

# AUTHORING ROMANTIC SCIENCE: A.R. LURIA'S CASE STUDIES AND THE THERAPY OF LITERARY NONFICTION

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## ABSTRACT

Based on a literary model, the renowned case studies of Soviet neurologist A.R. Luria suggest another source for the recent rise of literary nonfiction, which also has roots in life writing, the personal essay, and in literary journalism (or “creative nonfiction”). In this rhizomatic genealogy, literary nonfiction is conceived together with the editorship of the scientific investigator who produces narrative case studies. Luria’s “Romantic science” embodies these clinical and literary parallels. The importance assigned to narratives and “authoring” in contemporary study of the mind implies that literary nonfiction may also have a strong therapeutic dimension.

KEY WORDS: Creative nonfiction, medicine and literature, systems theory.

## RESUMEN

Basado en un modelo literario, los famosos estudios de casos del neurólogo soviético A.R. Luria se manifiestan como otra fuente del auge en las últimas décadas de la escritura denominada “no-ficción literaria”, que además hunde sus raíces en los diversos géneros biográficos y autobiográficos, en el ensayo personal, y en el periodismo literario (o “no-ficción creativa”). En esta genealogía rizomática, la no-ficción literaria ha de explicarse junto al trabajo editorial del investigador científico que escribe la narración de los estudios de casos. El concepto de “ciencia romántica” de Luria incorpora este paralelismo entre lo literario y lo clínico. La importancia atribuida a las narraciones y “autoría” en el estudio contemporáneo de la mente implica que la no-ficción literaria puede además poseer una poderosa dimensión terapéutica.

PALABRAS CLAVE: ensayo creativo, medicina y literatura, teoría de sistemas.

Like all interdisciplinary projects, the study of science and literature must begin with large assumptions about how two different discourses can be interrelated. At least since Matthew Arnold’s 1882 essay “Science and Literature,” and especially since C.P. Snow’s 1950’s lectures “The Two Cultures,” science and litera-



ture have been seen as intellectual opposites: “science” representing the rationalistic worldview, and “literature” standing for humanism generally. In this scheme, literature seems capable of interacting with science only reactively, absorbing and commenting on each successive “paradigm shift” in science and technology. A number of influential literary theories begin with this kind of one-way interrelationship between science and literature. These movements include Foucauldian epistemology and “archeology,” New Historicism, and some versions of cultural studies and media theory. A second possibility, one more optimistic about the creative power of literature, is to reverse this pattern, and to investigate how literature has influenced the imagination of science: for example, how the science fiction of time travel has presciently suggested certain investigations in astrophysics (Nahin).

However, both of these interdisciplinary conceptions may be equally reductive. There is at least a third, more intriguing possibility, one that invites comparison with more contemporary postmodern concepts about complex systems: the relationship between science and literature may best be understood as chaotic, reciprocal, and autopoietic—in short, science and literature may be bound up in a relationship of continual cultural feedback. This third approach is thus affiliated with various “systems” approaches in literary theory.<sup>1</sup> This article will explore one case where literature and science have exhibited such coevolution: the pioneering neurological case studies of A.R. Luria in science, and the advent of “literary non-fiction” in literature. The historical relationship between these seemingly very different generic types is a complex one of mutual influence and feedback.

Such a contemporary understanding of phenomena also parallels the scientific method and philosophy of A.R. Luria. Luria’s brand of what he called “Romantic” science, as opposed to reductionist “classical” science, implies understanding the whole of a phenomenon in all its richness, rather than breaking it down into its constituent parts. Nowhere is Luria’s methodology of Romantic science more clear than in his two case studies: one of the mnemonist S.V. Sherashevsky (*The Mind of a Mnemonist*, trans. 1968), and one of Zassetsky, a World War II brain-injured soldier (*The Man with a Shattered World*, trans. 1972). Each of the two case studies is based on decades of work with the patients, and the results imply that the concept and practice of “authoring” is essential both to the success of the study and to the success of the patient in dealing with significant cognitive challenges. But “authoring” in a fully literary sense is also important here: the term for Luria’s science is derived from Romantic writers such as Goethe, and Luria also cites Walter Pater’s *Imaginary Portraits* as a literary model for his case studies. The psychologist Alex Kozulin, an important contemporary interpreter for the West of the heritage of Russian psychology, describes this “authoring” as a methodology:

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<sup>1</sup> Ultimately inspired by the various formalist schools of Russia and Eastern Europe, these systems-theoretical approaches to literature include the Empirical Study of Literature (Schmidt), polysystems theory (Even-Zohar), and, more recently, the social systems theory of art (Luhmann).

Human thoughts, acts, and intentions can be viewed as authoring, and the emerging self can be viewed as an artifact analogous to the author of the literary work. As language is potential literature, human conduct can also be conceived of as a potential text. At the same time, if we take into account the paramount position of the production of texts among the human psychological processes, its study can be taken as a paradigm for the study of other psychological processes. [...] In both cases, the boundary between “artificial” (art and literature) and “natural” (individual psychology) is removed. Literary work becomes a model for the reconstruction of the emergence of the human self, while specific rules of literary discourse inform our understanding of the narrative thinking of the individual [...]. (136)<sup>2</sup>

Following in Luria’s footsteps, Kozulin’s argument is for a unified approach to psychology and literature where both illuminate the other, and neither is necessarily privileged.

Luria’s “authoring” of case studies also resonates with the contemporary rise of literary nonfiction. Reading across the various scales of this recent history of literary nonfiction reveals a complex, fractal pattern of literary interrelationships very different from the unidirectional patterns of “influence” that are often assumed to be the norm in the historical study of literary cultures and genres. The connection to the scientific case study also elucidates an important aspect of literary nonfiction that otherwise seems to be a unique and unexpected development: namely, the persistent aims of literary nonfiction not merely to *describe*, but to *isolate*, as case studies seek to do, the “contributing factors” behind the subject or situation at hand. To recall Luria’s clinical milieu, a central conceptual mode of literary nonfiction is “diagnosis,” and one of literary nonfiction’s central assumptions is that understanding, if not “healing,” is an eminent final possibility.

While the case study is thus, in my view, a vital “factor” in a full understanding of literary nonfiction, it is not the only one. I outline three other important precursors of literary nonfiction in the next section.

