ABDUCTING THE IMAGINATION: THE METHODOLOGICAL FOUNDATION OF
SCIENCE AND CRITICISM IN COLERIDGE AND PEIRCE

by

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Abstract

The core the dissertation examines S. T. Coleridge’s writings on method and imagination from the 1815 composition of *Biographia Literaria* through the publication of the “Essays on the Principles of Method” in the 1818 *Friend*. I demonstrate how these writings clarify, develop, and indeed repair Coleridge’s earlier theory of imagination by articulating its role within a general theory of inquiry meant to comprehend the works of science and literature as methodical investigations. Whereas the *Biographia* fails in its attempt to ground the imagination within a conception of the self as intellectually intuited in a manner conceived by German Idealists such as Schelling, Coleridge’s “Essays on Method” explore the imagination through a theory of inquiry predicated on the discovery, analysis, and contemplation of relations. I argue that Coleridge aligns the operation of the secondary imagination to a logical function: the eduction of an “idea,” according to Coleridge’s precise sense of that term as a necessarily *tautological* relation – one that expresses the same subject, but with a difference. It is ideas, so conceived, that serve to guide inquiry. Coleridge’s refinement of the theory of imagination is done in serve of his argument that ideas are “constitutive” -- that is, they play a fundamental role in what it is, internal to our constitution and that of the world, that enables inquiry in the first place -- and should be seen as part of Coleridge’s answer to what he identifies as the highest problem of philosophy in the 1816 *Statesman’s Manual*. I emphasize how Coleridge’s “Essays on Method” move him away from the dialectic of major oppositions that fettered his earlier work and still linger in contemporary theory, particularly the opposition between science and poetry in its relation to a metaphysical framework that sees the world as irreducibly split into its “objective” and “subjective” components.
Part two examines the consonance of Coleridge’s “Essays on Method” with Charles S. Peirce’s later development of logic as semeiotic. I trace the broad compatibility of Coleridge’s account of the operation of the secondary imagination as the apprehension of an idea through the discarding of imagery with Peirce’s depiction of abduction as a mode of inference – aligned with the play of musement – that is responsible for the formation of explanatory hypotheses. Part two does not merely trace historical connections between Coleridge and Peirce (as mediated by the work of Edgar Allan Poe) but identifies a certain strain of reflection on method, imagination, and inquiry that is exhibited tautegorically in the works of thinkers who followed, were influenced by, or appropriated Coleridge in one way or another. One of the key insights of the dissertation is that Coleridge himself introduced – indeed coined – the tautegorical paradigm as a new methodological framework for connecting the ideas and contributions of thinkers from disparate epochs and with apparently disparate backgrounds and motivations. Coleridge, Poe, and Peirce repeatedly single out the work of Johannes Kepler both for its crucial importance within the history of science and for its strikingly imaginative character. Their testimony is used to retrospectively illuminate, via principles that Coleridge was the first to explicitly articulate, the methodological and imaginative underpinnings of Kepler’s 1611 *Six-Cornered Snowflake*. My analysis of how these thinkers all exemplify Coleridge’s ideas about method and inquiry – but differently in each case – shows how an analysis of historical connections and influences can dovetail with, and be augmented by, the kind of tautegorical explication performed by the dissertation.

The dissertation concludes by outlining how the framework developed by Coleridge (and further modified by Peirce) provides the means to theorize imaginative literature as itself a form of *reasoning*. Unlike contemporary models that seek to account for the literary text as the result of something antecedent to its composition (whether the author’s conscious thoughts and feelings, the author’s unconscious, the various power structures of the time and
place in which the work was written, and so forth), Coleridge’s model of literary reasoning offers a philosophically and historically grounded means to explore what Kenneth Burke memorably called “literature as equipment for living.”

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Table of Contents

Introduction: Abducting the Imagination........................................................................................................... 1

Part One: Reimagining Coleridge

§1 – Reimagining Coleridge: Introduction ........................................................................................................... 23
  §1.1 – The Imagination in *Biographia Literaria*: Goals and Difficulties ......................................................... 25
  §1.2 – From *Biographia Literaria* Through “Essays on Method” ................................................................. 33

§2 – “To Descend into the Dark Cave of Trophonius”: Schelling and the Deduction of the Imagination ............. 41
  §2.1 – “You Must Have a Lantern in Your Hand to Give Light”: On Reading Coleridge’s Debts to Schelling .... 42
  §2.2 – The Presence of Schelling in Coleridge’s Deduction of the Imagination ............................................. 62
  §2.3 – “Taken In” by Schelling: Coleridge’s 1818 Objections ......................................................................... 68

§3 – Tautegory and the Romantic Symbol .......................................................................................................... 76
  §3.1 – Coleridge’s Rhetorical Taxonomy: Symbol as One Species of Tautegorical Relation ......................... 78
  §3.2 – Defining the Symbol: *The Statesman’s Manual* ................................................................................. 82
  §3.3 – The Coleridgean Symbol Exemplified: Wallace Stevens’ “Not Ideas About the Thing, But the Thing Itself” 86
  §3.4 – The Stakes of the Coleridgean Symbol: Numinousness and Foresight .............................................. 89
  §3.5 – “The Blindness of Self-Complacency”: Paul de Man’s “The Rhetoric of Temporality” ....................... 96

§4 – “The True Import and Legitimate Use of the Term, Idea” ......................................................................... 110
  §4.1 – The Kantian Background ...................................................................................................................... 111
  §4.2 – Idea (Tautegory) and Concept (Allegory): John Hunter’s Museum of Natural History ....................... 123

§5 – Solving Philosophy’s Highest Problem ...................................................................................................... 133
  §5.1 – Idea and Theorem: A Brief Note on Coleridge’s Conception of Mathematics ....................................... 134
  §5.2 – Idea, Foresight, Method ........................................................................................................................ 136
  §5.3 – A Concrete Exemplification: Learning Newton’s Second Law of Motion ............................................ 148

§6 – The Function of the Secondary Imagination: The Eduction of Ideas and the Discarding of Images ............. 155
  §6.1 – The Critical Collapse of Imagination Into Fancy .................................................................................. 156
  §6.2 – Idea as an Educt of the Imagination: A Metaphor From Chemistry .................................................... 162
  §6.3 – The Operation of Secondary Imagination: The Dismission of the Imagery ......................................... 170
LIST OF FIGURES

Figure 1. The Frontispiece to Bacon's Instauratio Magna. .................................................. 17
Figure 2. The Basic Divisions of Coleridge's Rhetorical Taxonomy. ..................................... 79
Figure 3. A Fuller Depiction of Coleridge's Rhetorical Divisions ........................................ 82
Figure 4. Kant's Taxonomy of the Genus "Representation" .................................................... 113
Figure 5. Peirce's Categories and Triadic Structure. ............................................................... 217
Figure 6. The Triadic Architecture of Peirce's "New List." .................................................... 218
Figure 7. The Stacking of 7 Regular Hexagons ........................................................................ 271
Figure 8. A Selection of Figures from Kepler's Study of Tessellation in Harmony of the World .... 273
Figure 9. A Diagrammatic Representation of the Base of a Honeycomb Cell ......................... 275
Figure 10. A Diagrammatic Representation of the Stacking of Cells in a Honeycomb .............. 276
Figure 11. Kepler's Diagrams of the Rhombic Dodecahedron and Tricontahedron .................. 277
Figure 12. Kepler's Diagram of Two Packing Arrangements ................................................... 279
Figure 13. Kepler's List of Questions as Decision Tree ............................................................ 292
Figure 14. The Formation of the Golden Ratio From a Pentagon ............................................. 295
Figure 15. Simile Interaction as a Venn Diagram ..................................................................... 316
Abbreviations

All quotations from Coleridge refer to The Collected Works of Samuel Taylor Coleridge, general editor Kathleen Coburn (Princeton University Press, 1969-2002). Individual volumes in the series are abbreviated as follows.


The following abbreviations are used to refer to the standard editions of Peirce’s works.


MS  Peirce manuscripts in Houghton Library at Harvard University, followed by a number identified in Richard R. Robin, Annotated Catalogue of the Papers of Charles S. Peirce (Amherst: University of Massachusetts Press, 1967).


Introduction: Abducting the Imagination

“Imagination” is perhaps the most over-used and under-theorized term in criticism and theory. It is commonly noted that the word and its cognates are invoked in disparate contexts. On the one hand, “imagination” is commonly understood in opposition to “reality” or the perception thereof. The products of the imagination, thus aligned with the fictive or make-believe, stand out as sites especially susceptible to critical or ideological interrogation. On the other hand, “imagination” is also frequently contrasted with the “repetitive,” “boring,” or “uncreative,” such that an “imaginative” solution is understood to provide the only means of carrying forward. In one sense, these ambiguities are as old as the history of the term itself. While the imagination has been a topic of discussion since at least the time of Aristotle, it has occupied an uneasy status within the discourses in which it is invoked, consistently mistrusted or renounced as a primary source of error and illusion, yet nevertheless begrudgingly recognized as a necessary but intractably obscure component of thinking.

S. T. Coleridge’s description of imagination and fancy at the end of chapter 13 of *Biographia Literaria* – the *locus classicus* on the subject – has not unjustly been called “the most obscure – and perhaps because it is obscure – the most influential critical paragraph in English literature” (Maniquis 714). Coleridge’s theory of imagination is, of course, no longer appealed to directly in critical discourse. To adopt the vocabulary of Charles S. Peirce’s “law of mind,” Coleridge’s theory of imagination has lost its particular vitality as it been absorbed within the discourses that it influenced and now sits below the level of critical visibility. That is to say, due to its pervasive influence, the
notorious obscurity of the theory of imagination offered in *Biographia Literaria* lies buried within many of the presuppositions from which criticism begins. The problems inherent in Coleridge’s theory can thus reappear in contemporary discourse without necessarily being recognized as such.

