arranging "what is seen," as the source of difference, Stein suggests that historical change is perceptual. Composition forms both art and life: "Each period of living differs from any other period of living not in the way life is but in the way life is conducted and that authentically speaking is composition" (219). By extension, representation of reality is fundamental to and inseparable from lived experience in time. Aesthetics are historical, not timeless, and the artist is not a transcendent genius but the only truly contemporary subject. Changes in history, or changes in composition, are not attributable to individual difference but are instead a product of something that lies outside the self, how "everybody is doing everything."

The aesthetic of data is part of this change for Stein. As her studies in psychology and medicine have both indicated, data is how everybody is seeing "the reality," even the reality of human lives. As a way of seeing, it is bound to affect ways of representing and experiencing life. Though Stein never makes this connection explicitly, there is much in "Composition" that links the aesthetic modes of MoA and "Melanctha" to a culture of pervasive empiricism in general and data collection as dominant mode of perception and representation. She pinpoints "Melanctha" as "a marked direction in the direction of being in the present although naturally I had been accustomed to past present and future, and why, because the composition forming around me was a prolonged present" (220). She goes on to provide a rough historicization of the prolonged present, claiming the "composition of a prolonged present" is the hallmark of "the world as it has been these thirty years," or roughly from about the time she became an advanced student of psychology at Harvard/Radcliffe. As discussed in my reading of "The Gradual Making of The Making of Americans" above, Stein's awareness of a "prolonged present" arises from her experience of trying to represent the whole individual, specifically from trying to reconcile the summative designation of type with the continuous collection of data points over time. Further, the emergence of this composition has unsettled her experience of "past present and future" (an historical analogy to the aesthetic terms of beginning, middle, and end).

Stein's continuous present thus draws from data epistemology and is a data aesthetic. It is driven by a commitment to exhaustivity, seeks to collect rather than select, and as a result entails the disruption of conventional narrative form. Her description of the aesthetic projects of MoA and TL demonstrates this disruption. She writes, "In these two books there was elaboration of the complexities of using everything and of a continuous present and of beginning again and again and again" (220). The "complexities of using everything" indicates

a commitment to using every data point, not discarding those that would enable the production of a coherent narrative. Stein connects the prolonged/continuous present with two other formal/composition methods: "beginning again and again" and "using everything," each suggesting a correspondence to data epistemology with their emphasis on exhaustivity and deferral of narrative structure, respectively. These compositional qualities drive each other. From the "groping for using everything" follows "a groping for a continuous present" and "an inevitable beginning of beginning again and again and again." A commitment to exhaustive representation results in a shift in temporality, namely, a continuous present in which the moment of retrospective intervention of narrative and selection never comes because the fullness of reality demands continuous collection. This creates an "inevitable" formal shift in narrative (as Stein calls it, the "the beginning of beginning again and again"), an effacement of endings, which signify selection and therefore interpretation, and middles, which only become recognizable in relation to a beginning and an end. Reality is all present tense when collection never ceases. Stein's "continuous present" depends on a commitment to exhaustive collection that links it to an epistemology of data.

Later, in "A Transatlantic Interview," Stein explicitly connects her compositional method in "Melanctha" to the influence of Impressionist painter Cezanne, but the aspects of painterly impressionism that she calls upon to explain this connection call to mind parallels in scientific theory and practice. Impressionism as an aesthetic movement is associated with the search for representational form that is driven by the capture of sensory data. As Jayne Walker observes, Impressionism is one of many late nineteenth-century aesthetic responses to "the demand for ever-greater fidelity to immediate sensory data" (xix). She further argues that Impressionism and Jamesian psychology shared similar understandings of the physiology of perception, which enabled their shared belief that raw sensory data could be

captured by a careful observer: "Because they shared a common model of perception, the sciences of psychology and optics served to validate the painters' claims that they were rendering the empirical data of immediate retinal sensations. The historical intersection of psychology and painting illuminates the convergence of these two areas of interest in Stein's aesthetic formation" (7). What Impressionism and Jamesian psychology share is representation of the real through the collection of points, with the collector rigorously abstaining from selection and interpretation.

Even as she claims "I was only being a scientist for a while, I did not really care for science" ("Transatlantic" 15), the précis of Cezanne's impressionism that Stein offers in explanation of his influence on "Melanctha" highlights formal features that align it with a mode of data collection. She writes, "Cezanne conceived the idea that in composition one thing was as important as another thing. Each part is as important as the whole, and that impressed me enormously, and it impressed me so much that I began to write *Three Lives* under this influence and this idea of composition." The description emphasizes a parallel form of co-present points (glossed as "part" and "thing"), in which no point can claim greater interpretive significance. She sees in Cezanne an artistic corollary to the representation of self undertaken by empirical sciences, but committed to in an even more extreme way, retaining the equal reality of each point in a way that the generalizing aims of scientific method curtail.

Stein associates "Melanctha" in particular with this idea of composition, continuing, "I was obsessed by this idea of composition, and the Negro story was a quintessence of it" (15). In the remainder of this chapter, I account for this exceptional connection and argue for its implications for modern selfhood through a reading of "Melanctha" that addresses narration, narrative form, and historical context. I understand Stein and Melanctha as

narrators invested in exhaustive representation of the self as a test of what can be known, and how, via empiricism. With the verb "to invest" I mean to signal the dedication of resources to data collection—such as time, effort, and affect—in the belief that doing so will pay off in the form of access to an ultimate, or at least more accurate understanding of, reality or other form of knowledge-power. Their investment drives the creation of narrative forms that challenge narrativity, proposing the complexity of self as collection rather than selection and exposing the differential social implications of this complexity.

The collective and collecting form of *Three Lives*

TL is composed using collective form on two levels: one in its collection of lives and another in its representation of these lives through the collection of experiences—thought, interaction, speech, movement, emotion—rather than through selected experiences that would flesh out a narrative template, such as the bildungsroman. Both of these formal uses of collection link the text to an epistemology of data through the (imperfect and incomplete) substitution of mechanical objectivity for interpretive authority. By imagining life as an exhaustive data collection, these modes also call into the question the relationship of life to narrative.

The work as a whole is organized by the logic of collection, starting with the title. The *Lives* are modified only by their status as collected; no national or other adjective is attached. Further, they are *Lives*, a revision of Flaubert's *Three Histories* that, as Ulla Haselstein notes, "expressly invokes the genre of biography, which promises the reader a narrative focused on the unique choices and experiences of a historical subject" (391). Put another way, it substitutes biological coherence for narrative coherence. As Donald Sutherland has observed, this move to substitute biological boundaries for aesthetic parameters connects

"unity in terms of external events no longer accounts adequately for full reality" (267) at the same time as it reflects "the scientific climate of the 19th century" in which "the single life took on the meaning of a case history, or the natural and inevitable performance of any instance of a species." I would underscore how the scientific investment in exhaustive representation contributes to the unsettling of the realism of unified narrative. In conceptualizing reality as a set of phenomena that must be exhaustively represented before they can be known, empirical science would insist that the conclusions of narrative are always premature and based on the limited perspective of the narrator. The biological life offers a scope of observation that eschews authorial intervention and heightens realism.

The individual *Lives* are also largely structured through biological temporality, emphasizing the accrual of lived moments rather than developmental connections between significant events. It's not that significant events do not happen or are not recognized, by the protagonists and narrator; it's that they do not stop happening. Events, be they things that happen or thoughts a character has, accrue rather than lead from one to the next, an effect created by the seeming inclusion of every little thing that happens. They read more like biographies than novels, and more like observational notes than literary biography.

For these reasons I read TL as a form of life narrative, specifically as fictional experiments with biographical form. The biographical frame is a way of defining exhaustivity and deferring interpretation. Through this frame, Stein asks for a new way of reading as much as it proposes a new way of writing. Nearly all critics, for example, read Melanctha's death as narratively meaningful. For some, it confirms her adherence to the tragic mulatta type, demonstrating the impossibility of biracial identity in early twentieth-century racial discourse. For others, it makes the text characteristic of naturalist form. Reading for the data

aesthetic, however, the ending becomes primarily a characteristic of biography as a genre and biological reality, unsurprising and unavoidable. The ending in death is a distinguishing feature of the biographical genre. Unlike in autobiographical life narrative, the biographer can know how the subject dies. A complete biography includes this information. A more literary biography would also interpret it, either as the end of the narrative or as a meaningless coda to a narrative that had actually concluded some time before. The approach of the narrator in "Melanctha," alternately, is closer to that of a data collector. The final three paragraphs, composed of two sentences each, simply report Melanctha's illness, recovery, relapse, and death. The final sentence, for example, is brutal in its simplicity: "They sent her where she would be taken care of, a home for poor consumptives, and there Melanctha stayed until she died" (187). The narrator's flat, denotative language does not attribute meaning or convey affect in response to Melanctha's death. It is the chronicle of the end of a life, a series of observations recorded at arbitrary or bureaucratic intervals. The exact amount of time comprised by "until" is not specified. Nothing that the subject does signals the beginning or the end of a particular story. Not denying the potential bleakness to the end of her life, whether she herself would attribute bleakness to it remains unverified and inaccessible in this mode of representation. This leaves the question of the ending's meaning open, but it makes a strong statement about the interpretation of life data collections. Recognizing that the interpretation is not intrinsic to the data, the reader must become more aware of interpretation's interventional nature.

The biographical form of *TL* must also be placed in the historical context of marginalized lives being considered as and through data collections. Daylanne English, for example, argues that, given Stein's medical training, its form should be connected to the medical record, which had just undergone a technological and disciplinary shift from being

written down in a common notebook to being compiled as an individual file. Each patient would be represented by this single file, with updates added for each medical encounter, always (or as Stein might say, continuously) in the present tense and never synthesized with prior notes (English 100). Composed in this way, the medical record would display the kind of intermittent exhaustivity that the text does. Only the moments in the presence of the medical professional would be recorded, but those would be recorded in detail and these details would not be edited in light of later findings.