## 1. GENEALOGIES OF LITERARY NONFICTION

There are at least three streams of literary history that have contributed to the recent advent of “literary nonfiction.” Previously, these kinds of literature have been thought of as entirely separate genres, other than belonging under the (remarkably broad) rubric of “nonfiction.” The complex, rhizomatic nature of these originary streams can also be recognized in the diverse attempts to give a name to “literary nonfiction,” itself an ad hoc appellation that may also fall by the wayside,

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<sup>2</sup> Cited in this passage are Alex KOZULIN, “Life as Authoring: A Humanistic Tradition in Russian Psychology,” *New Ideas in Psychology* 9 (1991): 335-51; and Jerome S. BRUNER, *Actual Minds, Possible Worlds* (Cambridge: Harvard UP, 1986).



though it currently stands as the least exclusive term for the movement (the problem of terminology will be discussed further below). The three best-known historical precursors of literary nonfiction can be arranged historically as follows: biographical and autobiographical writing; the personal essay; and literary journalism.

The first stream can be grouped under the general category of “life writing.” Perhaps the oldest kind of nonfiction, it manifests itself as early as ancient historical tales about “great men,” and is represented most memorably in the classical era by Plutarch’s *Lives*. In the Middle Ages, the biography also took the form of the *geste* (or *res gestae*, the “deeds” of famous figures) and of hagiography—the “saint’s life.” The innovation of turning the biographical focus upon the author’s own life occurred much later: though there are a few significant instances of autobiography in the classical and medieval eras, these often were written with extremely political or religious purposes in mind (as in St. Augustine’s *Confessions*). With Marco Polo’s fourteenth-century *Travels*, however, this begins to change, and the Renaissance ushered in a distinctly different autobiographical literature that could also, as for Marco Polo, overlap with travel literature—for the self had become a new world of its own to be explored. The twentieth-century boom of the memoir is another part of the life-writing stream, and the continued popularity of other casual prose forms—including the letter, the postcard, diaries and journals, anecdotes, and humor writing—also can be loosely grouped with “life writing,” and their mundane, detail-oriented informality is apropos of much of literary nonfiction now.

The second stream originates in the Renaissance with the *Essays* (*Essais*, “attempts, trials”) of Montaigne (1533-92).<sup>3</sup> Perhaps the most distinctive aspect of Montaigne’s revolutionary form, which is now called the “familiar” or “personal essay,” is a prominent and distinctive first person voice. Montaigne memorably made the subject of his essays out to be himself—but not because of any perceived self-importance; rather, because Montaigne, in the context of the Renaissance, recognized that his own self was the one thing he knew best. As for Montaigne’s subject matter, it tended to be of general and contemporary interest. Montaigne wrote about a wide variety of topics taken from his wide reading and the current life-world: exploration, coaches, books, and thumbs. Thus the prose of literary nonfiction considers the *prosaic* aspects of life to be as worthy of attention as the exceptional aspects. Another remarkable feature of Montaigne’s *Essays*, in sharp contrast to the “academic” or “argumentative essay” of today, is that *description* is the goal rather than *persuasion*. In his famous essay “On Cannibals,” Montaigne takes a detached, relativistic approach to both his own and other cultures, since, as he remarks, everyone considers another’s culture to be “barbarous” (Treichmann 176). Likewise, literary nonfiction often takes pains to present life sympathetically and without strong partisanship, and this is why the literary nonfiction writer’s first

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<sup>3</sup> At least one anthologist, however, has suggested that the history of literary nonfiction prose should be traced back to the classical era (Lopate).

person voice can be trusted—there is little room for unreliable narrators in literary nonfiction (unless that unreliability is itself under examination). Finally, it should be noted that Montaigne’s radically new essay form is inconceivable apart from the contemporary Scientific Revolution inaugurated by figures like Galileo, Bacon, and Descartes: the Montaignian essay is an experimental “attempt” at personal exploration whose only a priori premise is “I write, therefore I am.” Montaigne’s remarkable freedom from traditional rhetorical modes and structures carries on in today’s “essay canon,” the short nonfiction “standards” that fill contemporary composition readers (Bloom).

The third and most recent stream that has influenced literary nonfiction is an American genre: “reportage literature” or “literary journalism,” a history of which is now available (Hartsock). Following in the serialized writings of Mark Twain, Thoreau, and other respected authors from the mid-nineteenth century, literary journalists helped fill the pages of early U.S. dailies with more than purely informational prose. In the early twentieth century, certain committed literary journalists wrote famous exposés of the darker side of American business and society that earned them the name of “muckrakers” (see Jensen). In the 1930’s and 40’s, fiction writers such as John Steinbeck, Ernest Hemingway, and Truman Capote experienced current events that they dramatized in so-called “nonfiction novels,” including Capote’s true-crime retelling, *In Cold Blood*. At mid-century, certain national magazines such as *The New Yorker* were sponsoring influential literary journalists like A.J. Liebling, E.B. White, and Joseph Mitchell, whose sketch of a colorful “oral historian” became immortalized in the book *Joe Gould’s Secret*. In the 1960’s, radical social concerns led to the experimental “New Journalism,” whose first generation included Norman Mailer, Tom Wolfe, and Gay Talese, followed in the 1970’s and 80’s by writers such as Hunter S. Thompson, John McPhee, Annie Dillard, Cynthia Ozick, Joan Didion, and Tracy Kidder. New Journalism is typified by lengthy first-person reports, often stemming from detailed research or extended “full immersion” experiences. Recently, New Journalism has taken on the name “creative nonfiction,” largely due to the influence of Lee Gutkind, a literary journalist and tastemaker who has edited and published widely using this term (Krause 30-32; see, for instance, Gutkind’s *Art of Creative Nonfiction*). However, because of its avowed interest in dramatic immersion experiences, “creative nonfiction” should not be mistaken for literary nonfiction more broadly considered; many excellent examples of current literary nonfiction are discursive essays that have none of the narrative framing and “scene-setting” cited by Gutkind as creative nonfiction’s essential building blocks (“Five Rs” 8-10).