This work examines Coleridge’s writings on the imagination following the composition of *Biographia Literaria*. Coleridge was well-aware of the severe difficulties inherent in his earlier theorization, and I argue that Coleridge’s later work, particularly the “Essays on the Principles of Method,” addresses these problems and so may be understood as directed, in a round-about way, toward many of our contemporary critical presuppositions. Coleridge’s methodological writings clarify his earlier notion of imagination, as itself fundamental to the idea of method, by specifying its role within a general theory of inquiry that refuses to divide natural science from literary constructions. The imagination is moved from a psychological register pertaining to the formation of images to a logical register pertaining to the validity of a mode of inference that is not tied to the human mind. Central to Coleridge’s later theorizing is the idea of *tautegory* (one of Coleridge’s own coinages) as the designation for relations in which one and the same subject is expressed in different ways and that thereby mediates between the literal and the metaphorical. Because of Coleridge’s critical attitude toward the framework in which he placed his earlier treatment of the imagination, as well as the theoretical advances this attitude engendered, to unpack his later theorizing is to reopen the question of Coleridge’s contemporary relevance to the discourses that meticulously incorporated his theory of imagination from the *Biographia*. 
While the first part of this study is devoted to a reconsideration of Coleridge’s later methodological writings, the second part and epilogue examine the parallel implications of this work for science studies and literary criticism. Part two draws upon the writings of Edgar Allan Poe, C. S. Peirce, and Johannes Kepler to develop Coleridge’s account of the role of imagination in scientific inquiry. The epilogue suggests the means by which to explore a Coleridgean idea of imaginative criticism. As I hope to show, Coleridge’s thought is not easily circumscribed as a relic of the early nineteenth-century, but addresses foundational, unresolved issues relating to method, imagination, and inquiry.

**Coleridge’s Reception: Moving Beyond “Influence” and “Obscurity”**

The concepts of “influence” and “obscurity” not only capture something of the fate of Coleridge’s famous paragraph on the imagination, they also provide a convenient means to map the history of Coleridge’s reception.

Notices of Coleridge’s “influence” have been in abundant supply since at least the time of his death in 1834. Edgar Allan Poe, for instance, writes in his 1836 review of *Letters, Conversations, and Recollections of S. T. Coleridge*:

> If there be any one thing more than another which stirs within us a deep spirit of indignation and disgust, it is that damnation of faint praise which so many of the Narcissi of critical literature have had the infinite presumption to breathe against the majesty of Coleridge – of Coleridge – the man to whose gigantic mind the proudest intellects of Europe found it impossible not to succumb. (*Essays* 181)

Coleridge’s influence was equally apparent to John Stuart Mill, who in 1838 paired Coleridge with Jeremy Bentham as “the two great seminal minds of England in their age”
According to Mill, however, Coleridge’s influence had only begun to manifest itself:

The name of Coleridge is one of the few English names of our time which are likely to be oftener pronounced, and to become symbolical of more important things, in proportion as the inward workings of the age manifest themselves more and more in outward facts. Bentham excepted, no Englishman of recent date has left his impress so deeply in the opinions and mental tendencies of those among us who attempt to enlighten their practice by philosophical meditation. If it be true, as Lord Bacon affirms, that a knowledge of the speculative opinions of the men between twenty and thirty years of age is the great source of political prophecy, the existence of Coleridge will show itself by no slight or ambiguous traces in the coming history of our country; for no one has contributed more to shape the opinions of those among its younger men, who can be said to have opinions at all. (322)

Scholarship in the intervening years has abundantly confirmed Mill’s and Poe’s estimation of the importance of Coleridge’s thought as an intellectual center for the English-speaking world. Coleridge’s influence can now be confidently charted across a host of intellectual domains. Here are how some modern scholars assess Coleridge’s contributions to some of these central domains.

- **Literary practice:** Coleridge is credited with introducing the “greater romantic lyric,” that “earliest Romantic formal invention” that he passed on to William Wordsworth and has been widely used by poets from John Keats and Percy Shelley to W. H. Auden and Wallace Stevens (Abrams “Structure”). Besides the introduction of a poetic form of uncommon vitality, it is generally recognized that Coleridge “exerted a powerful influence on the language of subsequent English poetry, right up to our own time” (Stillinger 153). Outside of the specific sphere of poetry, Coleridge’s documented impact upon American writers such as Ralph Waldo Emerson, Henry David Thoreau, and Poe has led to the acknowledgement that “the American transcendentalist
movement could hardly be called what it is were it not for Coleridge” (Engell 70).

- **Criticism**: Beyond supplying the “most influential critical paragraph in English literature,” Coleridgean notions of *practical criticism* and *organicism* were central to the shaping of the so-called New Criticism. Even in the move away from New Critical reading practices, it has been argued that “Coleridge has had a role in shaping almost every aspect of contemporary academic criticism,” insofar as such criticism “continues to focus on the questions that mattered to him,” as “questions about the provenance of the literary work, the nature of the poetic image, the tensions between words and their referents, the social utility of criticism, the function of intellectual elites, the relations between poetry and philosophy, and the existence of a proper literary language are all, in a certain sense, Coleridgean questions” (Edmundson “Coleridge” 218). It is for such reasons that Coleridge is sometimes claimed to be the “acknowledged ‘father’ of theory itself” (Trott 69).

- **Philosophy**: Coleridge has long been recognized as a principal source for the introduction of German idealism to an English speaking audience, just as his account of the association of ideas in *Biographia Literaria* provided an accessible sketch of the history of philosophy for many nineteenth-century readers.

- **Science**: While Coleridge’s contributions to scientific discourse are perhaps less familiar than his contributions elsewhere, no less a scientific authority than Charles Sanders Peirce claimed that Coleridge’s introduction to the
Encyclopedia Metropolitana “influenced all Europe” by providing what was still, eighty years after its publication, “the prevalent definition of a science” (CP 7.54). Coleridge’s intervention at the 1833 meeting of the British Association for the Advancement of Science, consisting of a complaint that the term “natural philosopher” did not accurately describe the interests or activities of the Association’s members, prompted William Whewell – then Professor of Mineralogy and Chair of Moral Philosophy at Cambridge – to introduce the word “scientist” into the English language in order to designate “students of the knowledge of the material world” (Whewell 59).

There is no need to extend the list, though a comprehensive account would need to include, at minimum, Coleridge’s impact on political and religious discourse.

Yet alongside such accounts of Coleridge’s “influence” are notices of his “obscurity,” according to two different senses of that word. Just as with accounts of Coleridge’s influence, allegations of obscurity have been part of the critical reception from the very beginning. In the first place, Coleridge’s baroque prose and florid poetic diction have been consistently charged with a “lack of clarity in expression; uncertainty of meaning; unintelligibility” (OED “Obscurity,” def. 2b). Lord Byron complains in the “Dedication” to Don Juan that

Coleridge, too, has lately taken wing,  
But like a hawk, encumber’d with his hood,  
Explaining metaphysics to the nation,  
I wish he would explain his explanation. (41)

This is matched by contemporary critics who continue to ask:

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1 See Ross and Yeo (110-11) for more detailed accounts of Whewell’s introduction of the term ‘scientist’ as a response to Coleridge’s intervention.
Why is it, then, that Coleridge is so monumentally difficult to understand? Not only poems like the “Rime,” “Kubla Khan,” and “Christabel,” but also Coleridge’s various prose works continually frustrate many readers who struggle to understand what, exactly, he is saying. And this is a particular problem because Coleridge is continually presented to us as important primarily because of his carefully wrought distinctions. (Ferguson 631)

An examination of Coleridge’s sources, so far from removing this sense of “obscurity,” has revealed the often unacknowledged incorporation of the words and ideas of others into Coleridge’s own writings. Thomas de Quincey, in an 1834 article published shortly after Coleridge’s death, first brought attention to this so-called plagiarism issue by noting echoes of Friedrich Schelling’s work in Biographia Literaria. Subsequent scholarship on Coleridge’s sources has shown that the issue extends far beyond the mere presence of one German philosopher within the Biographia, leaving us with a picture of Coleridge’s writings as, to borrow Thomas McFarland’s phrase, “composition by mosaic organization” (27). This brings a second sense of “obscurity” to the fore: “the quality or condition of being unknown, inconspicuous, or unimportant” (OED “Obscurity,” def. 3a). The image of Coleridge’s writings as a patchwork quilt stitched together out of the work of others – even if not considered as a downright act of plagiarism – effectively makes Coleridge himself disappear. Thus, for each intellectual domain in which Coleridge’s influence can be confidently asserted, it has become increasingly difficult to isolate Coleridge’s own contributions as having much intrinsic importance or value. Here, corresponding to the list of categories of Coleridge’s contributions to different fields of inquiry given above, is a matching list of some of the doubts commentators have expressed about the genuineness of those contributions.

- **Literary practice:** Placed alongside the prodigious poetic output of his contemporaries, Coleridge’s distinct poetic contributions appear to recede into
obscurity, with one commentator judging, “Coleridge was not a great poet, although he wrote one or two great poems and undeniably possessed the abilities to have written more” (McFarland xxiii).

- **Criticism:** Many of the critical distinctions that Coleridge insisted upon are now considered untenable at best and forms of “tenacious self-mystification” (De Man *Blindness* 208) at worst. Key tenets of Coleridge’s Shakespeare criticism from his *Lectures on Literature* appear to have been taken directly and without attribution from the writings of A. W. Schlegel (Fruman). It has also been argued that Coleridge’s practical criticism of Wordsworth’s “Preface” to *Lyrical Ballads* in volume two of *Biographia Literaria* is both inaccurate and misleading (Bialostosky). The sum of these complaints has led to the view that Coleridge’s “‘critical theory’ was, to put it shortly, a hoax” (Kenner 43).