The text's somewhat circuitous arrival at Melanctha as its primary subject alludes to another a form of data collecting that Stein may have participated in or observed, that of a public health or sociological inquiry unfolding. The chronology of the text does not conform to a birth-to-death chronology centered on Melanctha alone. It begins focused on Rose and her newborn, with Melanctha initially appearing as a supporting character. Birth might very well have occasioned a home visit from a public health investigator, and Stein (albeit through the voice of Alice B. Toklas) connects the writing of "Melanctha" to her work delivering babies, in a passage often quoted but rarely read in full. During her final year of medical school, "she had to take her turn in the delivering of babies and it was at that time that she noticed the negroes and the places that she afterwards used in the second of the Three Lives stories, Melanctha Herbert, the story that was the beginning of her revolutionary work" (82). Noticing "places" suggests these might have been homebirths or required some kind of follow-up home visit. Like English, I am not arguing that the form of the medical record or social work case study is some kind of "hidden" or "actual" frame that clarifies all of the text's idiosyncrasies. I do wish to draw a connection between the historical development and circulation of these genres, the professional observational mode that produces them, and the representation of racialized womanhood that results. Read as a genre of professional

observation, be it medical or sociological, the text's repetitive vocabulary functions as a controlled vocabulary—a professionally determined lexicon of terms that have agreed upon meanings and that constitute the full range of perceptions a professional adopting that lexicon may record in order to create the conditions for empirical validity. Character descriptions frequently contain multiple adjectives, but most of the time only one adjective per category (e.g., race, perceived character, affect), mimicking the effect of checking off boxes on a survey, a formalized version of observational practice. Seeing Stein's form refracted through the lens of professional practices of observation, girded by claims of empiricism, we gain a new vantage on the text's narrator. The narrator's omniscience is a rhetorical effect, not a final word. While this narrator's declarative syntax makes her seem flatly comfortable with the condemnations her observations constitute, she is also impelled to by the imperative to collect even what does not accord with the social types and narrative structures these observations are meant to substantiate. For this reason, the text her observations form exceeds the determination her terms seek to enact. The narrator in this view is more of an ambivalent figure. While her terminology aligns her with a presumption of type and inherent racial difference, her commitment to exhaustive collection of data compels her research to undercut that presumed reality.

The ambivalence and atypicality of this narratorial stance is conveyed by her selection of Melanctha as an object of study. Rose, as a new, black, urban-dwelling mother, would more plausibly have been the initial object of study for a visiting medical or social worker. Melanctha, however, quickly becomes the focus of the narrator's collecting attention. The narrator is sidetracked from reporting on Rose by the puzzle of Melanctha's presence: "Why did the subtle, intelligent, attractive, half white girl Melanctha Herbert love and do and demean herself in service to this coarse, decent, sullen, ordinary, black childish

Rose, and why was this unmoral, promiscuous, shiftless Rose married, and that's not so common either, to a good man of the negroes, while Melanctha with her white blood and attraction and her desire for a right position had not yet been really married" (89). This is, specifically, a question about why her life story does not conform to that predicted by racial typology. Being "half white" should, the narrator's question implies, set her on a different social trajectory from the "ordinary, black" Rose. Instead, it is Rose that has achieved the narrative status of marriage, motherhood, and a "right position." Melanctha's life is positioned by the narrator as a confounding nexus of typological narratives of race, womanhood, masculinity, and reproduction. That this confounding data point is what the narrator then chooses to zoom in on tells us something about the narrator's epistemological commitments. Rather than looking for evidence to confirm the reality of type, as many empiricists in medicine, sociology, and even psychology in her era were attempting to do, she takes a receptive stance, suspending the projection of type in order to pursue a genuine research question.

Much of the text's distinctive style and narrative form results from the narrator pushing toward the exhaustive side of the representational scale. The text pushes toward exhaustivity in its biographical framing (an exhaustive approach to biological life) and in its representation of periods of Melanctha's life within this frame. Though it certainly does not include every moment of her life, the ones that it does are recorded as if in real time, collecting each contradictory determination, reversal, and mood as it occurs, without the appearance of editing. These moments are themselves delved and made dense repositories of data by being overloaded with description.

The data aesthetic provides an illuminating context for many of the linguistic idiosyncrasies of the text, including repetition and parataxis. The use of a limited range of

descriptive words suggests the use of a controlled vocabulary (as discussed above, this also alludes to the terminology of professional practice), and the repetition of these abstract terms creates the effect of collection rather than narration. Repetition is perceived as a violation of narrative (and good style), which should always be moving toward an ending in light of which each selected moment will be uniquely consequential. A day, a year, or a life represented through exhaustive and unedited data collection would look very repetitive indeed, especially when transcribed into a consistent vocabulary or notation of action. For example, the text is shot through with the repetition of seemingly binary temporal designations, "always" and "never" used to refer to what are actually time-limited states. The use of these blunt, blanket terms conveys the seeming solidity of the present when it is cast as a data point, a discrete mark of the real that can be placed alongside but not displaced by other equally real points. In the now, one is either always or never doing a particular thing. Only when surveyed retrospectively can the transience of permanence appear and be assigned a trajectory and relative lengths. Repetition is also legible as conceptual play with the ideal of exhaustivity. If exhaustivity is the prerequisite to definitive revelation, why is it so confusing to read? Does more data really propel more knowledge?

My argument that "Melanctha" can usefully be read as a data collection and that it bears important resemblances to certain historical forms of data collection is not meant to claim that this resemblance is complete, exclusive, or literal. Yet, I argue that by taking the parts of the text that most seem to stretch a practical definition of data, we may gain insight into just how prescient Stein is in her engagement with a data imaginary. For example, even an investigator who was continuously in contact with her subjects and took dictation would not have captured what is going on in others' minds in real time, as the text seems to do. We might see this, though, as the text asking, what if such observation was possible, if the

sociological/medical gaze was appended to an impossible sensor set to record as data every thought that occurs within a given time period? Picking up on its formal and conceptual engagement with data collection allows us to place it as a thought experiment about possible forms of data, such as the scope of subjective and intersubjective phenomena that would need to be captured for a truly exhaustive representation of self to be realized, and the narrative/epistemological/social implications of such a self-representation.

Dueling data collectors: Melanctha and the narrator

Among the TL, "Melanctha" is unique in length and narratorial proximity to the protagonist's subjectivity. Although the data aesthetic is also legible in the other two lives, "Melanctha" is a special case due to its overt thematization of knowledge and narrative, and even more importantly due to Melanctha's relative agency in self narration. As the narrator records, Melanctha defines her relationship to her own complexity, for she "had not made her life all simple like Rose Johnson" (91). While most of what the reader knows about Melanctha is mediated through the narrator's seemingly objective but clearly also judgmental view⁵, this view includes a significant amount of reported dialogue and limited but telling glimpses into Melanctha's thinking about herself. The inclusion of this data enables a sense of Melanctha as a co-present narrator of her selfhood to emerge. Thus, I consider the text to have two legible narrators, whose conflicting takes on Melanctha's life story stage the contest between exhaustive data collection and definitive narration as modes of representing the "real" Melanctha and a debate over who has the authority to collect and interpret the data of her life.

The third-person narrator of "Melanctha" seems sometimes omniscient and sometimes focalized as an anonymous, objective researcher.⁶ The oscillation between

omniscience and focalization is exactly the type of text that would result from a series of encounters between a researcher and subject. As discussed above, the narrator's eye coincides with the white sociological/medical gaze. Some of the details about Melanctha that suggest narratorial omniscience resembles the kind of information gleaned through oral history—the researcher could conceivably have learned of Melanctha's childhood through an interview. Other details are of the type that an outside observer could not actually observe, such as minute variations in emotion. Given the prevalence of such details, attributing a distinct personhood—not just subjectivity—to the narrator introduces another interpretive problem: much of the text demonstrates a kind of omniscience that is plausible for a narrator but less plausible for a person. But this inconsistency itself presents a number of potentially interesting critiques of an empiricist conception of selfhood, the relationship of knowers to the known, the limits of discovery of others via empiricist inquiry, and the assumptions of knowability that empower empiricist professionals. What if a person could observe and record all these things about another person? Would knowledge of that person's "real" self be more forthcoming? The narrator might thus be seen either as a kind of thought experiment—what if the workings of interior selfhood could be recorded, seen by an outsider as readily as experienced by the subject?—or an exaggerated, nearly parodic version of the arrogant researcher.

The second data-driven narrator is Melanctha herself. As a narrator, she is equally invested in collecting the data of her self and more committed to reckoning with the fullness and contradiction of it. The desire for experience is one of her defining traits and the collection of it one of her lifelong practices. "Melanctha all her life," the narrator notes, "was very keen in her sense for real experience" (96). She acts on this sense by conducting "wanderings after wisdom" (96). Though the denotative meanings of "wandering" and

"wisdom" are nearly opposite the purposive activity of collection and the pre-knowledge status of data, the repetition of these terms to describe Melanctha's methods and goals throughout the text works to estrange them from these definitions. The way Melanctha seems to define and practice wandering for wisdom goes against the grain of these literal definitions. She wanders repeatedly, as a practice and a process aimed at accumulation rather than completion. Its product, wisdom, shares a cumulative nature. There is always more of it to be collected, and reflection upon it is deferred. While she is constantly seeking wisdom, she actively resists explaining herself through selective narrative, indicating an epistemological commitment to collection.

Based on these practices, both Ruddick and Cecire have made compelling cases for understanding Melanctha as a knowledge worker in her own right. Ruddick argues that "references in 'Melanctha' to the heroine's many 'wanderings' have rightly been considered part of a sustained euphemism for sex, but one might easily reverse the emphasis and say that sex itself stands in the story as a metaphor for a certain type of mental activity" (18). Melanctha also undertakes this mental activity in a manner that aligns her with the practices of exhaustive data collection. Ruddick continues, "Melanctha's promiscuity is part of an experiential promiscuity, an inability or unwillingness to approach the world selectively." While Ruddick links Melanctha's non-selective attention to Jamesian psychology, which finds it pathological, we might also link it to the ideal of exhaustive data collection that drives empiricist inquiry, which would make Melanctha's mode of perception not unscientific but radically so. Cecire describes Melanctha as doing "camera work, the mechanical female scientific labor of abject mimesis" (97), a description that unlocks a range of resonances with data collection and locates Melanctha in the historical context of professional science, which has typically assigned women to roles requiring the most precise

hewing to objectivity but then devalued that objectivity as mindless automatism (Oreskes 89).

Following these critics' placement of Melanctha in the role of knowledge worker as data collector, I want to further call attention to Melanctha as a data-driven narrator of self and to the bifurcated effects of this position. One the one hand, her insistence on collecting experience and claiming all of it as equally real marks her claim on intellectual agency and epistemological sophistication, which she shares with the other narrators of this study. She introduces an aesthetic of inclusion in the narrative of selfhood, having "not made her life all simple" (91). Her insistence on and the consequences of this aesthetic is most clearly articulated in her repeated debates with Jeff Campbell over "which is a real Melanctha Herbert" (123). Broadly, she uses two tactics in these debates, both of which hinge on linking real selfhood with the entirety of experience. She asks him to recognize his own complexity, the contradictions between idea and deed that an exhaustive accounting of his own past surfaces, as well as asking him to form his own conclusions based on his entire experience with her, not others' accounts. Her refusal to summarize herself or to refer back to any past version of herself as definitive marks her consonance with Stein's career-long project of representing "the whole of anyone" (LIA 139). On the other hand, this intellectual project also has disempowering consequences in the context of Melanctha's social milieu. Melanctha is also driven by data in the sense that her refusal to self-narrate is met by resistance rather than receptivity. Melanctha never finds a partner willing to share her approach to selfhood, a commentary on the exclusionary nature of social narratives and the illegibility generated by distancing oneself from them.