The welter of attempts to name the phenomenon of literary nonfiction testifies to the variety of precedents outlined above, and signals the depth of conceptual uncertainty surrounding this “strange animal.” Though life writing purports always to be truth-based, biography, autobiography, and the memoir may nonetheless all be “fictionalized.” As for “the essay,” it can come in a confusing array of subgenres: expository, narrative, critical, academic, polemical, humorous. An even broader range of terms have been applied to literary journalism (see Hartsock 3-9). There are several contradictory Library of Congress classifications that have



been applied to literary journalism: “journalism,” “feature writing,” “prose literature,” “reportage literature,” and “nonfiction novel.” Other critics and historians of literary journalism in particular have coined a cornucopia of additional expressions, including “Journalit,”<sup>4</sup> “the literature of fact” (Weber), “the art of fact” (Lounsberry; Kerrane and Yagoda), “factual fiction,” the “fictual” (Zavarzadeh 56), “documentary fiction” (Foley), “narrative journalism,” and “paranarrative” (Stanley). In frustration with such a battery of possibilities, at least one critic has simply given up and called literary nonfiction “the ‘other’ literature” (Winterowd ix). Notwithstanding this complex genre history, I offer a fourth stream, the case study. But by doing so I am seeking to unify the conceptual realm of literary nonfiction rather than dividing it further.

## 2. THE CASE STUDY AS LITERARY NONFICTION

Another of the blanket terms for literary fiction is “the fourth genre” (Minot; Root and Steinberg), and there is now a periodical of this title. The “fourth genre” implies that literary nonfiction is on a par with the traditional “three genres” of literature: poetry, drama, and fiction (Schaefer and Diamond). Even if the “fourth genre” did not embrace such a broad spectrum of writing, this change is a revolutionary one in the literary field. The unprecedented sea change in what comprises “literature” is no doubt part of the difficulty with naming this “fourth genre.” But there is a larger issue as well: beyond questioning what literature includes, literary nonfiction also casts doubt on how literature itself is to be categorized. Traditionally, all of Western literature—whether poetry, drama, or fiction—has been considered to be fundamentally “fictional” or “made up.” Thus one of the longstanding problems in literary theory, dating from Plato, has been how “mimetic” or “true-to-life” literature can be. So what happens when a certain kind of “literature” deals entirely with real, documentable persons and events, but keeps all the usual “fictionality” too—dramatization, character creation, dialogue, and stylish language and figures of speech like similes and metaphors? Suddenly, “literariness” becomes not the degree of a piece of writing’s “fictionality,” but a matter of how attentive that writing is to its own voice, structure, and linguistic presentation.

This literariness-as-attentiveness is a key link between literary nonfiction and the case study, which also seeks to “present” in a deliberate, non-fictive way. Although the case study is now a basic methodology in a wide range of fields, the development of “the case” is not entirely clear: the beginnings of the clinical case study have been located in the eighteenth century (Foucault; Laqueur), but there is to date no history of the case study as such. According to the *Oxford English Dic-*

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<sup>4</sup> By Seymour Krim, also purported to be the originator of the phrase “New Journalism” (Zavarzadeh 63n18).

*tionary* (2nd ed., 1989), “case” as a medical term is attested by 1709 (“Case, n.1” def. 8). This English medical usage stems from *casus* records in medieval Latin (Epstein 35), and parallels the usage of the field of law. In 1762, there is a reference to a “case-book,” a collection of exemplary cases in law and medicine (*OED*, “Case, n. 1” def. 14). Many of the cases gathered in these early case-books were quite brief. According to *Merriam-Webster’s Collegiate Dictionary* (10th ed., 1993), the words “case study” and “case history,” with the added meanings of extended observation or developmental inquiry, first appear in English in 1875 and 1894, respectively. By this time, a fundamental change in “the case” had occurred: it had been borrowed from the medical and legal fields, where it is the basic unit of analysis, and applied as a unique methodology in the social sciences. The originator of this “case-study method” was the French mining engineer and sociologist Frédéric Le Play (1806-82), who used it to study miners’ family structures by living with a given family for a period of time to gather data. Freud’s famous case studies also demonstrated the value of the method for psychology, and today case studies are used not only in the social sciences, but in applied fields such as business and criminology. The case study has also appeared recently in higher education as a collaborative teaching method known as “problem-based learning” (Schwartz, Webb, and Mennin).<sup>5</sup>

Essentially, a case study or a case history (or “case record,” depending on the field) is an analysis, in narrative form,<sup>6</sup> of a single extensively observed “case” (a person, group, social situation, or other human phenomenon). From this basic definition of its genre, the case study suggests a number of affiliations with the other generic streams of literary nonfiction. Often, the “case” in question is a single person, and thus the case study can be linked to any biography, autobiography, or other life writing where a single subject is profiled. In her analysis of Luria’s case studies, for example, Anne Hunsaker Hawkins uses the phrase “clinical biography” to emphasize the similarities between literary biographies and scientific case studies (2-4). Likewise, the case study exhibits a very “tentative” protocol, which recalls the “attempt” or “trial” of the classic “essay.” And the connection between the case study and literary journalism is even more suggestive. Their simultaneous development in the later nineteenth century should be noted, and even in their earliest manifestations, both genres demanded a significant investment in “field work.” The ground-breaking muckrakers set the standard in this regard for all literary journalists. Ida Mae Tarbell performed exhaustive research for her history of Rockefeller’s monopolistic Standard Oil Company, also using notes she had taken for a novel about the “oil frontier” in Western Pennsylvania (Jensen 28). Similarly,

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<sup>5</sup> Interestingly, the problem-based learning approach was pioneered in medicine, where the case study itself also originated (Barrows & Tamblyn).

<sup>6</sup> The methodology of analyzing narrative, if not the narrative mode of the case study itself, is now well-established in the social sciences (see Reissman; Josselson & Lieblich).





Upton Sinclair spent weeks dressed as a worker to gather material about Chicago's unsanitary and injurious meat-packing industry. Although Sinclair's *The Jungle* did have a fictional main character, all of the events in the novel were realistically presented, having been adapted from experiences of actual workers. Decades later, the New Journalists also turned to intensive field work, and the clinical mindset of the case study again proved helpful. Tom Wolfe, for instance, was only able to write his observations of a custom car show in Los Angeles when he imagined his genre to be a dispassionate "memo" to his editor (xii-xiv). To this day, literary journalists and creative nonfiction writers like John McPhee and Tracy Kidder may spend months at a time working alongside and living with the persons and the places that they profile. Though it remains a scientific genre, the case study also stands as a model for all such literary efforts.