- **Philosophy:** Coleridge’s own philosophic originality as well as his competence as a reader of philosophy have been questioned. Reservations concerning Coleridge’s abilities as a philosopher range from judgments that Coleridge was not a particularly original philosopher to harsher views that “there is no evidence to suggest that Coleridge was capable of this sort of sustained thinking or that he ever attempted it” (Jackson lxii). Coleridge’s deviations from Kant, in particular, have been taken as evidence of a failure to understand the philosopher (Warnock 95-96). And in this context there is still the familiar issue of plagiarism: even significant portions of the account of the
history of the association of ideas in *Biographia Literaria* were taken from Johann G. E. Maass’ *Versuch über die Einbildungskraft* (*BL* 1:cxii-cxxiv).²

- **Science:** On those rarer occasions when they have been noticed, Coleridge’s writings on science and scientific method have generally not received favorable treatment. To quote one summary dismissal: “Coleridge’s scientific speculation – illegitimate in method and specious in conclusion – should be granted only a symbolical, not a substantive, role in any assessment of his thought. As scientific knowledge any validity it may prove to possess must be largely accidental….Coleridge’s opinions in literary and moral matters were in fact based on experience, thought, and knowledge, while his opinions on scientific matters were based merely on interest, and, doubtless, a certain amount of egotism” (McFarland 232).³

Again, this list is not complete, and would need to be extended to include political and religious domains.

The peculiarity of Coleridge’s critical reception, then, is that an increasingly well-documented account of his influence has gone hand-in-hand with a negative view of his own work that either complains of its extreme unintelligibility or simply dismisses it as confused, contradictory, or plagiarized. Maintained by these poles of “influence” and “obscurity,” a common portrait of Coleridge emerges as a thinker whose exceptional importance is difficult to reconcile with the common understanding of his written record. Looking back on the history of Coleridge’s reception, the persistent difficulty appears to

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² The strongest condemnation of Coleridge’s philosophic originality and competence are provided by Fruman and, more recently, Bode.

³ More favorable treatments are provided by Levere and Wilson, though these studies adopt the same framework responsible for McFarland’s dismissive view.
be that this understanding cannot be squared with the near-ubiquitous presence of Coleridge’s name in nineteenth- and twentieth-century intellectual history. More urgently, however, this common understanding of Coleridge bars any meaningful, alternative way of appropriating Coleridge’s thought for our own time.

Some clarity may be achieved in noting that Coleridge’s influence has been largely *practical*. Coleridge’s own work, that is to say, provides exemplary instances of practices that have been taken up and adapted by others. Examples include the introduction of a new kind of poem that was used by numerous poets from Wordsworth to Wallace Stevens, the introduction of a method of close reading that was developed by the New Critics, and the introduction of transcendental philosophy to an English-speaking audience. Charges of obscurity, on the other hand, have been aimed primarily at the *theoretical* cogency and sources of Coleridge’s own thought. His desynonymizaions were no more intelligible to his contemporaries than to his academic critics over a century later. As readers are still overwhelmingly likely to encounter Coleridge through a handful of poems and a literary life that manifestly fails to deliver on its promise of a deduction of the imagination, it is evident that, despite his influence, a full reckoning with Coleridge’s thought has yet to occur.

The most startling aspects of Coleridge’s critical reception are not the large claims concerning either his “influence” or his “obscurity”: it is the fact that a complete edition of his writings only became available in 2002. This is of greater significance than it may initially appear, insofar as Coleridge’s thought is uncommonly parcelled out amongst notebook entries, marginalia, lay sermons, letters, an encyclopedia introduction, public lectures on the histories of philosophy and literature, and a series of shorter volumes
rather than presented in any one definitive form. This collective body of work allows us
to move beyond the standard picture of Coleridge’s theory of imagination that has taken
shape primarily from readings of Biographia Literaria. As I shall argue, Coleridge’s later
writings go a long way toward removing many of the charges of “obscurity” that have
been directed toward his presentation of the imagination in the Biographia by situating
his notion of imagination, as itself fundamental to the idea of method, within a
comprehensive theory of inquiry that effectively encompasses the various domains in
which his “influence” has been felt.

Allegories of Inquiry: Odysseus and Columbus

Whether in the form of a “person on business from Porlock” interrupting the
writing of “Kubla Khan” or in the “very judicious letter” that halts the transcendental
deduction of the imagination in Biographia Literaria, some of the most noteworthy
moments in Coleridge’s texts are marked by the rhetorical figure of aposiopesis. It should
therefore come as no surprise that a perspicuous account of his theory of inquiry – one
that also indicates its contemporary relevance – may be educed from a footnote that
interrupts the forward progress of Coleridge’s “Essays on Method.”

In his discussion of the history of the study of magnetism, Coleridge draws
attention to “a variety of phenomena, as startling as they are mysterious,” that “force on
us a presentiment of [their] intimate connection with all the great agencies of nature” (F
479-80). After citing Christopher Columbus’ observation of the change of the magnetic
needle as a prime example of such a phenomenon -- “a revelation, in ciphers, the key to
which is still wanting” (F 480) -- Coleridge introduces a lengthy footnote in which he
extracts the following lines from an ode to Columbus by the sixteenth-century Italian poet Gabriello Chiabrera:

Certo dal cor, ch’ alto Destin non scelse,
Son l’ imprese magnanime neglette;
Ma le bell’ alme alle bell’ opre elette
Sanno gioir nelle fatiche eccelse:
Ne biasmo popolar, frale catena,
Spirto d’ onore il suo cammin raffrena.
Così lunga stagion per modi indegni
Europa disprezzò l’ inclita speme:
Schernendo il vulgo (e seco I Regi insieme)
Nudonocchier promettitor di Regni;
Ma per le sconosciute onde marine
L’ invitta prora ei pur sospinse al fine.
Qual uom, che torni al gentil consorte;
Tal ei da sua magion spiegó l’ antenne;
L’ ocean corse, e i turbine sostenne,
Vinse le crude imagini di morte;
Poscia, dell’ ampio mar spenta la Guerra,
Scorse la dianzi favolosa Terra.
Allor dal cavo Pin scende veloce
E di grand Orma il nuovo mondo imprime;
Nè men ratto per l’Aria erge sublime,
Segno del Ciel, insuperabil Croce;
E porse umile esempio, onde adoraria
Debba sua Gente.  (F 480-81)

The ostensible reason Coleridge provides for the interruption is that this ode, “in the strength of the thought and the lofty majesty of the poetry,” calls the reader’s attention to “the importance of speculative meditation, even for the worldly interests of mankind” (F 480). The lines themselves, however, do much more. In an attempt to convey something  

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4 The following translation is provided by Barbara Rooke, prepared for her edition of the Friend: “Certainly by the heart, which high Destiny chose not, / Magnanimous enterprises are neglected; / But fine souls chosen for fine deeds / Know how to rejoice in lofty work; / Nor does popular blame, frail chain, / Hold in check the spirit of honour. / So for a long season by unworthy means / Europe despised the famous hope: / The common people (and the Kings with them) scorning / That naked pilot, promiser of Kingdoms; / But through the unknown waves of the sea / The unconquerable prow he drove on to the end. / Just as a man, returning to his gentle wife, / So he, from his home, spread his wings; / Coursed o’er the ocean, endured the whirlwinds, / Conquered the harsh images of death; / Then, when the war of the broad sea was o’er, / He perceived before him the fabulous Land. / Then from his hollow Ship he quickly descends / And imprints the new world with a great Footstep / And no less quickly through the Air rises sublime, / Sign of Heaven, the insuperable Cross; / And offers a humble example, for that / His people must adore it” (F 481).
of that lofty majesty of Columbus’ initial voyage, Chiabrera invokes the story of
Odysseus’ journey home to Penelope. The Homeric model is used as a means of singing
of Columbus’ first trip across the Atlantic: “Just as a man, returning to his gentle wife, /
So he, from his home, spread his wings, / Coursed o’er the ocean, endured the
whirlwinds, / Conquered the harsh images of death.” However, the poet finds that the
Homeric motif can only be taken so far in its application to Columbus. Rather than a
return home to Ithaca and a fateful meeting with the suitors, Columbus finds himself on
unknown ground: “when the war of the broad sea was o’er / He perceived before him the
Fabulous Land. / Then from his hollow Ship he quickly descends / And imprints the new
world with a great Footstep.” Columbus’ voyage to the New World, the poem seems to
imply, is not only parallel in scope and importance to Odysseus’ return journey, but has
supplanted it as a new kind of tale of adventure.

Read in the context of Coleridge’s “Essays on Method,” these two narratives can
be made to stand for something far more encompassing than physical conquest and
adventure. In their broad outlines, the stories of Odysseus and Columbus provide
contrasting allegories of inquiry and method. According to the former narrative, the
inquirer is in the position of Odysseus, lost at sea, and trying to find his way back home
to Ithaca. The goal of inquiry is captured by the iconic image of a homecoming (the
Greek word is nostos) figured, crucially, as a coincidence of the point of origin of a
journey and its endpoint. Method, on such a model, allows one to chart a course from the
unknown back to the known. It points the way to a destination already stipulated in
advance, as a lighthouse might broadcast the location of a familiar port to a distant ship at
sea. By contrast, inquiry, following the very different allegory of Columbus’ first voyage
across the Atlantic, does not culminate in a homecoming; rather, as articulated through the imagery of a footprint on unknown ground, it involves the perpetual discovery of a new world. Method, on this account, assumes a role of central importance; for while it still functions as what Coleridge calls a “guiding Light” (F 493), the source of this light is internal to the navigation and does not depend on consciousness of a destination stipulated in advance. Through a dismissal of the origin/end framework, the purpose of method is not to delineate an “approach” that charts a reliable route back home -- on which paradigm we ultimately have not extended our knowledge, but only secured what knowledge we already think we possess. Rather, method becomes “constitutive” of inquiry itself, as a movement from the known to the unknown, with the inquirer learning to navigate without a compass that merely directs him to places within a predetermined navigational framework.