I differentiate between the presences and perspectives of Melanctha and the narrator not to absolve Stein of the well-founded charges of at best racial appropriation and at worst

racism but to open up the differences in narratorial perspective as a site in which the epistemological claims of data representation (as exhaustive and point/collection formed) are tested and contested. As English cautions, "When Stein's medical training, literary experimentation, gyno-centrism, and racialist imagination converge, as they do in *Three Lives*, the result is a highly complex, politically unstable examination of alternative forms of subjectivity articulated specifically via women characters" (98). The alternative form of subjectivity that Melanctha proposes is at once avant garde, anticipating a scientific rubric and data collection technologies that will become the cutting edge of self-knowledge, and retrograde, repeating the inscription of minority narrative as incoherent. Her striving to "tell a story wholly" means that she tells no story others can understand as a claim to selfhood. Although I see Stein, the narrator, and Melanctha as sharing in the broadly defined method of data collection, I do not see their practices as identical nor their conclusions as equivalent. The narrator accepts and employs a vocabulary of racial typography that corrals subjects into categories, and narratives, they demonstrably do not fit, while Melanctha seeks a vocabulary for self that will convey the radical difference of her own experience. The narrator is absolved from presenting her own conclusion or questioning the conclusions implied by her terms, while Melanctha is repeatedly forced to account for herself and can offer no satisfying conclusion to a collecting process that is ongoing. She is "lost" without her relational interlocutors, and unable to voice an answer to the last recorded question asked of her, Jem's "Tell me Melanctha right and true, you don't really care nothing more about me now" (186). Immersed in her findings of "care" being not a binary state but a wave function of degree, she "never could have for this an answer" (186), a reading of self that confounds Jem's demands for "right and true" clarity. Reading conclusions in a double sense, both as findings and narrative ends, further underscores the differential interpretation of like practices when

undertaken in differently gendered and raced bodies. The narrator presumably lives to collect another life; Melanctha does not.

To tell a story wholly: Melanctha's narrative aesthetics of self

Self-knowledge and narration are intertwined capacities and desires in "Melanctha." This life story is not only Stein's search for a narrative form driven by exhaustive collection or a clinical/case record of some kind, but the story of a subject who seeks to be able to tell herself exhaustively. The narrator tells us, "Melanctha all her life did not know how to tell a story wholly" (98). Instead of seeing that as Melanctha's lack of facility with traditional narrative form, we might better see it as her, and Stein's, search for a data aesthetic, a form of story that can deal with the reality of self exhaustively conceived. What Melanctha is actually unable to do, as the following sentence describes, is be satisfied with applying Aristotelian narrative aesthetics to experience: "She always, and yet not with intention, managed to leave out big pieces which make a story very different, for when it came to what had happened and what she had said and what it was that she had really done, Melanctha could never remember right"—just as none of us can without the externalized memory prosthetics of the data collection. "Leav[ing] out big pieces" is exactly what traditional narrative form would encourage, even demand, and it is this selection that "make[s] a story very different" than "what had happened...and what it was that she had really done." Being able to "tell a story wholly" is the desire that haunts the narrator who holds representation accountable to what "really" happens as the data-driven episteme leads her to perceive it.

Melanctha's commitment to exhaustive collection is accompanied by the narrator's ostensible, though, as discussed above, much more constrained version of the same. Both construct stories governed by an aesthetic of inclusion that de-centers traditional plot

structure. By "aesthetic of inclusion," I refer to stylistic and thematic insistences on including more information than is necessary to tell a conventionally plotted story, a willful expansion of realist representation that paradoxically seems like a diminution or obscuring of significance. In place of traditional plots of marriage or self-discovery, there are records of multiple, temporarily realized and ultimately frustrated, desires for knowledge of self.

The text is structured by a series of relationships that highlight the self's perpetual emergence through social assemblage. In each relationship, the narrator seeks to understand the mystery of Melanctha's acting against type, and Melanctha attempts to conduct a conversation about not only who she is but how and in what form knowledge of self can be apprehended. I focus here mainly on her relationship with Jeff Campbell and to a lesser extent her relationships with Jane Harden and Jem Richards. From her parents, she gleans only the non-recognition of her mother and the masculinist interpellation of her father, who can only interact with her in a possessive manner. Her best friend Rose Johnson provides more of a negative example of the kind of "made simple" life that would be open to Melanctha if she chose to constrain her knowledge of self to conform to its narrative bounds. Jeff, Jane, and Jem are Melanctha's primary interlocutors on the question of the relationship between data, narrative, and self.

Melanctha's relationship with Jane is an initial foray into formalizing her desire for "wisdom" into a mode of selfhood. Prior to meeting Jane, she had already begun her "wanderings after wisdom" (96), frequenting railroad yards and shipping docks to interact with men and hear their stories of the world beyond Bridgepoint. This "attempted learning" does not satisfy, however; although "many things happened to Melanctha" she finds that "none of them had led her on the right way, that certain way that was to lead her to world wisdom" (100). It is important to note, here, that Melanctha is seeking this "certain" way, or

as she puts it elsewhere, "the best way for her to do" (91). In this, she is like any other committed empiricist. She is not collecting data for its own sake but in search of revelation, in this case of her own identity. Her atypical, and modern, subjectivity arises through this commitment rather than despite of it. It is not so much that Melanctha rejects narrative as that she refuses selection, willing to take collection to an extreme that may not permit the expected result to emerge.

In Jane, Melanctha sees a woman "not afraid to understand" (100) who can kick start the real story of her life by making her "begin to understand" (101). Her relationship with Jane sets up the pattern of repeated beginning without a resulting ending. When the adolescent Melanctha begins wandering on her own, the narrator observes, "Melanctha now really was beginning as a woman" (95). Although during her friendship with Jane, she begins "to see clear before her one certain way that would be sure to lead to wisdom" (101), this certainty is quickly challenged by the new set of experiences she collects in her burgeoning relationship with Jeff. If the text had ended there, hers would have been the story of wisdom achieved through female affiliation, but the continuing of the data collection contextualizes her acquaintance with Jane as another beginning that also fails to lead to a culmination. Instead, the end of her primary relationship with Jane is described in chronological terms that shift their relationship out of the interpretive framework of a particular narrative progression: "Before the end came, the end of the two years in which Melanctha spent all her time... with Jane Harden" (101). Like Henry Adams, Melanctha will begin and begin without the vindication of an ending.

When Melanctha meets Jeff Campbell, "ready now herself to do teaching" (103), she begins her longest relationship and longest debate over the nature of selfhood and the methods through which it can be discerned. They are both in pursuit about knowledge of

life. Jeff "loved best science and experimenting and to learn things" and is "always very interested in the life of the colored people" (105). Jeff's understanding of the reality of self is strongly theory-driven. He advocates being "regular in all your life...to always know where you were, and what you wanted, and to always tell everything just as you meant it" (109). Melanctha's mode of continuous collection of experience is specifically contrasted to Jeff's love of "science and experimenting." She does not "feel the same as he did about being good and regular in life...the way that Jefferson Campbell wanted that everybody should be, so that everybody should be wise" (108) and instead sticks to her "strong sense for real experience" which is why she does "not think much of [Jeff's] way of coming to real wisdom" (108). Her "real experience" cannot be contained by his "regular" life, which she sees as constraining rather than enabling wisdom. Many have read this opposition as a critique of the scientific method. But viewed in a broader conceptual and historical context of the difference between experimental and data collection science, this does not mean that Melanctha is simply a-scientific. It means instead that she is on the avant-garde of science, practicing a mode of accumulation that anticipates the "sensors everywhere," continuous collection theorized by fourth paradigm science and replaces visionary singularity. It also links her with the female knowledge worker, described by Farland and Cecire, whose practice of scientific method is not inherently gendered but interpreted as such, in this case by the narrator. A data-collecting woman is merely collecting, while a data-collecting man is doing science. Through Melanctha, Stein figures the disruptive, subversive commitment to exhaustivity that is also overlooked by her own scientific observers during her anatomical research.

These competing methodologies lead Melanctha and Jeff to disagree about the "real" nature of a person. "Real," for Jeff, is conclusive, an intrinsic nature revealed and fixed

through the evidence of individual action. For Melanctha, it is a continuous commitment to experience, resulting in a collection of equally real experiences constituting the self. It is through the collection of data about Melanctha's past behavior that Jeff believes he will be able to know who she "really" is. Yet, he finds that more data does not lead to conclusive knowledge. Instead, he confronts her: "I certainly know now really, how I don't know anything sure at all about you, Melanctha, though I been with you so long, and so many times whole hours with you" (124). Continuous contact, "whole hours" over many days, seems to obscure rather than clarify knowledge of her. Instead of the one "regular" self he believes all people should adopt, he finds "Sometimes you seem like one kind of girl to me, and sometimes you are like a girl that is all different to me" (123), each "certainly seem[ing] to be real for the little while it's lasting." He pleads with her to tell "which is the way that is you really" (123). Rather than assuaging his anxiety by making an argument for one real self, Melanctha shares more data concerning her reaction, which is to be hurt by his dismissal of all she has seemed to be. She does not answer his question, but instead asks for him to remain open to experience as it unfolds rather than freezing it into an assessment. Like all knowledge of self and other in this text, this argument is not decisive. The two go through a series of these confrontations, with Jeff each time getting caught up on conflicting evidence.

Melanctha and Jeff's interactions form an extended debate over the relationship of narrative to self. Life narrative, in Jeff's view, functions as a rubric for predetermination of action and the evaluation of experience. Jeff advocates a structured narrative of living, not only as a matter of preference but as an ideal of racial uplift. Being "always very interested in the life of the colored people" (105) and "what he could do for the colored people" (108), he formulates an ideal of "living regular" that he wants this community to follow. For Jeff, "to be regular in all your life" (109) means "not to be always wanting new things and

excitements, and to always know where you were, and what you wanted, and to always tell everything just as you meant it." It also means being a "decent," or rational and middle class subject who will "live regular and work hard and understand things." Living regular means not only following a daily routine but subscribing to a constraining narrative frame of action. By eschewing "excitements," or data points of experience that lie outside this narrative line, and performing the routine of work, the subject will attain a coherent status.

Jeff's rationalized selfhood is the opposite of Melanctha's empiricist immersion in experience. The first time Jeff's model of living is described, he is ostensibly in conversation with Melanctha. The narrator notes that "Jeff Campbell now spoke with some anger" but clarifies that this is "not to Melanctha, he did not think of her at all when he was talking. It was the life he wanted that he spoke to, and the way he wanted things to be with the colored people." Instead of speaking to the person beside him, he speaks to an abstraction twice removed—a narrative that already shapes that he has not yet lived. Melanctha sees the narrative parameters of "living regular" as an inadequate, reductive approach to the reality of self. "Don't you ever stop with your thinking long enough ever to have any feeling" (119) she asks of him. She is not asking him to stop thinking, but rather to expand the type of data that he admits as evidence in his search to understand human life.