Alexander Romanovich Luria's case studies are exemplary scientific precursors of today's literary nonfiction. But Luria himself looked back to a literary model: he called these case studies "unimagined portraits," referring to the semi-historical sketches of Romantic figures in the *Imaginary Portraits* of Walter Pater (*Making of Mind* 178). Contemporary critics are still not sure what to make of Pater's *Portraits*: part historical, part fictional, they are a hybrid experiment—and Luria, who was very well read, saw an opportunity for science to learn something. Today, Lee Gutkind, who also calls himself an "immersion journalist," pursues a method remarkably similar to Luria's: intensive, long-term research and field work that climaxes in a well-considered, fully literary essay ("Five Rs" 3-7). Notably, several of Gutkind's own projects have involved various sides of the medical profession: health and healing (*View from the Divide; Healing*); pediatric medicine and psychiatry (*One Children's Place; Stuck in Time*); veterinary medicine (*Unspoken Art*); and organ transplantation (*Many Sleepless Nights*). When Gutkind argues that what distinguishes literary nonfiction is not simply the application of literary techniques to nonfictional material, but the intense, experiential participation of the nonfiction writer with the material at hand, he is remarkably close to "Romantic science," Luria's philosophy of the case study.

### 3. ROMANTIC SCIENCE: "THE DREAM OF A NOVELIST AND A SCIENTIST COMBINED"

Still recognized as a pioneer in such fields as memory and speech development,<sup>7</sup> Luria entered Soviet psychology when it was beginning a bright if brief

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<sup>7</sup> Indicative titles of some of Luria's more technical works that are available in English include *The Role of Speech in the Regulation of Normal and Abnormal Behavior* (trans. 1961), *The Mentally Retarded Child* (trans. 1963), *Higher Cortical Functions in Man* (trans. 1966), *Traumatic Aphasia* (trans. 1970), *Cognitive Development* (trans. 1976), and *The Neuropsychology of Memory* (trans. 1976).



renaissance as one of the academic fields that flourished rather than suffering after the Revolution of 1917. Luria was early on associated with the brilliant psychologist Lev Semenovich Vygotsky (1896-1934), who has been called psychology's Mozart for his tragically brief yet stunningly productive and original career. After Vygotsky's premature death from tuberculosis, Luria was one of a number of Soviet psychologists who carried on with the Vygotskian program. Because his career spanned a much longer period, including the era under Stalin when Vygotsky's ideas were posthumously suppressed, Luria was forced to supplement his early interests in psychoanalysis and in Vygotsky's cultural psychology with a formal medical degree in clinical neurology and also with work in child development (see Vocate). Michael Cole, a long-time associate of Luria and a leading American promulgator of Soviet psychology, has noted how "[i]n the course of single lifetime [Luria] had found it necessary to think in several scientific languages, each of which coded the same reality in different, seemingly disconnected ways" ("Portrait" 224). Cole's account is an epilogue to Luria's own self-effacing autobiography, in which Luria makes only one presumptive move—to link the many seemingly isolated endeavors of his career under a single rubric. "Romantic science" was the name that Luria gave to this attempt.

Stemming originally from the distinction posited by the nineteenth-century physiologist Max Verworn, Luria's Romantic science is a holistic approach to knowledge that is opposed to reductive "classical science":

Classical scholars are those who look upon events in terms of their constituent parts. Step by step they single out important units and elements until they can formulate abstract, general laws. These laws are then seen as the governing agents of the phenomena in the field under study. One outcome of this approach is the reduction of living reality with all its richness of detail to abstract schemas. The properties of the living whole are lost, which provoked Goethe to pen, "Gray is every theory, but ever green is the tree of life."

Romantic scholars' traits, attitudes, and strategies are just the opposite. They do not follow the path of reductionism, which is the leading philosophy of the classical group. Romantics in science want neither to split living reality into its elementary components nor to represent the wealth of life's concrete events as abstract models that lose the properties of the phenomena themselves. It is of the utmost importance to [R]omantics to preserve the wealth of living reality, and they aspire to a science that retains this richness. (*Making of Mind* 174)

I have chosen to capitalize "Romantic science" throughout in order to emphasize its intended connection with that period in literary history associated with writers such as Goethe. The link to literary history is also appropriate because language and literature held a central place in Luria's psychology.<sup>8</sup> For example, Luria's

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<sup>8</sup> As Luria notes, "By training [Vygotsky] was a literary critic, whose dissertation on Shakespeare's *Hamlet* is still considered a classic. In this work, as well as in his studies of fables and other



neurological study of aphasia supported Roman Jakobson's well-known differentiation in literary theory between the "metaphoric" and "metonymic" poles of stylistic expression among Russian novelists (Vocate 113; Luria, "Two Basic Kinds").

Besides its derivation from literary history, Luria also implied a certain interdisciplinarity through the Classical / Romantic distinction. That is, "Romantic" is not simply the opposite of "Classical" science, but is instead an attempt to link science's aim of explanation and solution with the humanities' premium on the uniqueness of each individual case: "I wanted," reflects Luria, "a psychology that would overcome this conflict, that would simultaneously describe the concrete facts of the mental life of individuals and generate general explanatory [*sic*] laws" (*Making of Mind* 23). One contemporary practitioner of Luria's Romantic science is the neurologist Oliver Sacks, well-known for his popular writings on brain disorders, to which he has given the name "clinical tales" (*Man Who Mistook*). Sacks gives an ecstatic version of what Romantic science meant for Luria:

To see his way to a *conjunction* of the two —that "impossible conjunction" (as the philosopher David Hume once put it) between the modes of anatomy and art. And the key to this was the perception of the individual as a *being*, a living being, containing (but transcending) organic functions and drives, a being rooted in the depths of biology, but historically, culturally, biographically unique. How was one to present such a being, to achieve the "impossible conjunction" of anatomy and art? By creating, if it were possible, a *biological biography*, in which all the determinants of human development and personality would be exhibited as coexistent, coacting, and interacting with one another, in continuous interplay, to produce the final becoming or being. A case history, if you will, but much more than a case history—for a case history merely exhibits a syndrome and its development. What Luria started to envisage was a total portrait, an anatomizing portrait, of the afflicted individual. ("Luria" 189)

"Portrait" is a key word here. Each of Luria's two famous case studies of the mind exemplify Romantic science as "*unimagined* portraits." The force of Luria's "*unimagined*" is both a clinical and curative imperative: the patient and the patient's disability are real—and so is the possibility of amelioration *through* the literary portrait.