The figures of Odysseus and Columbus have, of course, been employed as allegories by many authors, from Dante’s use of Odysseus as false counselor through Tennyson’s admiration of Ulysses’ determination “to strive, to seek, to find, and not to yield” to Wallace Stevens’ invocation of Ulysses as “Symbol of the seeker.” My point here is not to trace the history of the use of these figures, but to see in their rough outlines a formal resemblance to two different models of inquiry. To see this is to interpret the Odysseus and Columbus models as allegories in Coleridge’s precise sense of the term as describing a “picture language” which bears no essential connection to the “abstract notion” that it “translates” (LS 30). As allegories in this sense, one could equally well replace their iconic imagery with other examples. To borrow from American popular culture, Odysseus may be recast as Dorothy from the Wizard of Oz, lost in a strange
world and trying to find her way back home to her Kansas farm, while Columbus’ footprint on the beaches of San Salvador may be replaced by Neil Armstrong’s “one small step for man, one giant leap for mankind” that resulted in the first boot-print on the surface of the moon.

The peculiar power of the Odysseus model is that it seems to underwrite many of our entrenched and commonplace accounts of inquiry across several intellectual fields. On such a model, inquiry begins with an antecedent paradigm to which any acquired knowledge must be fitted (this initial paradigm is the *origin*). Inquiry concludes when the acquired knowledge or insight is made to fit the original framework/paradigm, thereby confirming or corroborating the antecedent model of intelligibility. The Odysseus model is one whereby we *map* future information or discoveries within a previous conception of how that information must fit together. The particular danger of the model is that it is unable to truly *extend* knowledge of the meaning of the information we acquire in our pursuit of it.

Odyssean inquiry may be conducted in any number of guises, in that the “origin” and “end” may take on any variety of different manifestations. In the domain under particular consideration here, that of literary criticism and theory, the Odysseus allegory stands behind the standard view wherein literary texts (considered as *ends*, or the objects of inquiry) are paradigmatically regarded as expressions or reflections of something antecedent to their composition (i.e. their *origin*). This origin is typically held to be responsible for the text’s form and content. In perhaps the earliest theory in literary criticism, the Platonic notion of an ideal form or *eidos* serves as a type of “origin” – an ontological form to which any given object of inquiry or “end” must be seen as ultimately
“participating” in. In such cases knowledge of the object of inquiry is grounded in and ultimately fitted to knowledge of the ideal form. Examples of the Odyssean paradigm of inquiry in literary criticism and theory abound. The basic framework is the same whether the original is taken to be a Platonic *eidos*, the author’s conscious thoughts or feelings, the author’s unconscious, the various power structures of the time and place in which the literary text was composed, and so on down a long, familiar, and ever-expanding list. All these conceptions may serve as “origins” on which to map any subsequent reading of a literary text: the text ultimately and reductively “reflects” or “confirms” the author’s conscious thoughts, his or her unconscious, prevalent power structures operative in the society in which the text was composed, and so on.

As indicated above, Chiabrera’s ode argues for Columbus’ story to supplant that of Odysseus. Note, however, that we may regard the latter allegory of inquiry as useful for *measuring* the success of the former. Because the Odysseus model is one whereby we see the origin and end of inquiry as ultimately consistent, it furnishes the fundamental impetus to assess the results of an inquiry in light of our starting point, and this methodological principle is surely valuable. Indeed, we may use this principle in the evaluation of the conclusions of Coleridge’s own, more paradigmatically Columbian, form of inquiry, especially as it is practiced in his “Essays on Method.” Thus, just as the basic idea behind the Odysseus model of inquiry can be used to measure the success of the Columbus model, so does this work elaborate the Columbus allegory of inquiry as it was formulated by Coleridge. It is not that the Columbus allegory somehow renders invalid inquiry conceptualized under the Odysseus allegory. Rather, in showing how inquiry can be re-thought or re-described under a different model, Coleridge’s writings
shed light on a series of issues of considerable importance relating to the interplay of method and imagination.

The attempt to challenge the predominant model of inquiry in terms of an allegory that draws upon voyages of exploration may bring to mind the frontispiece to Francis Bacon’s 1620 *Instauratio Magna*, the work containing his *Novum Organon*. The frontispiece depicts a ship sailing beyond the pillars of Hercules as representatives of the supposed limits of the natural world.

![Figure 1. The frontispiece to Bacon's Instauratio Magna.](image)

The connection to Bacon’s *New Organon* is not accidental. Coleridge inscribed the following note in a copy of Schelling’s *Philosophical Writings*:

I believe in my Depth of Being, that the three greatest Works since the introduct[ion] of Christianity are—Bacon’s Novum Organon, & his other Works as far as they are Commentaries on it—Spinoza’s Ethics, with his Letters &c as far as they are Comments on his Ethics—and Kant’s Critique of the pure Reason, & his other works as Commentaries & Applications of the same. (*CM* 4:403)

In the wake of Thomas McFarland’s synoptic reading of Coleridge as caught between two fundamentally incompatible philosophical positions, the appearance of Spinoza and
Kant are be expected in Coleridge’s own short list of greatest works. The appearance of Bacon’s *New Organon* is surprising only if our knowledge of Coleridge is circumscribed by his early poetry and by *Biographia Literaria*. Coleridge’s imaginative take on Bacon’s idea of experimentalism\(^5\) is a large part of what allows Coleridge to sail past the limits imposed by the subjective/objective framework that Kant and Spinoza are said to represent. In so doing, Coleridge, as we will see, additionally sails past other familiar binaries, whether between reason and imagination or science and poetry.

**The Plan of This Work and A Brief Note on Its Methodology**

My aim is this study is not merely to think *about* Coleridge’s texts but additionally to think *with* them. This work thus goes against the grain of contemporary criticism insofar as it does not attempt to *account for* Coleridge’s writings, Odysseus-fashion, as an illustration or exemplification of any number of pre-articulated theoretical or historical positions. It is noteworthy that while there are no shortages of “deconstructive” or “historicist” or “psychoanalytic” readings of Coleridge, it is more difficult to find a “Coleridgean” reading of Coleridge, and nearly impossible to find “Coleridgean” readings of contemporary theoretical approaches.\(^6\) This lack of “an interpenetration both ways” – to borrow a phrase from William Carlos Williams’ *Paterson* (4) – does a disservice both to Coleridge’s texts and to the theoretical approaches through which they are often read. On the one hand, Coleridge’s texts are not explored as a locus of new insight either because it is assumed that criticism already

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\(^5\) As Blake says of the imagination in *All Religions are One*: “As the true method of knowledge is experiment the true faculty of knowing must be the faculty which experiences” (1).

\(^6\) Mark Edmundson makes the same point with respect to “readings” of William Blake in his “Against Readings” (61). My treatment of Coleridge accords with the kind of criticism that Edmundson calls for.
possesses an adequate understanding of Coleridge’s thought (as, perhaps, distilled by the
New Critics and debunked by everyone thereafter) or because his texts are already
circumscribed within a set of antithetical theoretical commonplaces. On the other hand,
and by the same token, the validity and soundness of these commonplaces, treated as
what Coleridge calls “new spicy hot Gingerbread” (CN 1:1622), are not brought into
question and criticism thereby risks the “blindness of self-complacency” (LS 30) that both
it – and Coleridge – so frequently attack.

This work therefore attempts to provide an overview of Coleridge’s
methodological writings that simultaneously exemplifies and develops the principles that
support them. As Coleridge himself notes, “where the habit of Method is present and
effective, things the most remote and diverse in time, place, and outward circumstance,
are brought into mental contiguity and succession, the more striking as the less expected”
(F 455). Accordingly, this study is not limited to texts by Coleridge but ranges from an
examination of a 1611 treatise by Johannes Kepler on the hexagonal structure of
snowflakes to a discussion of a poem by Wallace Stevens on a bird’s cry in early March
heralding the advent of spring.

The first part – “Reimagining Coleridge” – examines how Coleridge’s notion of
imagination is placed within a comprehensive theory of inquiry in his work following the
composition of Biographia Literaria. Coleridge aligns the operation of the secondary
imagination with a specific, logical function: the eduction of an “idea,” according to
Coleridge’s precise sense of that term as a necessarily tautegorical relation – one that
expresses the same subject, but with a difference – that serves to guide inquiry. More
precisely, the imagination brings forth an idea by dismissing the imagery that obscures or
distorts it. I emphasize throughout how Coleridge’s “Essays on Method” move him away from the major oppositions that fettered his earlier work and that still linger with us, particularly the opposition between science and poetry in its relation to a metaphysical framework that divides the world into its objective and subjective components.

One of the key insights of the dissertation is that Coleridge himself introduced the tautegorical paradigm as a new methodological framework for connecting the ideas and contributions of thinkers from disparate epochs and with apparently disparate backgrounds and motivations. Part two – “The Scientific Imagination in Coleridge, Peirce, and Kepler” – employs such a framework to examine how Coleridge’s account of the operation of the secondary imagination is consonant with Peirce’s idea of abduction as a mode of inference, distinct from inductive and deductive reasoning and aligned with the play of “musement,” through which scientific theories and conceptions are given birth. Notably, Coleridge and Peirce each single out the work of Johannes Kepler as best exemplifying the ideal of the scientist as imaginative investigator or abductive scientist.