Under the gaze of both Jeff and the narrator, Melanctha is in the position of experimental subject as Stein describes it in the 1894 lab report, forced to account for herself in relationship to an externalized record that she does not control. Embodied in Jane Harden, "Her record is there she cannot escape it" (cited by Raine 808) in her relationship with Jeff. The narrator likewise keeps accumulating unassimilable evidence in a text that continually displaces Melanctha from narrative frameworks.

The aesthetic of inclusion creates the pervasive effect of anti-climax created through including many more plot/data points than would be necessary to create a traditional romantic plot, or a structured plot of any kind. The effect of inclusion is primarily created through minute tracings of certain moments of interaction, overloading them with detail and things that happen without identifying any decisive event. Significance is a narrative effect, a narrowing of focus that leads to the expansion of meaning for a particular moment or event. "Melanctha" demonstrates an inverse textual logic. Moments and events accumulate, expanding the scope of data but winnowing the significance of any single moment. This also creates the effect of having been recorded in real time and the complete record being now presented, with no retrospective editing to highlight the moments that turned out to be most salient.

Recording each interaction between Jeff and Melanctha in real time, without the smoothing of foreshadowing or anticipation, creates the strangeness of their relationship. Even though their relationship is at the center of the text, it is from the outset not going to fall into the category of fated love story. Jeff's initial reaction to Melanctha gives no hint of the eventual intensity of their attraction: "He did not find that he liked Melanctha when he saw her so much, any better. He never found that he thought much about Melanctha" (107). Bluntly stated in what seems like absolute temporal terms, the fact of a moment appears fixed. Because these facts are collected as discrete data points, they do not clearly tend in one direction or the other at any given time. The disjunctive quality of these points makes the status of the relationship seem to jump between points rather than progress. The change from indifference to attraction seems imperceptible because it is impossible to pinpoint among the gradations of thought and emotion as they are repeatedly noted rather than condensed to explanation or example. Juxtaposition is as close as the text gets to causation.

For example, following their first extended conversation, a debate about "living regular," the narrator observes that they "now saw each other, very often" and "always liked to be with each other" (115). It seems implied that the intellectual sparks of this debate triggered a deeper connection between the two, but it is never explicitly stated that the conversation is what led to the change in Jeff's assessment of Melanctha.

The temporality of the continuous present realized through observation/description approaching exhaustivity alters the nature of event, making it impossible to say exactly when something happens. Melanctha's transitions between primary relationships demonstrate this effect. The end of her relationship with Jeff is never announced; the text simply states that Melanctha "now always wandered" (again, though this modifier is not used) and begins to chart, with the same minute level of description that accompanied her relationship to Jeff, her closeness with Rose. When Jem Richards enters the narrative, the shift away from Rose occurs with similar gradualism. It begins with periods of slight separation, "and so though Melanctha still was so much with Rose Johnson, she had times when she could not stay there" (174). Then "one day," she meets Jem by chance, parts after a brief encounter, not seeing him again for "some days," after which she beings to "always [like] Jem Richards better" (176). After this indeterminate period, she is "now less and less with Rose Johnson." The narrator goes so far as to state "Rose was nothing just then to Melanctha." Still, a few short paragraphs later, Melanctha is said to "let out her joy very often to Rose Johnson. Melanctha had begun again now to go there" (176). The ebb and flow of her relationship to Rose is not a plot, it is a record. As a record, it calls attention to the production of event through the isolation of incident.

Her relationship to Jem is similarly made to seem directionless by a time frame that resists being cropped to produce a beginning, middle, and end. As she moves toward and

away from Rose, she seems to be drawing ever closer to Jem, so close that, were it to be read literally, the text suggests the end of her story is with him: "Now in Jem Richards, Melanctha found everything she had ever needed to content her." This sentence, read literally, seems like the end of a story. Having "everything she had ever needed," what else is there to seek? Were the text to stop there, it would seem to be a satisfactory one, with her relationship to the charming and "game" Jem being her reward for not settling for Jeff's intellectualizing and Rose's self-centeredness. This ending would suggest that Melanctha had experienced personal growth and that such growth culminates in monogamous heterosexual marriage. Of course, committed to the biographical form and biological scope of a life, the text cannot end there and must, as a consequence, surface the narrative instability of life.

Finding "everything she had ever needed to content her" with Jem proves not to be the end of Melanctha's story any more than being certain of the way to wisdom with Jane. This ironic declaration of conclusion subtly hearkens back to the epigraph of *TL*: "Thus I am unhappy and this is neither my fault nor that of life." In the context of a life, contentment, or happiness, is not an achievement, the result of a stable plot playing to its conclusion. It is a data point rather than a stopping point, and viewed in the fullness of a biological lifespan's record of experience, it is transitory. Exhaustively considered, life is largely unhappy, no matter the efforts made by individuals. These are not narratives about assigning blame for this fact but naturalizing it as part of realistically incongruent human experience.

Seeking to know and tell this whole story of self leads Melanctha into conflict with the narratives of middle class morality and masculinist empiricism as practiced by her partner Jeff Campbell (see Ruddick 13). Jeff is unable to reconcile Melanctha's past with the future wife he imagines, and Melanctha refuses to renounce this past, instead claiming the

coherence of her entire history and what appear to be conflictual selves. Ultimately, "Melanctha is too many" (147) for Jeff, and their separation is one point in a series of relationships that cannot encompass Melanctha's insistence on self as movement and multiplicity. Melanctha never finds a partner willing to share her approach to selfhood and dies in social isolation, a commentary on the exclusionary nature of social narratives and its material effects on actual lives. Her allegiance to holding the seemingly contradictory aspects of her historical self in parallel potential precludes conforming to the shape of available narratives of womanhood.

Her life is not essentially unshaped, though it is actively unshaped by the form's commitment to non-selection and exhaustive chronological scope. It is thus multiply evident: it could confirm Melanctha as a tragic mulatta, a poor, marginalized subject without medical agency, a bisexual woman who could not find viable life companionship, a thwarted seeker of knowledge. It would not make that data point unavailable for that reading, but it would also not confirm it as the conclusive reading.

Melanctha's pedagogy of selfhood

In one of his letters, Jeff asks Melanctha for a pedagogy of (her) self: "Perhaps she could teach him how it could all be true" (128). "It" refers to Melanctha's history (specifically what?), which Jeff perceives to be unresolvable with his present desire for her and his belief about himself that he can or should only desire a consistent, regular partner. He could, then, just as well be asking to understand himself as to understand her. By his own account, he nearly arrives at an answer. Although before their relationship he "certainly never did know more than just two kinds of ways of loving, one way that is good…and another kind of way…I didn't ever like" (136), he finds he has a "new feeling now" that he

attributes to her teaching. Now, he sees "perhaps what really loving is like, like really having everything together, new things, little pieces all different, like I always before been thinking was bad to be having, all go together like, to make one good big feeling" (136). This new mode of perceiving selfhood proves unsustainable for Jeff, but his proposal stands as a lesson for readers of Melanctha and Stein. Recognizing their prescient commitment to reckoning with the data of self, collected, assembled, and circulating, we can see Melanctha's isolation and Stein's emergent aesthetics of life writing as critiques of empiricist representation of self without ethical revision of reading, specifically with reading for identity through narrative form. Continuously described, life thwarts type—an epistemological victory for those who type, whether of gender or of race, would condemn. Still, if representation via collection highlights nonidentity, it also produces nonidentity for those it represents. As readers, we must grapple with the differential social effects of perceived nonidentity.

The history of critical assessment of Stein's writing provides one example of such an effect. As Perelman describes, there has long been a hesitance to accord her the label of genius, not only because her vocal insistence upon it has been perceived as too self-promoting, but because the vastness of her archive seems to preclude it. He assesses, "Her imperturbable commitment to her daily practice of writing rather than to the quality of any particular bit of the product is the primary fact. There is a literalism and self assertion to her work that is not easy to assimilate to aesthetic or literary historical categories of judgment...her seemingly endless output was not selfless meditation: she insisted on its value as masterpiece and her own value as genius" (130). The problem with declaring Stein a "genius" is, in Perelman's view, that genius is defined via selection rather than accumulation. It is the accumulating mode of her writing practice that disqualifies her. A genius would

polish a few works and discard the rest, erasing evidence of process. In the context of her scientific work, though, we find a model for this very notion of genius, and another example of Stein being excluded from it. If, as sociologist Georg Simmel proposes in his claim that "empiricism replaces the single visionary or rational idea with the highest possible number of observations," modern scientific subjectivity is defined by the shift from scientist as personal genius, or "visionary," to scientist as accumulator of "individual cases," then Stein's work as a lab assistant to Frederick Mall should have qualified her as modern scientist, par excellence, rather than contributed to her work's rejection for being overly detailed and insufficiently synthesized. It should not only have qualified her, Cecire suggests, but any woman scientist, whose laborious collecting work was gendered female and therefore mindless due to its repetitive nature. In neither case is the data, in the form of Stein's work, allowed to speak for itself. It is filtered through gendered narratives of accomplishment first.

If Stein embodies modern genius, so does Melanctha. Her most consistent return is to wandering as a form of wisdom collection, but to her friends and partners this commitment is less legible than being unmarried. Neither work nor marriage, nor race in strict point of fact, serve to structure the disparate data points of Melanctha's life. Stein's life shares many of the same data points. Understanding Melanctha as Stein recast, while not lessening the appropriative blackface performance, reveals that this is Stein's biggest challenge to the notion of an empiricism of self. The same data points look different when applied to differently gendered, racialized, or classed bodies. If the data of self represented a transparent truth, Melanctha and Stein would have the same life story. The same desires situated in different bodies lead to unequally problematic narratives. It matters whose life is represented in this way. Stein's claiming of Melanctha as the "quintessence" of her disruptive

compositional mode leaves the relationship between self and form ambiguous: does Melanctha inherently have these features or does the form create her as such?

By way of answer, Stein and Melanctha ask us to uncouple life from narrative. Both do so in multiple, sometimes overlapping and sometimes far removed, contexts of consequence. In the context of her relationship with Jeff, Melanctha's uncoupling of life from narrative amounts to literal uncoupling and to the refusal of a politics of respectability. It also might be seen to guide her away from the suicide that she often considers, which would be a more agential claiming of life end's point more akin to inscription than collection, a closing gesture that ultimately does not appeal. The narrator's research question frames this uncoupling as a contestation of racial norms governed by inheritance. Stein's figuration of a woman seeking knowledge speaks to the academic science establishment from which she had recently emerged. Connecting Stein's life narratives to data collection emphasizes this play: she is imagining "what if" we had the data that science claims will clarify even the human self, and through this imagination constituting modes of selfhood that defeat clarification (and concretization). She is claiming this self as a modern genius, with accumulation as her method. The practice of accumulating observations would be nothing new for the female scientist, already associated with the labor of mindless, physical accumulation of data. In this context, the female scientist would be genius incarnate.