Michael Cole emphasizes that such a therapeutic bent, underscored by Luria's expert clinical work in neuropsychology, is the end purpose of the case study: "[Luria's] way of synthesizing the two psychologies seeks to prove the utility of theoretical principles arrived at through the experimental study of groups of people by showing how they are relevant to *understanding and changing* the concrete life circumstances of an individual human being" ("Historical" 6). In the

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works of fiction, he revealed a striking ability to carry out psychological analysis" (*Making of Mind* 39). Vygotsky's work on *Hamlet* was incorporated into his *Psychology of Art* (trans. 1971), which remains unusual in aesthetic psychology for stressing verbal as opposed to visual art forms.

same way, points out Cole, is Oliver Sacks one of the more ardent contemporary practitioners of Luria's Romantic science. According to a foreword which he wrote for a republication of *Man with a Shattered World*, Sacks also is seeking what Luria sought: "picturing and at the same anatomizing a man, the dream of a novelist and a scientist combined" (xii). According to Sacks, as Michael Cole comments, "a central characteristic of Romantic Science is that it treats analytic science and synthetic biography of the individual case as essentially complementary" ("Moscow" 8).

#### 4. LURIA'S PORTRAITS: HEALING THE AUTHORIZING MIND

By the time Luria published the studies translated as *The Mind of the Mnemonist* (1968) and *The Man with a Shattered World* (1972), the interviews and examinations that had gone into them had been underway for decades. The delay in publication was due to an unfavorable political climate under Stalin, but the studies only benefited from the long-term commitment and extensive teamwork that they ultimately reflected. They also are among the best exhibitions of a commitment to Romantic science, Luria claims, for in them "I tried to study the individual's basic trait as carefully as possible and from it to deduce his other personality traits. In other words, I tried to do a 'factor analysis' of my subjects" (*Making of Mind* 179). A technical term, "factor analysis" refers to the description of the multiple influences that simultaneously bear upon the results of a given psychological test (Thurstone; Burt). Luria explains how this "factor analysis" is characteristic of Romantic science, in which the idiographic impulse is reconnected to the classical imperative:

Clinical and psychological observations have nothing in common with the reductionism of the classicist. [...] Such an analysis seeks out the most important traits or primary basic factors that have immediate consequences and then seeks the secondary or "systemic" consequences of these basic underlying factors. Only after these basic factors and their consequences have been identified can the entire picture become clear. The object of observation is thus to ascertain a network of important relations. When done properly, observation accomplishes the classical aim of explaining facts, while not losing sight of the [R]omantic aim of preserving the manifold richness of the subject. (*Making of Mind* 178)

The two patients that showcase Luria's Romantic science represent the kind of cases that are in particular need of the sympathies of Romantic science—the two ends of the spectrum of ability, the farthest extremes that are the ones typically "averaged out" by the classical perspective. In examining these two extremes, Luria's portraits also invert our classical expectations of them: it turns out that Sherashevsky, the nominally "gifted" mnemonist, is actually quite disabled, while Zassetsky, the head-injured and apparently "disabled" one, is surprisingly more able than anyone expects.





The famous memory of Sherashevsky has been memorialized in a short story by Jorge Luis Borges.<sup>9</sup> The first half of Luria's *Mind of a Mnemonist* is devoted to describing just what Sherashevsky's astounding memory was like: an intensely synesthetic and eidetic type of memory, in which things (or the words or symbols used to represent them) are remembered, with great durability, for their visual and other sensorial associations. At the initial consultations with Sherashevsky, who had been referred by one of the mnemonist's bemused employers, Luria was forced to abandon the very simple clinical prerequisite of determining the power of the given memory: "I simply had to admit that the capacity of his memory *had no distinct limits*" (*Mnemonist* 11; original emphasis). Sherashevsky was surprised that others did not remember things as he did, with intense and simultaneous visual and even tactile components: someone's voice might be "yellow and crumbly," any given word would evoke a highly concrete image, and individual numbers were concretely personified for him as if they were miniature persons. Sherashevsky had vivid "cradle memories" of his infancy, and could remember anything, even a long string of random numbers, years later and with perfect accuracy—and he would do so by replacing himself completely in the original situation: what he had been wearing, where he had been sitting in the room, and so on. When he became a professional mnemonist, Sherashevsky would frequently imagine he was leaving the things to be remembered, all translated into concrete images, in a sequence along a familiar street. The only "limit" that Luria could find to this memory was occasional "forgetting" that indicated not a difficulty with memory, but rather a difficulty with *perception*, as when Sherashevsky "deposited" an image in a "shadowy" place: "He would simply walk on 'without noticing' the particular item, as he explained" (*Mnemonist* 35).

Sherashevsky's synesthesia dominated his life in every way, and in some very unproductive ways. Many activities that most of us take for granted, such as reading, were surprisingly difficult for him, since he would tend to be constantly distracted by extraneous and unrelated imagery. Individual words might have an entirely appropriate "look" and "feel," while others must surely be "wrong," since their sounds evoked images contrary to the words' accepted meanings. That is, sign and signifier were never separate for Sherashevsky, in other words, even if the signifiers were nonsense syllables or random numbers. One of the most revealing of the many passages where Sherashevsky is quoted as describing his synesthetic feats of memory is when he relates, a full fifteen years after the fact, how he memorized the opening of Dante's *Divine Comedy*, with no prior knowledge of Italian:

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<sup>9</sup> The portrait of the mnemonist Sherashevsky was re-imagined, claims Luria (*Making of Mind* 187), in Borges' short story "Funes the Memorioso" ("Funes el memorioso," 1944), recently retranslated as "Funes, His Memory" in Jorge Luis BORGES, *Collected Fictions*, trans. Andrew Hurley (New York: Viking-Penguin, 1998), 131-37.

- (*Nel*) – I was paying my membership dues when there, in the corridor, I caught sight of the ballerina Nel'skaya.
- (*mezzo*) – I myself am a violinist; what I do is to set up an image of a man, together with [Russian: *vmeste*] Nel'skaya, who is playing the violin.
- (*del*) – There's a pack of Deli Cigarettes near them.
- (*cammin*) – I set up an image of a fireplace [Russian: *kamin*] close by.
- (*di*) – Then I see a hand pointing toward a door [Russian: *dver*].
- (*nostra*) – I see a nose [Russian: *nos*]; a man has tripped and, in falling, gotten his nose pinched in the doorway (*tra*).
- (*vita*) – He lifts his leg over the threshold, for a child is lying there, that is, a sign of life—vitalism. (*Mnemonist* 45-46)

And so on, with perfect recall (and perfect pronunciation), but no true comprehension: and one of the great literary statements of the journey of existence is transmuted into a surrealistic, romanticized farce, and Dante's crisis of mid-life reduced to an infantile symbol.