The testimony of these writers is used to retrospectively illuminate, via principles that Coleridge was the first to explicitly articulate, the methodological and imaginative underpinnings of Kepler’s 1611 *Six-Cornered Snowflake*. My analysis of how these thinkers exemplify Coleridge’s ideas about method and inquiry – but differently in each case – shows how an analysis of historical connections and influences can dovetail with, and be augmented by, the kind of tautegorical explication performed throughout the dissertation.
The epilogue begins to outline the contours of a theory of reading appropriate to Coleridge’s contention that the constructions of literature are themselves methodical.\footnote{As will be evident, this argument is heavily indebted to the work of Leroy Searle. See especially his “The Conscience of the King: Oedipus, Hamlet, and the Problem of Reading” and “From Inference to Insight: A Peircean Model of Literary Reasoning.”}

This requires an expansion of the conception of the literary text from its being merely an object about which to reason, “dependent on more, and more fugitive causes” or supposed originals, to include a notion of the text as itself an instance of thinking, one with “a logic of its own” that is informed by, but not reducible to, its fugitive causes (\textit{BL} 1:9). In his later methodological work Coleridge emphasizes how exclusive reliance on relations of “time” and “place” is indicative of unimaginative, and so deadening, intellectual work. In a Coleridgean notion of imaginative criticism, the object is not to use the relations of time and place to account for a literary text, but to educe and then demonstrate how the insights offered by imaginative literature may be developed and extended to render intelligible other phenomena. To borrow Kenneth Burke’s memorable phrase, implicit in Coleridge’s methodological writings is a theory of imaginative literature as “equipment for living” (“Literature” 1012).
Yet that I may fulfil the original scope of the Friend, I shall attempt to provide the preparatory steps for such an investigation in the following Essays on the Principles of Method common to all investigations: which I here present, as the basis of my future philosophical and theological writings, and as the necessary introduction to the same. And in addition to this, I can conceive no object of inquiry more appropriate, none which, commencing with the most familiar truths, with facts of hourly experience, and gradually winning its way to positions the most comprehensive and sublime, will more aptly prepare the mind for the reception of specific knowledge, than the full exposition of a principle which is the condition of all intellectual progress, and which may be said even to constitute the science of education, alike in the narrowest and in the most extensive sense of the word.

- Samuel Taylor Coleridge, from the 1818 *Friend*
§1 – Reimagining Coleridge: Introduction

S. T. Coleridge records his initial criticism of Isaac Newton’s *Optics* in the following passage from a well-known 1801 letter:

Newton was a mere materialist—*Mind*—in his system is always passive—a lazy Looker-on on an external World. If the mind be not passive, if it be indeed made in God’s Image, & that too in the sublimest sense—the Image of the *Creator*—there is ground for suspicion, that any system built on the passiveness of the mind must be false, as a system. (*CL* 2:388)

Read not for its appositeness as a critique of Newton so much as a concise summary of Coleridge’s own critical preoccupations, this passage brings two prominent strands of Coleridge’s thought into sharp focus: (1) a belief in the mind as inherently creative and (2) a concern with the foundational principles upon which systems are built. While Coleridge continues the letter by acknowledging that mere opinions are as “utterably silly & contemptible” as “sticking up little *i* by itself *i* against the whole alphabet,” his stated desire “to let my Opinions & my Proofs go together” (*CL* 2:388) provides a mission statement for his career. First and foremost, Coleridge’s letter prompts the need to clarify what, exactly, is meant by the statement that the mind is creative. Second, the letter raises the issue of how to move from the statement affirming the mind’s essential creativity to a “proof” of its validity as a principle. Finally, the letter raises the question of what a philosophical system built upon the creativity of man and God might look like.

Coleridge’s most prominent attempt to describe and establish the existence of a creative power is found in what has become his most canonical work, the *Biographia Literaria*. The account of the imagination that he offers in that work has been both praised for its influence and condemned for its obscurity. The notorious obscurity of the content of Coleridge’s famous passage has only multiplied as criticism has examined its
origin (a patchwork doctrine possibly plagiarized from several German sources), proof (the deduction that was to secure its validity is left unfinished), and utilization (the precise relation of the theory of imagination articulated in the first volume of the Biographia to the practical criticism in the second volume is contested). The failure to either ground or properly explain the imagination in Biographia Literaria is echoed by Coleridge’s inability to complete the Logosophia, the name he intended to attach to his comprehensive system.

In chapters 1-7, I examine Coleridge’s work on the imagination following the 1815 composition of Biographia Literaria through the “Essays on the Principles of Method” published in the 1818 edition of The Friend, a period of heightened productivity that also includes The Statesman’s Manual, “Hints Toward the Formation of a More Comprehensive Theory of Life,” the general introduction to the Encyclopedia Metropolitana, preparation for public lectures on the history of philosophy, as well as numerous notebook entries, letters, and book marginalia. This body of work has not played a leading role in the common understanding of Coleridge. Criticism has either tended to ignore it, using the earlier Biographia Literaria as the chief representative of Coleridge’s thought, or it has narrowly contextualized individual titles by relating them to a single discourse, as for example The Statesman Manual has been situated within its immediate political context as a response to the starvation and rioting occurring in England following the Napoleonic Wars. As informative – and necessary – as such contextualization is, a sense of how these considerably varied (whether by content, genre, or style) titles relate to one another is still lacking. I argue that these writings, to borrow a

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8 Hereafter shortened to “Essays on Method,” or, more simply, “Essays.”
9 See Daniel Fried’s carefully argued “The Politics of the Coleridgean Symbol.”
phrase from the “Essays on Method,” may be seen to display “A PRINCIPLE OF UNITY WITH PROGRESSION” (F 476) with respect to Coleridge’s own thinking. More particularly, I argue that Coleridge’s writings in this period clarify his earlier theorization of the imagination by situating it within a comprehensive theory of inquiry that avoids many of the difficulties associated with the deduction of the imagination in Biographia Literaria.

In the first section below, I review the major problems with Coleridge’s account of imagination from Biographia Literaria, with attention as to how these problems have generalized into a damagingly incomplete notion of “Coleridge.” In the second section, I outline my argument that Coleridge’s work through the publication of the “Essays on Method” addressees and solves these difficulties. Coleridge’s idea of the imagination does not lead to a system. As we will see, to propound a system to is to betray the idea of the imagination by cutting short its function within a conception of method that is, by its very nature, indefinitely progressive. I thus hope to validate Coleridge’s claim that the “Essays on the Principles of Method” – and not Biographia Literaria – most properly serves as “the basis of my future philosophical and theological writings, and as the necessary introduction to the same” (F 446).

§1.1 – The Imagination in Biographia Literaria: Goals and Difficulties

Biographia Literataaria does not tackle the issues raised in the 1801 letter head-on. It defers the construction of a system for a sustained investigation into the manifestation of a creative power within poetry, the discipline that most acutely shaped Coleridge’s reflections on the imagination and whose very name, it is always worth remembering, derives from an ancient Greek verb meaning “to make.” Coleridge notes in the opening
paragraph that the *Biographia* will offer “the statement of my principles in Politics, Religion, and Philosophy, and the application of the rules, deduced from philosophical principles, to poetry and criticism” (*BL* 1:5). The philosophical principles that Coleridge seeks to establish are the existence of the imagination and fancy as two distinct mental faculties. The existence of these faculties are meant to provide a solid foundation with which to examine and judge claims concerning both the nature of poetic diction and the character of the poet that were articulated in William Wordsworth’s “Preface” to the 1800 edition of *Lyrical Ballads*.

The background involving Wordsworth is, as ever with Coleridge, more complicated than he lets on. *Lyrical Ballads* was originally published anonymously in 1798 as a joint-venture between the two poets. While the majority of the poems were composed by Wordsworth, it is noteworthy that Coleridge’s “The Rime of the Ancyent Marinere, In Seven Parts” opened the volume. Wordsworth included his own name as author in the 1800 edition, moved the “Rime” to a much less prominent position, and added a “Preface” explaining the aim and purpose of his own poems. While in 1802 Coleridge regarded the 1800 “Preface” as “half a child of my own Brain,” he suspected “that some where or other there is a radical Difference in our theoretical opinions respecting Poetry -- / and this I shall endeavor to go to the Bottom of … and hope to lay down some plain, & perspicuous, tho’ not superficial, Canons of Criticism respecting Poetry” (*CL* 2:829-30). The direct cause behind the writing of *Biographia Literaria* was not Wordsworth’s 1800 “Preface” to *Lyrical Ballads*, however, but the more
philosophically inflected claims made by Wordsworth in the 1815 “Preface” to his
Poems. 10

It is within a brief discussion of his first encounter with Wordsworth’s poetry that
Coleridge first introduces the imagination in Biographia Literaria. Coleridge describes
his initial impression of the power of Wordsworth’s verse as consisting in

the union of deep feeling with profound thought; the fine balance of truth in
observing with the imaginative faculty in modifying the objects observed; and
above all the original gift of spreading the tone, the atmosphere, and with it the
depth and height of the ideal world around forms, incidents, and situations, of
which, for the common view, custom had bedimmed all the lustre, had dried up
the sparkle and the dew drops” (BL 1:80).

The imagination restores the luster and sparkle of common objects, incidents, and
situations by infusing them with the light of the ideal. It is not that these objects are
themselves dull and opaque; rather, custom only makes them appear to be so. The initial
role Coleridge claims for the imagination is as a revitalizing, and hence revelatory,
power.