Notes

¹ See Ruddick 13 and DeKoven 71-73.

² See North 70; Hovey 547-549; Doyle 250, 263; and Blackmer 232.

³ See Stephens.

⁴ See Hoffman; Sutherland; Meyer.

⁵ As Saldívar-Hull has pointed out, "From the first page of "Melanctha," the racial slurs obscure any sympathetic portrayal of a character in Stein's story" (190). As the opening sentence's array of adjectives for Melanctha demonstrate, these racial slurs are conveyed in a straightforward and repetitive manner that calls upon the rhetoric of a sociological

investigator's controlled vocabulary, making them seem objective and helping their naturalization of harsh, unnuanced judgments made of the characters observed.

⁶ For a detailed accounting of shifts in perspective, see DeKoven 81-82.

CONCLUSION

Numbers, Knowledge, Self: Data-Driven Methods of the Human

For a long time, only one area of human activity appeared to be immune. In the cozy confines of personal life, we rarely used the power of numbers.... A journal was respectable. A spreadsheet was creepy. And yet, almost imperceptibly, numbers are infiltrating the last redoubts of the personal. Sleep, exercise, sex, food, mood, location, alertness, productivity, even spiritual well-being are being tracked and measured, shared and displayed.... Two years ago...I noticed that the daily habits of millions of people were starting to edge uncannily close to the experiments of the most extreme experimenters.

—Gary Wolf, "The Data-Driven Life"

Empiricism replaces the single visionary or rational idea with the highest possible number of observations; it substitutes their qualitative character by the quantity of assembled individual cases.

—George Simmel, The Philosophy of Money

Essentially, all models are wrong, but some are useful.

—George Box, Empirical Model-Building and Response Surfaces

On or around April 28, 2010, data-driven selfhood went mainstream. On that date, the proclamation cited above greeted print and digital readers of the *New York Times*Magazine, introducing to a global audience the idea that there were now two types of selves: quantified and soon-to-be quantified. If we believe the assessment of Gary Wolf, co-creator of the website quantifiedself.com, average middle class U.S. Americans (and perhaps the global developed world at large) now occupy the relationship to self once only imagined by the avant-garde of life data collectors, composed of the computer-obsessed, and, this study has argued, certain modernist life writers of the early twentieth century. Decades before the idea that every metric of self could actually be recorded and stored, they asked, what if the

self could be represented exhaustively through data collection. Their conclusions are prescient and instructive for understanding the Quantified Self and other contemporary empiricist approaches to the human.

Quantified Self-ing, as Wolf paradigmatically lays out in this article, in many regards continues the simultaneous embrace and critique of data as a route to understanding human life that has been modeled by the writers of this study. It, too, stems from a historical moment in which the epistemological imaginary has firmly equated data with reality. Further, this imaginary has collided with a perception that it is finally technologically possible to "collect it all" and the algorithmic mechanisms to parse it all. The resulting commitment to exhaustive collection and comprehensive analysis re-iterates the basic wager of data collection that the writers of this study also took up: by stepping away from the stance of the sage and into role of data collector, we may reap insight from numbers that disrupt our preconceptions and surpass our innate ability to perceive, remember, and interpret our lives. And if our knowledge is better, so may our lives be.

Beyond these broadly shared general principles, though, there are interestingly uneven reflections on the conjunction of data and the human. Practicing Quantified Selfers,³ unlike Henry Adams, seem unconflicted about the idea that the body and mind can be accurately represented by data. Rather than seeing it as a reduction of human complication or diminution of agency, they see it as a crucial intervention. "People do things for unfathomable reasons," writes Wolf. "They are opaque even to themselves." Data is seen as having the potential to turn the dark woods of the unconscious into a dry and discrete set of data points, and therefore the potential to reveal this knottiest of all realities, the human self. Yet, like Stein, many of them are less interested in solving a particular problem than discovering how strange the reality of self, exhaustively conceived, truly is. Wolf explains,

"Self-tracking, in this way, is not really a tool of optimization but of discovery, and if tracking regimes that we would once have thought bizarre are becoming normal, one of the most interesting effects may be to make us re-evaluate what 'normal' means." While many seek empirical evidence for their own best practices, for reasons ranging from health to work to romantic success, a fundamental tenet of the practice is that no two people's best practices will look alike. Put another way, they embrace personal data but reject population statistics. They invest in the empirical reality of self but reject that empiricism can lead to universal knowledge. They want big data for an n = 1 study. This is both an affirmation of individual difference and an insulation of the self from sociality, a disarticulation that Du Bois would warn is bound to be politically ineffective for changing the material and ideological conditions that might give rise to the very health, work, and relationship frustrations that they began to collect data to address. Yet, like the writers of this study, some critics of the Quantified Self suggest that the best way to counter data's shortcomings is with more data. "Quantify Everything," proposes feminist writer Amelia Abreu:

I want Quantified Self to be a messy space, one where users willingly choose the aspects of their lives they are proudest of, and most troubled by, and allow them to track, and engage with their narratives over time on their own terms. I wonder if we can ever reach a point where sensor technology and data-mining can be accessible and successful, flexible enough to be genuinely empowering, allowing users to control their own narratives. Is it improbable to dream of a feminist data future?

It may be improbable, but I offer that the writers of this study would not think it impossible. In this study I have emphasized continuities of desire that help to illuminate changes in technology. There are valid reasons to argue that the dissident representational potential does not reflect the actuality of application, but I would counter that there are important reasons to seize upon this dissident potential when we find it in order to develop the critical resources to intervene in those applications. We can see this alternate potential at

Brown in August of 2014. Online publication The Root credits lawyer & activist CJ

Lawrence with starting the #iftheygunnedmedown hashtag, which was quickly joined by hundreds if not thousands of other black Twitter activists and was itself covered by national media. Posters included the hashtag along with two images of themselves: one that would seem to fit right in with mainstream narratives of exceptional black criminality and another that would challenge it, often by appealing to the tropes of the respectability narrative, including a graduation or military portrait. They have recognized that selection is the machine of identity and enacted their own defiant collection of self to claim the reality of their difference. These hashtag activists are, in effect, calling upon a DuBoisian data aesthetic to reclaim a more complicated life narrative out the reductive tropes of media representation. Both of these pictures are me, they insist, and both are real. The story that this single data point would seem to tell is misleadingly coherent with standard narratives of black life.

Is the human, finally, data—is it a part of reality amenable to data representation and data-derived knowledge? We in literary studies are in the midst of asking a narrower, but just as vexing, version of that question: is literature data? An empiricist humanities seems newly urgent because it is has recently seemed more tenable: the scanning, encoding, and databasing of texts, literary and historical, has progressed to a point where modes of inquiry based on computation are more or less widely accessible. For some, this has created an empiricist imperative to study all of it. As Franco Moretti, quite famously, observes,

if we set today's canon of nineteenth-century British novels at two hundred titles (which is a very high figure), they would still be only about 0.5 percent of all published novels. And the other 99.5 percent? This is the question behind this article, and behind the larger idea of literary history that is now taking shape....the aim is not so much a change in the canon—the discovery of precursors to the canon or alternatives to it, to be restored to a prominent position—as a change in how we look at *all* of literary history: canonical and noncanonical: together. ("Slaughterhouse" 207-208)

This observation is enabled by the epistemology of data on multiple levels: some form of data has allowed him to quantify and compare the amount of literature from a given period that is typically studied with the amount of literature actually published during that period; an underlying idea of each data point as real and potentially meaningful has prompted his desire to know "all of literary history"; data's equation of reality with exhaustive collection has generated a sense of anxiety about the possibility of a reality that is being completely missed by conventional methods; finally, centuries worth of theorizing, desiring, and collecting data have led to the creation of technologies of text digitization that have created the perception that this is actually possible, if only we turn our professional efforts to the task of collecting the "enormous amount of empirical data [that] must be first put together" ("Network Theory" 102). Yet, alongside proposing that scholars reconfigure professional practice around building the data infrastructure to support methods of what he terms distant reading, he ends with a much more open-ended challenge: "Great chance, great challenge (what will knowledge indeed mean, if our archive becomes ten times larger, or a hundred), which calls for a maximum of methodological boldness: since no one knows what knowledge will mean in literary studies ten years from now, our best chance lies in the radical diversity of intellectual positions, and in their completely candid, outspoken competition?" ("Slaughterhouse" 227). Although Moretti is closely identified with distant reading methods, this closing declaration goes some way to clarifying that he does not call for, even if he himself typically practices, only one new method to deal with the challenge of increased knowledge of and access to the data of literature.

Distant reading is not the only avenue for the diversification of critical reading being advocated, and it is not the only instance of methodological dissatisfaction we can attribute

to an intellectual bend toward data epistemology. Rita Felski's argument for surface reading, for example, is based on an assertion very similar to Bacon's: that the typical practice of close reading has become in practice something much narrower, producing a form that she terms "critique." Critique, in Felski's view, relies on a preconceived narrative, a stale plot whose guaranteed revelation of ideological imbrication is never surprising. Methods that instead treat the text more like data, in her view, hold the potential to unsettle this expected critical narrative. Felski explains, "The text is no longer composed of strata and the critic does not burrow down but stands back. Instead of brushing past surface meanings in pursuit of hidden truth, she dwells in ironic wonder on these surface meanings, seeking to 'denaturalize' them through the mercilessness of her gaze." She is arguing, fundamentally, for a more Baconian stance. By striving for a great receptivity, postponing the expected interpretation projected by critique, we can see the textual world in its real strangeness. We will not be rendered un-critical, in her view, but our critical stance will be grounded on the idea of an observable, shared reality. Heather Love's "close but not deep" method of reading refuses arguments based on the "singularity and richness of individual texts" and makes a "concomitant refusal of the ethical charisma of the literary translator or messenger" (373). How similar this is to Adams and scientific history's late nineteenth-century attempt to redefine the discipline along the lines of "standardization, institutionalization, cooperation, objectivity" in order to deliver "history from the indiscriminate enthusiasms of the man of letters" (Jordy 3). By developing literary method that would take its "cue from observationbased social sciences" (Love 375), we can begin to grapple with a reality many now agree is objectively not human-centered, because these "fields have developed practices of close attention, but, because they rely on description rather than interpretation, they do not engage the metaphysical and humanist concerns of hermeneutics." In this proposal, a desire to

know and confront the real converges with an assumption that this real is best reached through assiduous observation converges. Both Felski and Love draw heavily on the assemblage theory of Bruno Latour, work that I have also drawn upon to describe the formal dynamics of a self and world represented as data. Assemblage thinking is, at least in part, a call to describe what is observable before offering interpretation, for example, for sociologists to rigorously describe the material assemblage of people, places, things, and ideas before proposing a theory of society. Put another way, it insists on first collecting data as a foundation of a shared vocabulary, sorely lacking in Latour's view of a world in which "dangerous extremists are using the very same argument of social construction to destroy hard-won evidence that could save our lives." Finally, and most concretely, N. Katherine Hayles has proposed that we must recognize the legitimacy of modes she calls hyper reading and machine reading, not to the exclusion of close reading but as a necessary complement to it in the age of the Web and the excessive data it purveys. Such a shift, she acknowledges, requires rethinking the ends and products of literary scholarship, and she asks, "What transformed disciplinary coherence might literary studies embrace?" (78). At the risk of oversimplifying, we might observe that all of these reading methods circle around a dissatisfaction with narrative models provoked by the idea of a superior access to reality offered through data.