There can be no doubt that Sherashevsky was highly gifted. Luria details the heterodox but highly effective ways that Sherashevsky could use to solve problems where his extreme talents for visualization were appropriate, and for a time Sherashevsky took advantage of what he called this truly "speculative" ability by consulting as an "efficiency expert." There was also a degree of progress in Sherashevsky's memory skills after he began doing formal exhibitions: he began to use images more appropriately and efficiently, and also began to achieve a voluntary degree of forgetting, which was far more difficult for him than remembering. Without this willful forgetting, a blackboard used for several successive performances would otherwise be haunted with all of that evening's numbers in a superimposed jumble. Recognition of faces and voices was very difficult for Sherashevsky, because their natural changeability meant he could not regularly link them with the appropriate image. And his fantastic imagination led not only to intense distractibility in daily life, as when an ice cream vendor's harsh voice causes Sherashevsky to "see" the ice cream as covered with dirt, but even to his imagination's assertion of itself over reality: he was often late because he would "see" the hands of the clock remaining fixed! Ultimately, the division between "reality" and what Sherashevsky "saw" caused him to approach life with profound passivity: "he lived in wait of something that he assumed was to come his way, and gave himself up to dreaming and 'seeing' far more than to functioning in life" (*Mnemonist* 157).

Luria's second major foray into Romantic science was *The Man with a Shattered World*, subtitled *The History of a Brain Wound*. Focusing on the case of one Zassetsky, this study shares with *The Mind of a Mnemonist* the analysis of a key determinative factor in the makeup of a personality: "Because Sherashevsky's entire personality was shaped by his incredible memory, I could study the structure of his mind in the same way that I studied syndromes. By contrast, my second book using the approach of [R]omantic science began, not with an outstanding capacity, but with a catastrophe that had devastated a man's intellectual powers" (*Making of Mind* 184). Zassetsky's case appears very dire compared to Sherashevsky's: the bullet that



struck his brain damaged the parieto-occipital lobe, causing an impairment of vision, the loss of short-term memory, and even the obliteration of spatial perception and bodily orientation, so that Zassetsky would literally “misplace” parts of his body and could “forget” such basic functions as moving his bowels. However, the frontal cortex, the portion of the brain associated with what Vygotsky and Luria called the “higher psychological functions,” had fortunately remained undamaged: this block, as Luria describes it, “is a powerful apparatus that allows one to form and sustain intentions, plan actions, and carry them through” (*Shattered World* 34).

With this area unscathed, Zassetsky was able to achieve a stunning measure of recovery. The miracle comes when, during a routine session, Luria makes a surprising suggestion that helps Zassetsky to recover the ability to write, which everyone had supposed had been completely lost. As Zassetsky remembers his difficulty with writing even a simple word,

even after I thought I knew the letters, I couldn't remember how they were formed. Each time I wanted to think of a particular letter, I'd have to run through the alphabet until I found it. But one day a doctor I'd come to know well, since he was always very informal with me and the other patients, asked me to write automatically—without lifting my hand from the paper. I was bewildered and questioned him a few times before I could even begin, but finally picked up the pencil and after repeating the word *blood* a few times, I quickly wrote it. I hardly knew what I'd written since I still had trouble reading [...]. (*Shattered World* 185-86)<sup>10</sup>

Lucid written accounts like the above were the end result: Zassetsky was able, with great labor, to piece his life back together through writing, and ultimately succeeded in filling thousands of pages in his journals. Most of *The Man with a Shattered World* is simply quotations from these writings: apart from three digressions in which Luria gives details about Zassetsky's injury and the neurology of language and writing, the majority of the book is in Zassetsky's own words, with occasional interpolation and commentary by Luria.

This privileging of the patient's own account expands the practice of *The Mind of the Mnemonist*, which also contains large swaths of Sherashevsky's personal narratives of his feats of memory. In short, Luria appears highly “informal,” as Zassetsky puts it—leaving the case study itself largely up to the *patient*: “[Zassetsky] wrote,” Luria says, “with the precision of a man doing psychological research— someone who really knows his field. [...] In doing so, he left us a classic analysis of his disability” (*Shattered World* 92). The possibility of understanding his own injury through writing in order to circumvent it became a driving force in Zassetsky's life, and the benefit of this personal account also accrues to neurology generally:

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<sup>10</sup> “Blood” also has five letters in Russian: *krov'*, with complicated letter shapes: 7 C? %[, and more complicated yet in the cursive script form that Zassetsky was using.



In describing his fate, he left us not just a tragic document but some priceless information. Indeed, who is better able to describe an event than someone who has himself been an eyewitness, participant, victim? Having been victimized by his illness, he proceeded to investigate it. His description is exceptionally clear and detailed; if we follow his step by step, we may unravel some of the mysteries of the human brain. (*Shattered World* 86)

In *The Man with a Shattered World*, then, Luria is still the clinician, but he does not write the account—he is the editor of Zassetsky, or, better, his anthologist. In a foreword entitled “Concerning the Book and Its Author,” Luria admits that “[t]he real author is its hero” (*Shattered World* xix). In “From the Author,” his own foreword, Zassetsky gives his own title for the work—“I’ll Fight On!”—and demonstrates in a moving passage that, though he remains injured, his writing at least is the creative equal of the task:

As for the flight of a bullet, or a shell or a bomb fragment, that rips open a man’s skull, splitting and burning the tissues of his brain, crippling his memory, sight, hearing, awareness—these days people don’t find anything extraordinary in that. But if it’s not extraordinary, why am I ill? Why doesn’t my memory function, my sight return? Why does my head continually ache and buzz? It’s depressing, having to start all over and make sense out of a world you’ve lost because of injury and illness, to get these bits and pieces to add up to a coherent whole. (*Shattered World* xxi)

In addition to being a well-authored definition of Romantic science, this statement also exhibits the strong stance that Zassetsky took against war. In a passage that Luria places as an epilogue to the book, this sentiment lifts Zassetsky’s tragedy above the individual to the universal:

How many tragedies has war created? How many people have died, been crippled, robbed on any chance of a productive life? Who knows how many of those whom war has crippled and destroyed might have been great people. [...] Were it not for war, the world would have become a great place to live long ago. (*Shattered World* 160)

In marching down the impossibly long road to recovery, Zassetsky becomes the heroic author of this endless psychological odyssey.