Coleridge’s initial problem in labeling this power imaginative is that it is difficult
to reconcile with the common understanding of the faculty identified variously as
imagination or fancy. Though not cited by Coleridge, the following passage from Thomas
Hobbes’ Leviathan exemplifies how the terms “imagination” and “fancy” were used
more-or-less synonymously to refer to a seemingly different power:

For after the object is removed, or the eye shut, we still retain an image of the
thing seen, though more obscure than when we see it. And this is it, the Latins call
imagination, from the image made in seeing, and apply the name, though
improperly, to all the other senses. But the Greeks call it fancy, which signifies
appearance, and is as proper to one sense as to another. IMAGINATION therefore is
nothing but decaying sense, and is found in all men and many other living
creatures, as well sleeping as waking …. This decaying sense, when we would

10 For an overview of these issues as they pertain to the composition of Biographia Literaria, see
Modiano’s “Coleridge as Literary Critic” (205-216).
express the thing itself (I mean fancy itself), we call imagination, as I said before; but when we would express the decay, and signify that the sense is fading, old, and past, it is called memory. So that imagination and memory are but one thing, which for diverse considerations hath diverse names. (8-9)

Coleridge’s solution is to desynonymize “imagination” from “fancy” by showing that the revitalizing power – imagination – evident in Wordsworth’s poetry is distinct from the image-forming power – fancy – that Hobbes associates with memory and decay.11 As Coleridge summarizes his hopes for Biographia Literaria:

were it once fully ascertained that this division is … grounded in nature … the theory of the fine arts, and of poetry in particular, could not, I thought, but derive some additional and important light. It would in its immediate effects furnish a torch of guidance to the philosophical critic, and ultimately to the poet himself. (BL 1:84-85)

The two volumes of the Biographia divide this labor neatly in half: volume one attempts to establish imagination and fancy as two distinct faculties, while volume two puts that distinction to work in the practical criticism of Wordsworth’s poetry.

Coleridge’s examination of the faculty variously called imagination or fancy within the doctrine of association of ideas from Aristotle to David Hartley reveals that “fancy” as an inherently passive power is incapable either of supplying an adequate theory of sensory perception or of accounting for the characteristic quality of Wordsworth’s verse. Unable to find support within this tradition for his contention that the imagination is a distinct faculty, Coleridge turns, most prominently, to the work of Immanuel Kant, J. G. Fichte, and J. W. Schelling in the attempt to establish the imagination as an essentially creative power. The first volume of Biographia Literaria closes with a chapter on “the nature and genesis of the imagination or plastic power” (BL

11 Blake’s 1810 “A Vision of the Last Judgment” reveals a close alignment to Coleridge on this point, especially insofar as he contrasts “Fable or Allegory,” as “Formd by the Daughters of Memory” with “Vision or Imagination” (554).
1:168) in which Coleridge attempts to provide a “proof” of the existence of the imagination by means of a Schelling-styled deduction of the faculty.

The notorious fact is that the deduction never happens. Coleridge interrupts it with a fictitious “letter from a friend” that complains of both the difficulty of the enterprise as well as the impropriety of including it within a literary life. As I argue in §2.3, the complaint of impropriety in the “letter from a friend” provides a convenient excuse – but is not the reason – for abandoning the enterprise. The letter itself sufficiently marks Coleridge’s own recognition of the problems inherent in the very attempt to provide a “deduction” that follows the work of Schelling. In view of “this very judicious letter,” Coleridge postpones the deduction to a “future publication” that never materialized, contenting himself with “stating the main result of the Chapter” in two brief paragraphs that articulate the differences between imagination and fancy. Coleridge simply writes:

The IMAGINATION then I consider either as primary, or secondary. The primary IMAGINATION I hold to be the living Power and prime Agent of all human Perception, and as a repetition in the finite mind of the eternal act of creation in the infinite I AM. The secondary I consider as an echo of the former, co-existing with the conscious will, yet still as identical with the primary in the kind of its agency, and differing only in degree, and in the mode of its operation. It dissolves, diffuses, dissipates, in order to re-create; or where this process is rendered impossible, yet still at all events it struggles to idealize and to unify. It is essentially vital, even as all objects (as objects) are essentially fixed and dead.

FANCY, on the contrary, has no other counters to play with, but fixities and definites. The Fancy is indeed no other than a mode of Memory emancipated from the order of time and space; and blended with, and modified by that empirical phenomenon of the will, which we express by the word CHOICE. But equally with the ordinary memory it must receive all its materials ready made from the law of association. (1:304-05)

The word “controversial” does not begin adequately to capture the ensuing critical difficulties.
In the first place, the brevity of Coleridge’s description leaves considerable doubt over the actual position he advocates. Identical in the kind of their agency, primary and secondary imagination are said to differ in “degree” in that the primary imagination, as the agent of perception, functions continuously; and they differ in “mode” since the operation of the primary imagination is neither self-conscious nor voluntary. The secondary imagination “dissolves, diffuses, dissipates” what is provided by the primary imagination, consciously “recreating” it in a manner that echoes the activity of perception. Coleridge promises a further explication of these “powers and privileges of the imagination” that will take place in a “critical essay on the uses of the Supernatural in poetry and the principles that regulate its introduction” (BL 1:306). Such an essay, however, was either never written or lost, seemingly placing the critic in the position summarized by Arden Reed:

[T]he secondary imagination is obliged to ‘dissolve, diffuse, dissipate’ original perceptions before ‘recreating’ them, in a way that ‘idealizes and unifies.’ Precisely how this is to occur Coleridge does not indicate; indeed he says nothing more specifically about the ‘secondary imagination’ in chapter XIII or anywhere else. (89)

*Biographia Literaria* appears to leave the notoriously cryptic theory to stand on its own.

In the second place, the absence of “proof” threatens to turn Coleridge’s principles back into those “silly & contemptible” opinions that he complained of in his letter from 1801. The danger is that *Biographia Literaria; Or, Biographical Sketches of my Literary Life and Opinions By S. T. Coleridge, Esq.* would then too glaringly resemble something like the similarly digressive and seemingly immethodical *Life and Opinions of Tristram Shandy, Gentleman*, were it in fact written by Tristram rather than Laurence
Sterne. The missing deduction has a bearing on the coherence of Biographia Literaria as a whole. It raises not only the particular question of the validity of Coleridge’s criticism in volume two, but also more general questions concerning the proper relations between philosophy, criticism, and poetry. As Paul Hamilton has written: “The problem at the heart of Biographia is therefore central to any critical theory which lays claim to philosophical respectability or to any critical practice which claims to say anything on its own account” (Poetics 11). The generally well-received practical criticism of volume two has led many critics to the conclusion that the attempt to base such criticism on antecedently established philosophical principles is neither necessary nor viable.

In the third place, the attempted deduction of the imagination, more than any other section of Biographia Literaria, raises the so-called plagiarism issue through its semi-acknowledged dependence upon and translation of substantial portions of the work of Schelling. James Engell and W. Jackson Bate, the editors of the most recent scholarly edition of Biographia Literaria, estimate that up to 40% of the content of chapter 12 and

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12 Parallels between Biographia Literaria and Tristram Shandy run deeper than a similarity between their full titles. Most obviously, Sterne’s description of progression through digression might be taken as a depiction of the method of Biographia Literaria: “The machinery of my work is of a species by itself; two contrary motions are introduced into it, and reconciled, which were thought to be at variance with each other. In a word, my work is digressive, and progressive too,—and at the same time” (52). Whereas the Biographia is missing a transcendental deduction of the imagination, is marked by items such as a self-proclaimed “chapter of digressions and anecdotes” (BL 1:168), and contains several chapters (“Satyrane’s Letters” and the “Critique of Bertram”) that are largely filler and inserted so as to make both volumes roughly equal in size, so is Tristram Shandy missing chapter 24, marked throughout by use of the rhetorical figure of apophasis, and is occasionally punctuated by seemingly extraneous chapters. Sterne frequently makes unacknowledged uses of other writers, as, for example, Tristram’s vow to avoid borrowing from other writers -- “Shall we forever make new books, as apothecaries make new mixtures, by pouring out of one vessel into another? Are we forever to be twisting and untwisting the same rope? for ever in the same track -- forever at the same place…..”(239) -- is itself taken without attribution from Burton’s Anatomy of Melancholy. Though one might argue that in this case, Sterne’s readers are presumably already familiar with Burton’s sentence, and so can enjoy the joke where the statement becomes its illustration. After noting “that metaphysics and psychology have long been my hobby-horse,” Coleridge even includes some reflections on hobby-horses, that most Shandean of topics, within the Biographia (BL 1:85).
20% of the content of chapter 13 consist in either directly translated or summarized but reworded material from German sources (*BL* 2:253-54).

Finally, Coleridge’s failure to provide a deduction of the imagination has persistently been linked to his inability to complete an exposition of his perpetually promised system. That is to say, the uncompleted deduction in *Biographia Literaria* is often taken as emblematic of larger, fundamentally irresolvable conflicts that cannot be held together harmoniously within the scope of Coleridge's projected system.

The most influential reading along these lines remains Thomas McFarland’s *Coleridge and the Pantheist Tradition*. In McFarland’s analysis, only two genuine philosophical positions are possible. The first begins by recognizing the primacy of the self (“I AM” philosophies, in McFarland’s shorthand) and is exemplified in the thought of Plato, Descartes, Kant, and the existentialists. The second position begins by recognizing the primacy of nature (“IT IS” philosophies) and is expressed most forcefully in the pantheism of Spinoza. Situating his discussion of Coleridge within the German *Pantheismus-Streit*, McFarland argues that “the inability either really to accept or wholeheartedly to reject pantheism is the central truth of Coleridge’s philosophical activity” (107). This incommensurability is transferred from a metaphysical to a psychological level in Seamus Perry’s *Coleridge and the Uses of Division*. Perry argues that Coleridge’s output is best understood not as an attempted solution to a problem but as the simultaneous exploration of two mutually exclusive drives:

> Coleridgean failure is the fruit of a genuine, irresolvable division in possible apprehensions of reality….There is at work a persistent opposition of intellectual and imaginative commitments, between the appeals of unity and the discernment of differences, between things considered as part of some whole and things regarded and enjoyed in their own right. (23)
This “experience and exploration of a muddle” (7) constitutes, for Perry, the general pattern that underlies Coleridge’s poetry, criticism, epistemology, and ethics.