What I want to close by suggesting is that we might see and seize upon these and others of the proliferating methods for reading, and teaching reading, as attempts to define literary scholarship and humanist studies not just in reaction to a cultural climate that accepts too credulously the allure of the quantitative but also in relationship to the awareness that the data of literature provokes, the reality of a vaster textual domain than one reader, one method, one algorithm, or any number of canons could ever account for. Important work

arises from engaging with this data as data. Important work also arises from troubling the perceived tenability of knowing "all" of literature through data by raising awareness of archival exclusions and the limits of encoding.

I submit that we may use the revised relationship to narrative demonstrated by Du Bois, Adams, Panunzio, Stein, and others examined in this study as models of critical engagement with data as we reconceptualize modes of research, reading, and interpretation. The motivations and appeals of the distant, surface, hyper, and machine reading methods that first emerged as an answer to this question may be many—contempt for or alternately dissatisfaction with the political efficacy of theory being a main one—but the argument for it, at root, is a re-iteration of Baconian empiricism. Data tells us a story: through these assembled data points, we will not only see literary history anew but finally see it. Not another history, the history. It is other than what we can intuit and better. Intrinsically, because it's real, and when recorded through data it escapes our prejudices and our imaginative limitations. As a second wave of data-enabled reading methods⁵ begins to emerge in response to the epistemological and ontological overreach of that, we might look to Du Bois's reminder that empiricism is never its own power, Adams's anxious reflection on his own change of status seeming like a devaluation of the human, Panunzio's emphasis on the contingencies of citizenship and agency in multiple national spaces, and Stein's uncompromising exhaustivity to check our fantasies. We might draw from them the critical energy to bolster our insistence on specificity and challenge any remaining complacency about the authority of the "single visionary." Our visions must be more collaborative if they are to address the realities of the literary data collection(s) we now have access to, surfacing difference, diversity, and surprise.

Notes

¹ This is the well-known and disconcerting catchphrase of the U.S. National Security Administration's communications surveillance program. For a detailed explanation of this program, see Greenwald.

² See Cheney-Lippold on algorithmic identity.

³ There are also ex-Quantified Selfers, who feel differently. See "Why This Blog."

⁴ See, for example, Conner.

⁵ To take just a small sampling, see the following examples: Buurma et al. 283 on middle-distance reading; Clement on differential reading; Mueller on scalable reading; Schmitt on denotative reading.

WORKS CITED

- Abreu, Amelia. "Quantify Everything: A Dream of a Feminist Data Future." *Model View Culture*. N.p., 24 Feb. 2014. Web. 9 July 2015.
- Accardi, Bernard. "Empiricism and the Epistemological Rhetoric of *The Education of Henry Adams*." Essays in Literature 23.2 (1996): 251–276. Web. 4 June 2013.
- Adams, Henry. The Degradation of the Democratic Dogma. New York: Macmillan, 1919. HathiTrust. Web. 2 Aug. 2013.
- ---. The Education of Henry Adams. New York: Library of America, 1990. Print.
- ---. History of the United States of America. Vol. 1. New York: C. Scribner & Sons, 1921. HathiTrust. Web. 2 Aug. 2013.
- Addams, Jane. Twenty Years at Hull-House, With Autobiographical Notes. New York, 1911. HathiTrust. Web. 15 Mar. 2012.
- Ahmed, Sara. Strange Encounters: Embodied Others in Post-coloniality. London: Routledge, 2000. Print.
- Anderson, Amanda. The Powers of Distance: Cosmopolitanism and the Cultivation of Detachment. Princeton, NJ: Princeton University Press, 2001. Print.
- Anderson, Benedict. Imagined Communities. 2nd ed. London: Verso, 1991. Print.
- Anderson, Sherwood. Winesburg, Ohio. New York: Modern Library, 1919. HathiTrust. Web. 8 Aug. 2014.
- Antin, Mary. They Who Knock at Our Gates; A Complete Gospel of Immigration. New York: Houghton Mifflin, 1914. HathiTrust. Web. 9 Aug. 2014.
- ---. The Promised Land. 1912. New York: Penguin, 2012. Print.
- Appiah, Kwame. "The Uncompleted Argument: "Du Bois and the Illusion of Race." *Critical Inquiry* 12.1 (1985): 21-37. Web. *JSTOR*. 3 Jan. 2013.
- Bacon, Francis. Novum Organum. Trans. Joseph Devey. New York: P.F. Collier, 1902. Print.
- Banta, Martha. "Being a Begonia in a Man's World." New Essays on The Education of Henry Adams. Ed. John Carlos Rowe. Cambridge: Cambridge University Press, 1996. 49-86. Print.
- ---. Taylored Lives: Narrative Productions in the Age of Taylor, Veblen, and Ford. Chicago: University of Chicago Press, 1993. Print.
- Bay, Mia. "The World Was Thinking Wrong About Race: *The Philadelphia Negro* and Nineteenth-Century Science." W.E.B. Du Bois, Race, and the City: The Philadelphia Negro and Its Legacy. Ed. Michael B. Katz and Thomas Sugrue. Philadelphia: University of Pennsylvania Press, 1998. 40-59. Print.
- Beam, Christopher. "#Posterity." Slate. The Slate Group, 20 Apr. 2010. Web. 11 Sept. 2014. Beer, Gillian. "Translation or Transformation? The Relations of Literature and Science." Notes and Records of the Royal Society of London 44.1 (1990): 81–99. Web. 1 June 2015.
- Bennett, Jane. Vibrant Matter: A Political Ecology of Things. Durham: Duke University Press, 2010. Print.

- Blackmer, Corrine. "African Masks and the Arts of Passing in Gertrude Stein's 'Melanctha' and Nella Larsen's 'Passing." *Journal of the History of Sexuality* 4.2 (1993): 230-263. *JSTOR*. Web. 22 Feb. 2015.
- Blumer, Herbert. *An Appraisal of Thomas and Znaniecki's* The Polish Peasant In Europe and America. New York: Social Science Research Council, 1939. Print.
- Box, George E. P., and Norman Richard Draper. *Empirical Model-Building and Response Surfaces*. New York: Wiley, 1987. Print.
- Burich, Keith. "Our Power Is Always Running Ahead of Our Mind': Henry Adams's Phases of History." New England Quarterly 62.2 (1989): 163-186. JSTOR. Web. 4 Aug. 2013.
- Buurma, Rachel Sagner, Anna Tione Levine, and Richard Li. "The Early Novels Database and Undergraduate Research: A Case Study." *Past or Portal?: Enhancing Undergraduate Learning Through Special Collections*. Chicago: ACRL, 2012. 279-282. Print.
- Cappetti, Carla. Writing Chicago: Modernism, Ethnography, and the Novel. New York: Columbia University Press, 1993. Print.
- Cecire, Natalia. A Sense of the Real: Experimental Writing and the Sciences, 1879-1946. Diss. University of California, Berkeley. 2010. Web. 12 Feb. 2015.
- Cheney-Lippold, John. "A New Algorithmic Identity Soft Biopolitics and the Modulation of Control." *Theory, Culture & Society* 28.6 (2011): 164–181. Web. 8 July 2015.
- Clement, Tanya. "Text Analysis, Data Mining, and Visualizations in Literary Scholarship." Literary Studies in the Digital Age. Ed. Kenneth M. Price and Ray Siemens. Modern Language Association of America, 2013. N. pag. Web. 23 June 2015.
- Chun, Wendy H. K. Programmed Visions: Software and Memory. Cambridge: MIT Press, 2011.

 Print.
- Colacurcio, Michael. "The Dynamo and the Angelic Doctor: The Bias of Henry Adams' Medievalism." *American Quarterly* 17.4 (1965): 696–712. Web. 9 July 2015.
- Colebrook, Claire. Gilles Deleuze. London: Routledge, 2002. Print.
- Comte, Auguste. *The Positive Philosophy of Auguste Comte.* Trans. Harriet Martineau. 3 vols. London: Bell, 1896. *HathiTrust.* Web. 7 July 2015.
- Connor, Maureen. "Heartbreak and the Quantified Selfie." *New York Magazine*. New York Media LLC., 2 Dec. 2013. Web. 9 July 2015.
- Coser, Lewis A. Masters of Sociological Thought: Ideas in Historical and Social Context. New York: Harcourt Brace Jovanovich, 1971. Print.
- Czitrom, Daniel J. Media and the American Mind: From Morse to McLuhan. Chapel Hill: University of North Carolina Press, 1982. Print.
- DeKoven, Marianne. Rich and Strange: Gender, History, Modernism. Princeton, NJ: Princeton University Press, 1991. Print.
- Daston, Lorraine and Peter Galison. Objectivity. New York: Zone, 2007. Print.
- Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press, 1987. Print.
- Doyle, Laura. "The Flat, the Round, and Gertrude Stein: Race and the Shape of Modern(ist) History." *Modernism/Modernity* 7.2 (2000): 249-271. *Project Muse.* Web. 28 May 2015.
- Du Bois, W. E. B. The Autobiography of W. E. B. Du Bois: A Soliloquy on Viewing My Life From the Last Decade of Its First Century. 1st ed. New York: International Publishers, 1968. Print.
- ---. Darkwater: Voices from Within the Veil. New York: Oxford UP, 2007. Print.
- ---. Dusk of Dawn: An Essay Toward an Autobiography of a Race Concept. First edition. New York: Harcourt, Brace & Co., 1940. Print.
- ---. "Sociology Hesitant." boundary 2 27.3 (2000): 37-44. Duke Journals. Web. 18 Nov. 2012.