## 5. CONCLUSION: LITERARY NONFICTION AS THERAPY

In Luria’s two case studies, writing serves as an enabling force far more for Zassetsky than Sherashevsky, for it became his one reason for going on with life and seeking a cure: “The point of my writing is to show how I have been, and still am, struggling to recover my memory” (*Shattered World* 84). For Sherashevsky, writing had no such promise—not only did he not need to write anything down to remember it, but writing was not even a sure way to forgetting: “after he had burned



a piece of paper with some numbers he wanted to forget and discovered he could still see traces of the numbers on the charred embers, he was desperate. Not even fire could wipe out the traces he wanted to obliterate!” (*Mnemonist* 70-71). For Luria, the writing of the cases —formulated generically as a commentary upon them— is the primary, enabling means of Romantic science. Writing is fundamental to this process, which recalls a therapeutic practice called the “index card plan” that Luria and his associates developed to help other World War II patients who had lost the ability to formulate a narrative out of isolated incidents, or sentences out of jumbled phrases: they first wrote out the fragments in any order on pieces of paper, which laid out could then be reorganized into something coherent (*Making of Mind* 149-56). Like a good editor, the role of Luria in these cases is one of humble facilitation, in which the clinician works to absent the clinician’s self more and more for the sake of the more important self, the author-patient.

One does not need to be a neurologist like Luria, however, to appreciate the vital importance of narratives and stories for human cognition and the psyche. In classical times, the spoken word was thought to be endowed with significant healing power (Lain Entralgo). The history of modern medicine itself can be told as the evolving understanding of disease as a patient narrative (Epstein). More recently, psychotherapists and social psychologists have documented the power of storytelling for restoring and maintaining both physical and mental health (Roberts and Holmes; Lieblich, McAdams, and Josselson). And according to current neurological understanding, it may be that the brain’s construction of narratives about ourselves, our memories, and our experiences is a central part of human personality and behavior (Young and Saver). But Luria and his case studies add another dimension to the human importance of narratives: though these are often narrated in thought and speech, they are also things that are written, as Zassetsky so heroically demonstrates. For Luria (following Vygotsky), literacy, the practice of reading and writing, has broad ramifications for the higher psychological processes of humans, because literacy fosters such basic cognitive abilities as abstraction, categorization, and logical comparison (D’Angelo).

Whatever the possibilities of what Alex Kozulin calls “authoring,” its limits and possibilities are certainly being tested today by the writers of literary nonfiction. Like life writing, literary nonfiction describes the niceties of human personality and existence. Like the classic essay, literary nonfiction tests and probes whatever pricks the consciousness of the writer. Like literary journalism, literary nonfiction demands intensive personal experience of persons, places, and events. And like the case study, literary nonfiction seeks to know the causes of things, so that they may be better understood, or simply bettered. Luria’s Romantic science presides over all these modes, and guides literary nonfiction towards the promises of authoring.



## WORKS CITED

- ARNOLD, Matthew. "Literature and Science." 1882. *The Complete Prose Works*. 11 vols. Ed. R.H. Super. Vol. 10. Ann Arbor: U of Michigan P, 1960. 53-73.
- BARROWS, Howard S., & Robyn M. TAMBLYN. *Problem-Based Learning: An Approach to Medical Education*. Springer Series on Medical Education 1. New York: Springer, 1980.
- BLOOM, Lynn Z. "The Essay Canon." *College English* 61 (1999): 401-30.
- BURT, Cyril. *The Factors of the Mind: An Introduction to Factor-Analysis in Psychology*. London: U of London P, 1940; New York: Macmillan, 1941.
- CAPOTE, Truman. *In Cold Blood: A True Account of a Multiple Murder and Its Consequences*. New York: Random, 1965.
- COLE, Michael. "A Portrait of Luria." Epilogue. *Making of Mind: A Personal Account of Soviet Psychology*. By A.R. Luria. Cambridge: Harvard UP, 1979. 220-30.
- . "From Moscow to the Fifth Dimension: An Exploration in Romantic Science." *Contemporary Implications of Vygotsky and Luria*. By Michael Cole & James V. Wertsch. 1995 Heinz Werner Lecture Series, No. 21. Worcester: Clark UP, 1996. 1-37.
- . "The Historical Context." Introduction. *Making of Mind: A Personal Account of Soviet Psychology*. By A.R. Luria. Cambridge: Harvard UP, 1979. 1-14.
- D'ANGELO, Frank J. "Luria on Literacy: The Cognitive Consequences of Reading and Writing." *Literacy as a Human Problem*. Ed. James C. Raymond. University: U of Alabama P, 1982. 154-69.
- EPSTEIN, Julia. *Altered Conditions: Disease, Medicine, and Storytelling*. New York: Routledge, 1995.
- EVEN-ZOHAR, Itamar. "Polysystems Theory." *Poetics Today* 11 (1990): 1-268.
- FOLEY, Barbara. *Telling the Truth: The Theory and Practice of Documentary Fiction*. Ithaca: Cornell UP, 1986.
- FOUCAULT, Michel. *The Birth of the Clinic: An Archaeology of Medical Perception*. Trans. A.M. Sheridan Smith. New York: Pantheon, 1973.
- GUTKIND, Lee. *The Art of Creative Nonfiction: Writing and Selling the Literature of Reality*. Wiley Books for Writers Series. New York: Wiley, 1997.
- . ed. *Healing: Twenty Prominent Authors Write About Inspirational Moments of Achieving Health and Gaining Insight*. New York: Tarcher-Putnam, 2001.
- . *Many Sleepless Nights: The World of Organ Transplantation*. New York: Norton, 1988.
- . *One Children's Place: A Profile of Pediatric Medicine*. New York: Grove Weidenfeld, 1990.