Such readings presume that the difficulties Coleridge encounters in his attempted deduction are so general that they cannot readily be overcome. That is to say, the choice of a Schelling-styled deduction as the appropriate method by which to establish the validity of the imagination is not contested because the problems that emerge are seen as foundational to any attempt to appropriately ground a system upon the essential creativity of both man and God.

These four difficulties that have emerged in the critical examination of Biographia Literaria seem to reveal the impossibility of Coleridge’s 1801 goals of providing a “proof” of the imagination and of using that concept as the secure basis for a system.

§1.2 – From Biographia Literaria Through “Essays on Method”: An Overview of the Following Chapters

Coleridge inscribed the following note in his son Derwent’s copy of volume three of the 1818 edition of The Friend:

As there can be no Vanity attributed to an Author’s comparison of one work with another, both being his own, I do not fear telling you, that … in point of value the following pages from p.67 to p.265 outweigh all my other works, verse or prose. I therefore urge you to a thoughtful perusal of them. I entreat you to study them. (CL 4:885)

The bulk of these pages are comprised by the “Essays on Method,” the outgrowth of Coleridge’s 1817 work on the planning and organization of the Encyclopedia
Coleridge’s estimation of the value of these writings is not confined to this inscription. In a January 1818 letter, Coleridge refers to an earlier draft of what became the “Essays” as “that which I valued more than all my other prose writings” (CL 4:823). The claim is repeated in a letter from February of the same year, in which Coleridge describes the same draft as “an Essay, which cost me four months’ incessant labor, and which I valued more than all my other prose writings, taken collectively” (CL 4:825). Coleridge even introduces the “Essays on Method” within The Friend as “the basis of my future philosophical and theological writings, and as the necessary introduction to the same” (F 446).

Coleridge’s repeated statements indicating the importance of these writings have not been realized in the substantial body of Coleridge criticism. Content to treat the earlier Biographia Literaria as the chief representative of Coleridge’s thought, criticism has not repudiated Coleridge’s valuation so much as simply neglected his later methodological writings.

The reasons behind the comparative lack of scholarly attention given to Coleridge’s “Essays on Method” deserve some notice. It is at least partially attributable to a simple issue of access. The canonical status of Biographia Literaria – not only within Coleridge studies more narrowly, but also more generally within both Romanticism and the history of theory and criticism – has ensured its ready availability for twentieth- and twenty-first century readers. Nothing comparable to J. Shawcross’ 1907 scholarly edition of Biographia Literaria containing the “Essays on Method” was available until the publication of The Friend (1969) within The Collected Works of Samuel Taylor

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13 Accounts of Coleridge’s work with the Encyclopedia Metropolitana may be found in Jackson and Jackson (576-77; 625-28), CL 4:723-25, and Rooke (xcii-cv).
Coleridge (1969-2002). Even within the Collected Works as a whole, the Biographia is the only text additionally issued as a paperback, thus ensuring its relative affordability, availability, and even adaptability as a book for classroom use. The critical neglect of the “Essays on Method” is also at least partially attributable to their peculiar publication history. The “Essays” first appeared within the third volume of the 1818 edition of The Friend, a work that was originally published as a periodical in 1809-10 and first issued as a book in 1812. As an 1818 add-on, Coleridge’s “Essays” do not fit seamlessly within the confines of The Friend in either its original or reissued versions. Critics interested in the political contexts surrounding the various editions of The Friend have found little use for the “Essays,” while other critics have treated the 1818 text as if the “Essays” were simply commensurate with material written several years earlier.  

Finally, interest has been obliquely directed away from the “Essays” through the recurrent and persistent claim, made by some of Coleridge’s most influential critics, that Coleridge’s thought does not change in meaningful ways. I. A. Richards, for instance, states in his 1934 Coleridge on Imagination that “[i]n much that Coleridge wrote later … [h]e seems to be merely re-formulating old problems” (20). Thomas McFarland’s argument in his 1969 Coleridge and the Pantheist Tradition that the central truth of Coleridge’s thought lies in his inability to accept or reject pantheism is the most prominent example of this strand of

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14 Deirdre Coleman’s Coleridge and The Friend is an instance of the former type of book, while Jerome Christensen’s Coleridge’s Blessed Machine of Language is an instance of the latter.

15 Kathleen Coburn both highlights and contests this claim in the “Foreword” she wrote for a later reprinting of Richards’ book. Coburn perceptively writes: “I should like to put in a word here for the ‘Essay on Method’ in Encyclopedia Metropolitana, or the third volume of The Friend. For one thing this is one of the freshest signs of that resurgence of creative power that came with his finding a haven at Highgate; and it provides also the clearest way out of the metaphysical muddle of the undigested Schelling passages in the Biographia, in fact celebrates his abandonment of Schelling altogether. The ‘Essay on Method’ I find a most useful and significant document” (xvii). As the general editor of Coleridge’s Collected Works as well as the Notebooks, Coburn’s familiarity with Coleridge’s writings remains unsurpassed. My reading of Coleridge accords entirely with Coburn’s sense of the importance of the “Essays on Method.”
thought from the second-half of the twentieth century, while Seamus Perry’s reading of Coleridge’s output in his 1999 *Coleridge and the Uses of Division* as the experience and exploration of a muddle provides the most recent instance. If Coleridge’s thought remains static, or consists largely in the mere refining of positions laid down several years earlier, there is little reason to venture beyond the familiar confines of *Biographia Literaria*. While these three reasons do not fully explain its neglect, they do help explain how Coleridge’s “Essays on Method” have by-and-large remained below the level of critical visibility.

Just how little impact the “Essays on Method” have had on the general conception of Coleridge is evident from three books – one an anthology of Coleridge’s writings, the other two collections of critical essays – published in the wake of the completion of the *Collected Works*. The 2002 *Cambridge Companion to Coleridge* consists of 15 articles divided between 3 large topics or parts – “Texts and Contexts,” “Discursive Modes,” and “Themes and Topics.” The “Essays on Method” are not singled out for special attention: they are neither among the texts discussed in the first part nor is “method” one of the topics considered in the third part. Coleridge’s “Essays on Method” are referred to by name only once, where Angela Esterhammer, in an article on “The Critic,” incorrectly notes that by method, Coleridge refers to an act of the mind that allows one “to proceed from random phenomena to organized principles” that are “comparable to Kant’s forms of understanding” (153). Outside of this singular reference to their name, the “Essays” are only quoted twice in the entire volume: once in support of Coleridge’s discrimination between good and bad styles of discourse (115) in an article on Coleridge as talker, and once for a phrase Coleridge uses to describe Shakespeare in the aforementioned “The
Critic.” Coleridge’s “Essays on Method” also manage to slip through the cracks in the much more comprehensive 2009 Oxford Handbook of Samuel Taylor Coleridge. The Oxford Handbook consists of 37 articles divided into similar parts: “Biography,” “The Prose Works,” “The Poetic Works,” “Sources and Influences,” and “Reception.” The eleven articles that deal with “The Prose Works” attempt to be comprehensive in their coverage. Rather than devote a single article to each of Coleridge’s major works, individual titles are grouped thematically. Biographia Literaria is considered alongside the Essays on the Principles of Genial Criticism, for instance, while The Statesman’s Manual, Aids to Reflection, and On the Constitution of Church and State are also treated together.16 The “Essays on Method” – relevant to all groupings but properly belonging to no one collocation of texts – are not singled out for attention within any of these groupings. The article focusing on The Friend -- Michael Kooy’s “Coleridge as Editor: The Watchman and The Friend” -- simply mentions that Coleridge added the “Essays on Method” to the 1818 The Friend but does not analyze or discuss their content at all (160). Kooy’s attention is directed to the changing political contexts of the publication and republications of The Friend and so he bypasses detailed consideration of the “Essays” to highlight the shift from Coleridge’s wartime, liberal republicanism to his development of a notion of Christian communitarianism. The same general neglect is apparent in the 2004 Coleridge’s Poetry and Prose: A Norton Critical Edition, the bulk of which consists of an anthology containing 642 pages from a variety of Coleridge’s texts. Selections from Biographia Literaria span 175 pages, while selections from the “Essays on Method”

16 While useful for showing Coleridge’s development of themes within a given topic or context, such grouping constitutes another instance of the problem identified above, where the development of Coleridge’s thought from one apparently dissimilar text to another is obscured by failing to consider their sequential relation.
occupy a mere 8 pages. Despite Coleridge’s repeated statements concerning their immense value in general, and his particular hope that they would serve as the introduction to his thought, consideration of the “Essays on Method” continue to play little-to-no role in shaping the common understanding of Coleridge.

In this work I argue that the “Essays on Method” justify Coleridge’s estimation of their value in large part because they solve the four major critical difficulties identified in response to Coleridge’s account of the imagination from *Biographia Literaria*: (1) the account of imagination offered is hopelessly obscure, (2) the absence of a completed proof of the existence of a creative power renders Coleridge’s critical opinions invalid, (3) Coleridge’s doctrine of imagination is plagiarized from German sources, and (4) the difficulties encountered in the attempted deduction are so fundamental that they cannot be resolved.