- ---. The Souls of Black Folk. 1903. New York: Library of America, 2009. Print.
- ---. The Philadelphia Negro: A Social Study. New York: Oxford University Press, 2007. Print.
- Eakin, Paul John. "Narrative and Chronology in the New Model Autobiographer." *Studies in Autobiography*. Ed. James Olney. New York: Oxford University Press, 1988. 32-41. Print.
- Eliot, T. S. Rev. of *The Education of Henry Adams*, by Henry Adams. *Major Writers of America*. Ed. Perry Miller. New York: Harcourt, Brace & World, 1962. 793-795. Print.
- Elliott, Michael A. *The Culture Concept: Writing and Difference in the Age of Realism.* Minneapolis: University of Minnesota Press, 2002. Print.
- English, Daylanne K. Unnatural Selections: Eugenics in American Modernism and the Harlem Renaissance. Chapel Hill: University of North Carolina Press, 2004. Print.
- Esteve, Mary. The Aesthetics and Politics of the Crowd in American Literature. Cambridge, UK: Cambridge University Press, 2003. Print.
- Farland, Maria. "Gertrude Stein's Brain Work." *American Literature* 76.1 (2004): 117-148. Print.
- Fassler, Joe. "Can the Computers at Narrative Science Replace Paid Writers?" *The Atlantic* 12 Apr. 2012. Web. 6 July 2013.
- Felski, Rita. "Critique and the Hermeneutics of Suspicion." M/C Journal 15.1 (2011): n. pag. Web. 9 July 2015.
- Field, Emily Donaldson. "The Souls of Henry Adams: Du Boisian Aspects of The Education." *Arizona Quarterly: A Journal of American Literature, Culture, and Theory* 67.3 (2011): 61–90. Web. 9 July 2015.
- Fleissner, Jennifer. "The Ordering Power of Disorder: Henry Adams and the Return of the Darwinian Era." *American Literature* 84.1 (2012): 31-60. *Duke Journals*. Web. 21 Jan. 2013.
- ---. Women, Compulsion, Modernity: The Moment of American Naturalism. Chicago: University of Chicago, 2004. Print.
- Floridi, Luciano. "The Language of Information." *Information: A Very Short Introduction*. Oxford: Oxford University Press, 2010. *Very Short Introductions Online*. Web. 25 June 2015.
- Friedman, Susan Stanford. "Planetarity: Musing Modernist Studies." *Modernism/modernity* 17.3 (2010): 471–499. Web. 1 June 2015.
- Fuller-Coursey, Freda J. "Henry Adams, Scientific Historian: Even Into Chaos" *European Journal of American Culture* 22.2 (2003): 103–124. Web. 18 Aug. 2013.
- Jacobson, Matthew Frye. Barbarian Virtues: The United States Encounters Foreign Peoples At Home and Abroad, 1876-1917. New York: Hill and Wang, 2000. Print.
- Jordy, William H. Henry Adams: Scientific Historian. New Haven: Yale University Press, 1952. Print.
- Gerber, David A. American Immigration: A Very Short Introduction. Oxford: Oxford University Press, 2011. Print.
- Gitelman, Lisa and Virginia Jackson. "Introduction." Raw Data is an Oxymoron. Ed. Lisa Gitelman. Cambridge, MA: Massachusetts Institute of Technology University Press, 2013. 15-40. Print.
- Goodson, Ivor. Developing Narrative Theory: Life Histories and Personal Representation. London: Routledge, 2013. Print.
- Greenwald, Glenn. "The Crux of the NSA Story in One Phrase: 'Collect It All." *Guardian.com.* 15 July 2013. Web. 9 July 2015.

- Harvey, David. The Condition of Postmodernity. Oxford: Blackwell, 1989. Print.
- Haselstein, Ulla. "A New Kind of Realism: Flaubert's *Trois Contes* and Stein's *Three Lives.*" *Comparative Literature* 61.4 (2009): 388–399. Web. *Duke Journals*. 5 July 2015.
- Hayles, N. Katherine. "How We Read: Close, Hyper, Machine." *ADE Bulletin* 150 (2011): 62-79. Web. 28 June 2015.
- ---. How We Think: Digital Media and Contemporary Technogenesis. Chicago: The University of Chicago Press, 2012. Print.
- ---. "Information or Noise? Economy of Explanation in Barthes's S/Z and Shannon's Information Theory." One Culture: Essays in Science and Literature. Ed. George Levine. Madison, WI: University of Wisconsin Press, 1987. Print.
- ---. "Narrative and Database: Natural Symbionts." *PMLA* 122.5 (2007): 1603–1608. Web. 10 Nov. 2014.
- Harker, James. "Misperceiving Virginia Woolf." *Journal of Modern Literature* 34.2 (2011): 1–21. Web. 8 Dec. 2014.
- Herbert, Shannon. *The Aesthetics of Information: Contemporary Facts and Fiction, 1963-2007.* Diss. University of Chicago, 2011. Web. 28 June 2013.
- Hey, Anthony J. G. *The Fourth Paradigm: Data-intensive Scientific Discovery.* Redmond, WA: Microsoft Research, 2009. Web. 12 July 2013.
- Higham, John. Strangers in the Land: Patterns of American Nativism, 1860-1925. 2nd ed. New Brunswick, NJ: Rutgers University Press, 2002. Print.
- Hirsch, Marianne. "The Novel of Formation as Genre." Genre 12.3 (1979): 293-312. Print.
- Hoffman, Michael J. *The Development of Abstractionism in the Writings of Gertrude Stein.* Philadelphia: University of Pennsylvania Press, 1965. Print.
- Holt, Hamilton, ed. *The Life Stories of Undistinguished Americans, As Told by Themselves.* 2nd ed. Pref. Werner Sollors. New York: Routledge, 1990. Print.
- Holton, Adalaine. "To "tell again in many ways": Iteration and Translation in *The Souls of Black Folk*." *Arizona Quarterly: A Journal of American Literature, Culture, and Theory* 66.3 (2010): 23-43. *Project MUSE*. Web. 1 November 2012.
- Horowitz, Howard. "The Education and the Salvation of History." New Essays On the Education of Henry Adams. Rowe, John Carlos, ed. Cambridge: Cambridge University Press, 1996. 115-156. Print.
- Hovey, Jaime. "Sapphic Primitivism in Gertrude Stein's *QED*." *Modern Fiction Studies* 42.3 (1996): 547-568. *Project Muse*. Web. 3 Mar. 2015.
- Hyvärinen, Matti, ed. Beyond Narrative Coherence. Amsterdam: John Benjamins, 2010. Print.
- Hutcheon, Linda. A Poetics of Postmodernism: History, Theory, Fiction. London: Routledge, 1988. Print.
- Huyssen, Andreas. After the Great Divide: Modernism, Mass Culture, Postmodernism. Bloomington: Indiana University Press, 1986. Print.
- Iggers, Georg. "The Image of Ranke in American and German Historical Thought." *History and Theory* 2:1 (1962): 17-40. *JSTOR*. Web. 3 Aug. 2013.
- Imbert, Michel. "The Grammar of Sciences in The Education of Henry Adams." Science and American Literature in the 20th and 21st Centuries: From Henry Adams to John Adams. Ed. Claire Maniez, Ronan Ludot-Vlasak, and Frederic Dumas. Newcastle upon Tyne, England: Cambridge Scholars, 2012. 3-17. Print.
- Jordy, William H. Henry Adams: Scientific Historian. New Haven: Yale University Press, 1952. Print.
- Katz, Leon. "Weininger and *The Making of Americans*." Twentieth Century Literature 24.1 (1978): 8–26. Web. 5 July 2015.

- Kaplan, Amy. *The Social Construction of American Realism*. Chicago: University of Chicago Press, 1988. Print.
- Karafilis, Maria. "The Jewish Ghetto and the Americanization of Space in Mary Antin and Her Contemporaries." *American Literary Realism* 42.2 (2010): 129-150. *Project MUSE*. Web. 7 July 2014.
- Katz, Michael B. and Thomas Sugrue, eds. W.E.B. Du Bois, Race, and the City: The Philadelphia Negro and Its Legacy. Philadelphia: University of Pennsylvania Press, 1998. Print.
- Kazin, Alfred. "History and Henry Adams." New York Review of Books 23 October 1969. NYbooks.com. Web. 20 May 2013.
- Kittler, Friedrich A. *Discourse Networks 1800/1900*. Trans. Michael Meteer and Chris Cullens. Foreword by David Wellbery. Stanford, CA: Stanford University Press, 1990. Print.
- Laplace, Pierre Simon. *Essay on Probabilities*. MacTutor History of Mathematics Archive. Ed. John J. O'Connor and Edmund F. Robertson. University of St. Andrews, Aug. 2007. Web. 18 June 2013.
- Lamothe, Daphne. *Inventing the New Negro: Narrative, Culture, and Ethnography.* Philadelphia: University of Pennsylvania Press, 2008. Print.
- Lejeune, Phillipe. *On Autobiography*. Ed. Paul John Eakin. Minneapolis: University of Minnesota Press, 1989. Print.
- Lenoir, Timothy. "Foreword." Becoming Beside Ourselves: The Alphabet, Ghosts, And Distributed Human Being. Brian Rotman. Durham, NC: Duke University Press, 2008. ix-xxix. Print.
- Leys Stepan, Nancy and Sander L. Gilman. "Appropriating the Idioms of Science: The Rejection of Scientific Racism." *The Bounds of Race: Perspectives on Hegemony and Resistance*. Ed. Dominick LaCapra. Ithaca, NY: Cornell University Press, 1991. Print.
- Love, Heather. "Close but Not Deep: Literary Ethics and the Descriptive Turn." New Literary History 41.2 (2010): 371–391. Web. 9 July 2015.
- Lukács, György. "Narrate or Describe?" Writer & Critic, and Other Essays. New York: Grosset & Dunlap, 1971. 110-148. Print.
- Lyotard, Jean-François. *The Postmodern Condition: A Report on Knowledge*. Trans. Geoff Bennington and Brian Massumi. Minneapolis: University of Minnesota Press, 1984. Print.
- Manovich, Lev. The Language of New Media. Cambridge, MA: MIT Press, 2002. Print.
- Matz, Jesse. Literary Impressionism and Modernist Aesthetics. New York: Cambridge University Press, 2001. Print.
- Mao, Douglas, and Rebecca L. Walkowitz. *Bad Modernisms*. Durham: Duke University Press, 2006. Print.
- Meyer, Steven. Irresistible Dictation: Gertrude Stein and the Correlations of Writing and Science. Stanford, Calif.: Stanford University Press, 2001. Print.
- Michaels, Walter Benn. Our America: Nativism, Modernism, and Pluralism. Durham: Duke University Press, 1995. Print.
- Miller, Joshua L. "The Immigrant Novel." *The American Novel, 1870-1940*. Ed. Priscilla Wald and Michael A. Elliott. New York: Oxford University Press, 2014. Print.
- Mizruchi, Susan. "Neighbors, Strangers, Corpses: Death and Sympathy in the Early Writings of W.E.B. Du Bois." *Centuries' Ends, Narrative Means.* Robert D. Newman, ed. Stanford, CA.: Stanford UP, 1996. Print.
- ---. The Science of Sacrifice: American Literature and Modern Social Theory. Princeton: Princeton University Press, 1998. Print.