- *Stuck in Time: The Tragedy of Childhood Mental Illness*. New York: Holt, 1993.
- “The Five Rs of Creative Nonfiction.” *The Essayist at Work: Profiles of Creative Nonfiction Writers*. Ed. Lee Gutkind. Portsmouth: Heinemann, 1998. 1-14.
- ed. *An Unspoken Art: Profiles of Veterinary Life*. New York: Holt, 1997.
- *A View from the Divide: Creative Nonfiction on Health and Science*. Pittsburgh: U of Pittsburgh P, 1998.
- HARTSOCK, John C. *A History of American Literary Journalism: The Emergence of a Modern Narrative Form*. Amherst: U of Massachusetts P, 2000.
- HAWKINS, Anne Hunsaker. “A.R. Luria and the Art of Clinical Biography.” *Literature and Medicine* 5 (1986): 1-15.
- JENSEN, Carl. *Stories That Changed America: Muckrakers of the 20th Century*. New York: Seven Stories, 2000.
- JOSSelson, Ruthellen, & Amia LIEBLICH, eds. *The Narrative Study of Lives*. Advances in Narrative and Life History 1. Newbury Park: Sage, 1993.
- KERRANE, Kevin, & Ben YAGODA, eds. *The Art of Fact: A Historical Anthology of Literary Journalism*. New York: Scribner, 1997.
- KOZULIN, Alex. *Psychological Tools: A Sociocultural Approach to Education*. Cambridge: Harvard UP, 1998.
- KRAUSE, Carolyn. “Journalism, Creative Nonfiction and the Power of Academic Labels.” *Points of Entry: Cross-Currents in Storytelling* 1.1 (2003): 25-34.
- LAÍN ENTRALGO, Pedro. *The Therapy of the Word in Classical Antiquity*. Trans. L.J. Rather & John M. Sharp. New Haven: Yale UP, 1970.
- LAQUEUR, Thomas W. “Bodies, Details, and the Humanitarian Narrative.” *The New Cultural History*. Ed. Lynn Hunt. Berkeley: U of California P, 1989. 176-204.
- LIEBLICH, Amia, Dan P. McADAMS, & Ruthellen JOSSElson, eds. *Healing Plots: The Narrative Basis of Psychotherapy*. The Narrative Study of Lives. Washington: APA, 2004.
- LOPATE, Phillip, ed. *The Art of the Personal Essay: An Anthology from the Classical Era to the Present*. New York: Anchor, 1994.
- LOUNSBERRY, Barbara. *The Art of Fact: Contemporary Artists of Nonfiction*. Contributions to the Study of World Literature 35. New York: Greenwood, 1990.
- LUHMANN, Niklas. *Art as a Social System*. Trans. Eva M. Knodt. Stanford: Stanford UP, 2000.
- LURIA, A.R. *The Making of Mind: A Personal Account of Soviet Psychology*. Ed. Michael Cole & Sheila Cole. Cambridge: Harvard UP, 1979.
- *The Man with a Shattered World: The History of a Brain Wound*. Trans. Lynn Solotaroff. New York: Basic, 1972.
- *The Mind of a Mnemonist: A Little Book About a Vast Memory*. Trans. Lynn Solotaroff. New York: Basic, 1968.
- “Two Basic Kinds of Aphasic Disorders.” *Linguistics* 115 (1973): 57-66.
- MINOT, Stephen. *Literary Nonfiction: The Fourth Genre*. Upper Saddle River: Prentice, 2003.
- MITCHELL, Joseph. *Joe Gould’s Secret*. 1942; 1964. New York: Viking, 1965.
- NAHIN, Paul J. *Time Machines: Time Travel in Physics, Metaphysics, and Science Fiction*. 2nd ed. Woodbury: AIP, 1999.

- PATER, Walter. *Imaginary Portraits*. 1887. Library ed. Vol. 4. London: Macmillan, 1910.
- RIESSMAN, Catherine Kohler. *Narrative Analysis*. Qualitative Research Methods 30. Newbury Park: Sage, 1993.
- ROBERTS, Glenn, & Jeremy HOLMES, eds. *Healing Stories: Narrative in Psychiatry and Psychotherapy*. Oxford: Oxford UP, 1999.
- ROOT, Robert L., & Michael STEINBERG, eds. *The Fourth Genre: Contemporary Writers of/on Creative Nonfiction*. 3rd ed. New York: Pearson-Longman, 2004.
- SACKS, Oliver. Foreword. *The Man with a Shattered World: The History of a Brain Wound*. By A.R. Luria. New York: Basic, 1972. vii-xviii.
- “Luria and “Romantic Science”.” *Contemporary Neuropsychology and the Legacy of Luria*. Ed. Elkhonon Goldberg. Hillsdale: Erlbaum, 1990. 181-94.
- *The Man Who Mistook His Wife for a Hat and Other Clinical Tales*. New York: Summit, 1985.
- SCHAEFER, Candace, & Rick DIAMOND. *The Creative Writing Guide: Poetry, Literary Nonfiction, Fiction, and Drama*. New York: Longman, 1998.
- SCHMIDT, Siegfried J. *Foundations for the Empirical Study of Literature: The Components of a Basic Theory*. Trans. Robert de Beaugrande. Papers in Textlinguistics 36. Hamburg: Buske, 1982.
- SCHWARTZ, Peter L., Graham WEBB, & Stewart MENNIN, eds. *Problem-Based Learning: Case Studies, Experience and Practice*. Case Studies of Teaching in Higher Education. London: Kogan Page; Sterling: Stylus, 2001.
- SINCLAIR, Upton. *The Jungle*. New York: Doubleday, 1906.
- SNOW, C.P. *The Two Cultures: And a Second Look*. 2nd ed. Cambridge: Cambridge UP, 1964.
- STANLEY, Lawrence K. “Paranarrative and the Performance of Creative Nonfiction.” *Professing Rhetoric: Selected Papers from the 2000 Rhetoric Society of America Conference*. Ed. Frederick J. Antczak, Cinda Coggins & Geoffrey D. Klinger. Mahwah: Erlbaum, 2002. 147-53.
- TARBELL, Ida M. *The History of the Standard Oil Company*. 2 vols. New York: McClure, 1904.
- THURSTONE, L.L. *The Vectors of Mind: Multiple-Factor Analysis for the Isolation of Primary Traits*. Chicago: U of Chicago P, 1935.
- TRECHMANN, E.J., trans. *The Essays of Montaigne*. New York: Modern Library, 1946.
- VOCATE, Donna R. *The Theory of A.R. Luria: Functions of Spoken Language in the Development of Higher Mental Processes*. Hillsdale: Erlbaum, 1987.
- WEBER, Ronald. *The Literature of Fact: Literary Nonfiction in American Writing*. Athens: Ohio UP, 1980.
- WINTEROWD, W. Ross. *The Rhetoric of the “Other” Literature*. Carbondale: Southern Illinois UP, 1990.
- WOLFE, Tom. *The Kandy-Kolored Tangerine-Flake Streamline Baby*. New York: Farrar, 1965.
- YOUNG, Kay, and Jeffrey L. SAVER. “The Neurology of Narrative.” *SubStance* 30 (2001): 72-84.
- ZAVARZADEH, Mas’ud. *The Mythopoeic Reality: The Postwar American Nonfiction Novel*. Urbana: U of Illinois P, 1976.