- Moretti, Franco. "Network Theory, Plot Analysis." New Left Review 68 (2011): 81–102. Print. ---. "The Slaughterhouse of Literature." MLQ: Modern Language Quarterly 61.1 (2000): 207–227. Web. 4 Apr. 2015.
- Mostern, Kenneth. "Three Theories of the Race of W.E.B. Du Bois." *Cultural Critique* 34 (1996): 27-63. Web. *JSTOR*. 1 Dec. 2012.
- Mueller, Martin. "Shakespeare His Contemporaries: Collaborative Curation and Exploration of Early Modern Drama in a Digital Environment." 8.3 (2014): n. pag. Web. 23 June 2015.
- Muhammad, Khalil Gibran. The Condemnation of Blackness: Race, Crime, and the Making of Modern Urban America. Cambridge, MA: Harvard UP, 2010. Print.
- Nadel, Ira. "Introduction." *The Education of Henry Adams*. Oxford: Oxford University Press, 1999. Print.
- Nicholls, Peter. *Modernisms: A Literary Guide.* 2nd ed. Basingstoke: Palgrave Macmillan, 2009. Print.
- North, Michael. *The Dialect of Modernism: Race, Language, and Twentieth-century Literature.* New York: Oxford University Press, 1994. Print.
- Novick, Peter. That Noble Dream: The "Objectivity Question" and the American Historical Profession. Cambridge: Cambridge University Press, 1988. Print.
- Nowicki, April. "Machines Have Enough Data to Understand the Real World." *Street Fight.* N.p., 5 Mar. 2015. Web. 9 July 2015.
- Olson, Liesl. *Modernism and the Ordinary*. Oxford ; New York: Oxford University Press, 2009. Web. 2 June 2015.
- Olson, Eric T. "Personal Identity." *The Stanford Encyclopedia of Philosophy* Ed. Edward N. Zalta. 9 July 2015. Web. 6 Aug. 2015.
- Oreskes, Naomi. "Objectivity or Heroism? On the Invisibility of Women in Science." Osiris 11 (1996): 87-113. *ISTOR*. Web.
- Panunzio, Constantine M. The Soul of an Immigrant. New York: Macmillan, 1921. Print.
- Park, Robert E. "The City: Suggestions for the Investigation of Human Behavior in the City Environment." *American Journal of Sociology* 20.5 (1915): 577–612. Web. 7 July 2014.
- ---. Park, Robert E. "News as a Form of Knowledge: A Chapter in the Sociology of Knowledge." *American Journal of Sociology* 45.5 (1940): 669–686. Web. 7 July 2014.
- Payne, Rodger. The Self and the Sacred: Conversion and Autobiography in Early American Protestantism. Knoxville: U of Tennessee P, 1998. Print.
- Perelman, Bob. *The Trouble With Genius: Reading Pound, Joyce, Stein, and Zukofsky.* Berkeley: University of California Press, 1994. Print.
- Pizer, Donald. *The Theory and Practice of American Naturalism*. Carbondale: Southern Illinois University Press, 1993. Print.
- Poovey, Mary. A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society. Chicago: University of Chicago Press, 1998. Print.
- ---. "The Limits of the Universal Knowledge Project: British India and the East Indiamen." Critical Inquiry 31.1 (Autumn 2004): 183-202. JSTOR. Web. 24 June 2013.
- Porter, Carolyn. Seeing and Being: the Plight of the Participant Observer In Emerson, James, Adams, And Faulkner. Middletown, Conn.: Wesleyan University Press, 1981. Print.
- Porter, Eric. The Problem of the Future World: W.E.B. Du Bois and the Race Concept at Midcentury. Durham, NC: Duke UP, 2010. Print.
- Porter, Theodore. *The Rise of Statistical Thinking 1820-1900*. Princeton: Princeton University Press, 1986. Print.

- Powers, Richard. "In the Lakehouse of Language: An Interview with Richard Powers." With Jan D. Kucharzewski. *Propositions About Life: Re-engaging Literature and Science*. Heidelberg: Winter, 2011. 455-61. Print.
- Posnock, Ross. Color & Culture: Black Writers And the Making of the Modern Intellectual. Cambridge, MA: Harvard University Press, 1998. Print.
- Pressman, Jessica. *Digital Modernism: Making It New in New Media*. New York: Oxford University Press, 2014. Print.
- Quillian, Lincoln. "Does Unconscious Racism Exist?" *Social Psychology Quarterly* 71.1 (2008): 6–11. Web. 7 Aug. 2015.
- Raine, Anne. "Science, Nature Work, and the Kinaesthetic Body in Cather and Stein." American Literature 80.4 (2008): 799-830. Print.
- Rampersad, Arnold. *The Art and Imagination of W.E B. Du Bois.* Cambridge, MA: Harvard University Press, 1976. Print.
- Reed, Jr., Adolph L. W.E.B. Du Bois and American Political Thought. New York: Oxford University Press, 1997, Print.
- "Roosevelt bars the hyphenated." New York Times 13 Oct. 1915. N.pag. Web. 26 June 2015.
- Rosenberg, Daniel. "Data Before the Fact." Raw Data is an Oxymoron. Ed. Lisa Gitelman. Cambridge, MA: Massachusetts Institute of Technology University Press, 2013. 15-40. Print.
- Ross, Dorothy. *The Origins of American Social Science*. Cambridge: Cambridge University Press, 1991. Print.
- Rotman, Brian. Becoming Beside Ourselves: The Alphabet, Ghosts, and Distributed Human Being. Durham: Duke University Press, 2008. Print.
- Rowe, John Carlos. Henry Adams and Henry James: the Emergence of a Modern Consciousness. Ithaca, NY: Cornell University Press, 1976. Print.
- Ruddick, Lisa Cole. Reading Gertrude Stein: Body, Text, Gnosis. Ithaca: Cornell University Press, 1990. Print.
- Saldívar-Hull, Sonia. "Wrestling Your Ally: Stein, Racism, and Feminist Critical Practice." *Women's Writing in Exile*. Ed. Mary Lynn Broe and Angela Ingram. Chapel Hill: University of North Carolina Press, 1989. 181-98. Print.
- Sayre, Robert F. The Examined Self: Benjamin Franklin, Henry Adams, Henry James. Princeton, N.J.: Princeton University Press, 1964. Print.
- Schmitt, Cannon. "Tidal Conrad (Literally)." Victorian Studies 55.1 (2012): 7–29. Web. 9 Dec. 2014.
- Schöch, Christof. "Big? Smart? Clean? Messy? Data in the Humanities." *Journal of Digital Humanities*. N.pag., 22 Nov. 2013. Web. 20 Jan. 2015.
- Simmel, Georg. *The Philosophy of Money*. Trans. Tom Bottomore and David Frisby. New York: Routledge, 2011. Print.
- Slaughter, Joseph. Human Rights, Inc. New York: Fordham University Press, 2007. Print.
- Sollors, Werner. Ethnic Modernism. Cambridge, MA: Harvard University Press, 2008. Print.
- Slosson, Edwin. "Introduction." *The Life Stories of Undistinguished Americans, As Told by Themselves.* Ed. Hamilton Holt. 2nd ed. New York: Routledge, 1990. Print.
- Smith, Sidonie, and Julia Watson. Reading Autobiography: A Guide for Interpreting Life Narratives. 2nd ed. Minneapolis: University of Minnesota Press, 2010. Print.
- Stein, Gertrude. The Autobiography of Alice B. Toklas. 1933. New York: Vintage, 1990. Print.
- ---. "Composition as Explanation." *Gertrude Stein: Selections*. Ed. Joan Retallack. Berkeley: University of California Press, 2008. Print.
- ---. Lectures in America. New York: Modern Library, 1935. Print.

- ---. "A Transatlantic Interview." Ed. Walter Sutton. A Primer for the Gradual Understanding of Gertrude Stein. Ed. Robert Bartlett Haas. Los Angeles: Black Sparrow Press, 1971. 15-35. Print.
- ---. Three Lives. Ed. Linda Wagner-Martin. Boston: Bedford/St. Martin's, 2000. Print.
- Stephens, Paul. "Reading at It': Gertrude Stein, Information Overload, and the Makings of Americanitis." *Twentieth Century Literature* 59.1 (2013): 126–156,190. Web. 5 July 2015.
- Sutherland, Donald. "From Gertrude Stein: A Biography of Her Work." Stein, Gertrude, and Marianne DeKoven, ed. Three Lives: And, Q.E.D.: Authoritative Texts, Contexts, Criticism. New York: W.W. Norton, 2006. 263-284. Print.
- Taylor, Matthew A. *Universes Without Us: Posthuman Cosmologies In American Literature.* Minneapolis: University of Minnesota Press, 2013. Print.
- Thomas, William Isaac, and Robert Ezra Park. Old World Traits Transplanted. New York: Harper & Brothers, 1921. Print.
- Thomas, William Isaac, and Florian Znaniecki. *The Polish Peasant in Europe and America*. 2nd ed. New York: A. A. Knopf, 1927. Print.
- Tolentino, Cynthia H. *America's Experts: Race and the Fictions of Sociology.* Minneapolis: University of Minnesota Press, 2009. Print.
- van Rijsbergen, C. J. Information Retrieval. 2nd ed. London: Butterworths, 1979. Print.
- Wagers, Kelley. "Race, Nation, and Historical (Re)Form in *The Souls of Black Folk.*" Arizona Quarterly 64.1 (2008): 77-108. Project Muse. Web. 14 Oct. 2012.
- Wald, Priscilla. "Communicable Americanism: Contagion, Geographic Fictions, and the Sociological Legacy of Robert E. Park." *American Literary History* 14.4 (2002): 653–685. Web. 7 June 2015.
- ---. Constituting Americans: Cultural Anxiety and Narrative Form. Durham, NC: Duke University Press, 1995. Print.
- "Why This Blog." The Unquantified Self. N.p., n.d. Web. 9 July 2015.
- Wilbanks, John. "I Have Seen the Paradigm Shift, and It Is Us." *The Fourth Paradigm: Data-intensive Scientific Discovery.* Ed. Anthony Hey and J. G. Redmond, WA: Microsoft Research, 2009. 209-214. Web. 12 July 2013.
- Wilson, Sarah. Melting-pot Modernism. Ithaca: Cornell University Press, 2010. Print.
- Wollaeger, Mark A. *Modernism, Media, and Propaganda British Narrative from 1900 to 1945*. Princeton, N.J.: Princeton University Press, 2007. Web. 18 Dec. 2014.
- Wolf, Gary. "The Data-Driven Life." The New York Times 28 Apr. 2010. Web. 13 June 2015.
- Woolf, Virginia. "Modern Fiction." *Common Reader*. University of Adelaide Ebooks. 22 Dec. 2014. Web. 3 Mar. 2015.
- Wynter, Sylvia. "No Humans Involved': An Open Letter to My Colleagues." Forum N.H.I.: Knowledge for the 21st Century 1.1 (1994): 42-73. Print.
- Zamir, Shamoon. Dark Voices: W.E.B. Du Bois and American Thought 1888-1903. Chicago: U of Chicago Press, 1995. Print.
- ---. "The Souls of Black Folk: Thought and Afterthought." The Cambridge Companion to W.E.B. Du Bois. Ed. Shamoon Zamir. Cambridge: Cambridge UP, 2008. Print.