In the first place, these writings clarify and develop Coleridge’s earlier description of imagination by articulating its role within a general theory of inquiry meant to comprehend the principles that underlie “the constructions of science and literature” (*F* 449) as methodical investigations. They do so by aligning the operation of the secondary imagination to a logical function: the eduction of an “idea,” according to Coleridge’s precise sense of that term as a necessarily *tautegorical* relation – one that expresses the same subject, but with a difference – that serves to guide inquiry. This is done in service of Coleridge’s argument that ideas can perform a constitutive in addition to a regulative role, thus providing an answer to what he identifies in *The Statesman’s Manual* as “the highest problem of Philosophy” (*LS* 114). In suggesting how the imagination itself serves such roles, the “Essays on Method” offer a way out of the numerous difficulties
Coleridge encounters in his attempted and ultimately aborted deduction of the imagination in *Biographia Literaria* by employing a different means of establishing its validity as a principle. As we shall see, it is not just that Coleridge simply places his earlier conception of the imagination within a more comprehensive framework of inquiry; rather, Coleridge handles the imagination as itself a guiding idea that leads directly to an articulation of the principles of method. It is significant in this respect that the pursuit of the imagination as a leading principle leads not, as Coleridge hoped, to a system; instead, it opens the promise of a method that expands while re-describing the very idea of inquiry.

After an examination in chapter 2 of Coleridge’s own understanding of the difficulties encountered in the attempted deduction of the imagination in *Biographia Literaria*, I turn to an explication of Coleridge’s later theory. Coleridgean inquiry may be broken down into two deceptively simple stages.

- First stage: the eduction of an “idea.”
- Second stage: the use of that “idea” to render intelligible new phenomena.

Pivotal to an understanding of Coleridge’s theory is his notion of “tautegory.” This term, Coleridge’s own coinage, designates a relational structure wherein one and the same subject is expressed in different ways. In chapter 3, I argue that the tautegorical stands for a *genus* of relation, to which the much-debated Coleridgean “symbol” belongs as one *species*, and, as such, provides a basis for understanding a mode of cognition that is confined neither to the literal nor to the metaphorical. Coleridge’s theory of inquiry also places heavy weight upon the term “idea,” a word that Coleridge was at pains to desynonimize from “conception” throughout his career. Chapter 4 argues that an idea
may only be rendered *tautegorically*, while a concept is an instance of an allegorical relation. Chapter 5 considers Coleridge’s answer to the “highest problem of Philosophy” through his notion that an idea is prospective, and so guides inquiry, while a concept is merely retrospective. I show in chapter 6 that the eduction of an idea is, for Coleridge, the function of the secondary imagination: it “dissolves, diffuses, dissipates” the notions and imagery obscuring an idea; once educed, the idea is used “in order to re-create” in that other phenomena may be seen as its different degrees and modifications. After the components of Coleridge’s theory of inquiry are in place, I argue in chapter 7 that the “Essays on Method” both articulate and exemplify Coleridge’s own theory of inquiry by presenting the “imagination” as itself an “idea.”
§2 – “To Descend into the Dark Cave of Trophonius”: Schelling and the Deduction of the Imagination

“All that metaphysical disquisition at the end of the first volume of the Biographia Literaria is unformed and immature; it contains the fragments of the truth, but it is not full, nor thought out” (TT 1:492). Such was Coleridge’s judgment in 1834, the final year of his life. One need not, however, wait that long for an expression of Coleridge’s dissatisfaction with this portion of the Biographia. In a September 30, 1818 letter to J. H. Green, Coleridge states that “I was myself taken in by it [Schelling’s system], retrograding from my own prior and better Lights, and adopted it in the metaphysical chapters of my Literary Life” (CL 4:874). Coleridge’s announcement to Green that “I seem to see clearly the rotten parts and vacua of his [Schelling’s] foundation” (CL 4:873) stands in stark contrast to what Coleridge had written three years earlier in Biographia Literaria: “to Schelling, we owe the completion, and the most important victories, of this revolution in philosophy. To me it will be happiness and honor enough, should I succeed in rendering the system itself intelligible to my countrymen” (BL 1:163). Because Schelling provides the framework within which the uncompleted deduction of the imagination takes place, an examination of Coleridge’s adoption of that framework provides a means to understand Coleridge’s attempted deduction, just as the specific objections he leveled against Schelling’s system articulate Coleridge’s reasons for abandoning it.\(^\text{17}\)

\(^{17}\) References to Schelling’s in this section pertain his analysis of Natur- and Transzendentalphilosophie in texts from 1796-1802. This period covers those texts (Abhandlungen zur Erläuterung des Idealismus, and System des transzendentalen Idealismus) that Coleridge draws upon in Biographia Literaria, as well as Einleitung zu seinem Entwurf eines Systems der Naturphilosophie, the work Coleridge was annotating at approximately the same time as his 1818 letter to Green.
It is impossible to consider Coleridge’s relation to Schelling without confronting the specter of plagiarism. This issue has dominated criticism on *Biographia Literaria*. Several major attempts at dealing with Coleridge’s “plagiarisms” from Schelling are examined in §2.1. My purpose is not to take sides in these contentious debates, but to demonstrate how Coleridge’s own methodological writings explain why these projects have largely failed to resolve the issue. The high stakes of the issue within criticism may be tempered when it is kept in mind that Coleridge’s use of Schelling in the *Biographia* leads straight into an impasse that is solved only through the introduction of a fake letter that abandons the Schelling-inspired enterprise altogether. Coleridge’s adoption of Schelling’s system in the *Biographia* is examined in §2.2 for the light it sheds on the abandoned deduction of the imagination. Likewise, Coleridge’s 1818 objections to Schelling are not judged in §2.3 for their accuracy as penetrating critiques of Schelling; rather, they are read to identify what Coleridge perceived as the eminently correctable weaknesses or pitfalls in his own failed attempt to establish the validity of his imagination in *Biographia Literaria*.

§2.1 – “You Must Have a Lantern in Your Hand to Give Light”: On Reading Coleridge’s Debts to Schelling

Coleridge writes in an 1804 notebook entry:

In the Preface of my Metaphys. Works I should say -- Once & all read Tetens, Kant, Fichte, &c--& there you will trace or if you are on the hunt, track me. Why then not acknowledge your obligations step by step? Because, I could not do in a multitude of glaring resemblances without a lie / for they had been mine, formed, & full formed in my own mind, before I had ever heard of these Writers, because to have fixed on the partic. instances in which I have really been indebted to these Writers would have [been] very hard, if possible, to me who read for truth & self-satisfaction, not to make a book, & who always rejoiced & was jubilant when I
found my own ideas well expressed already by others, & would have looked like a trick, to skulk there not quoted, & lastly, let me say, because (I am proud perhaps but) I seem to know, that much of the matter remains my own, and that the Soul is mine. I fear not him for a Critic who can confound a Fellow-thinker with a Compiler. (CN 2:2375)

This is -- to put it mildly -- a fascinating, troubling, and difficult passage. Not only does Coleridge advance the large (and surely controversial) claim that the “Soul” of his metaphysical work is purely his own, “full formed in [his] own mind, before [he] had ever heard of” philosophers such as Kant and Fichte, but the passage itself reads like a defense against an anticipated charge of plagiarism. Why is Coleridge defending himself in this manner, years before one can find any unacknowledged uses of the writings of these authors in Coleridge’s own public lectures or published writings? On what basis does Coleridge claim that he worked out many of the essentials of these philosophers before he heard of them? Generally acknowledged as the principal source for introducing German aesthetic theory of the Romantic era to an English-speaking audience, the urgency in these questions comes, of course, from Coleridge’s very liberal use of German sources later in his career. While the scope of this issue ranges from Coleridge’s unacknowledged borrowings from Augustus Schlegel in his public lectures on Shakespeare to his dependence on Johann G. E. Maass’ Versuch über die Einbildungskraft for the account of the history of the association of ideas in Biographia Literaria, at particular issue in this chapter are Coleridge’s semi-acknowledged

18 Coleridge’s massive reading has presented endless difficulties for his critical commentators, though attempts have been made to relate Coleridge’s claim to his early readings of figures such as Jakob Böhme, William Law, and George Fox, as well as to his readings of neo-Platonists of all stripes, from Jamblichus (whom Charles Lamb recalls Coleridge discoursing on when they were schoolboys at Christ’s Hospital, London) and Proclus, to Ficino & Bruno, to Ralph Cudworth and the Cambridge Platonists. The problem pertains not only to what Thomas McFarland calls “the simple fact of Coleridge’s learning” (xxviii), where summaries of his reading tend, as McFarland has shown, merely to “define the limitations of the commentator rather than of Coleridge” (xxiv), but rather to the organic nature of that learning. As McFarland has argued: “a group of scholars could catalogue the facts available to Coleridge, but they could not -- of this I am quite certain -- reproduce the organized whole of his learning” (xxv).
borrowings from Friedrich Schelling’s *Treatise Explicatory of the Idealism in the Science of Knowledge* (1797) and *System of Transcendental Idealism* (1800) within *Biographia Literaria* (1817). The issues are further vexed in that any attempt to answer these questions involves one in the debates surrounding the “plagiarisms,” a critical history complicated by several factors. In this section I review how the critical debate concerning Coleridge’s “plagiarisms” systematically misses the significance of the relevant *Biographia* chapters by injecting into the matter a host of collateral issues – concerning responsibility, morality, justice, author’s motivations, etc. – which either are anachronistically applied, or fail to unearth what Coleridge’s own motivations actually were, motivations which he in fact did not demur from exposing on repeated occasions.

It is worth noting that the issue of Coleridge’s possible plagiarism of Schelling is first brought up by Coleridge himself in the *Biographia*. In chapter nine, as already noted, Coleridge writes that “[t]o Schelling we owe the completion, and the most important victories, of this revolution in philosophy. To me it will be happiness and honor enough, should I succeed in rendering the system itself intelligible to my countrymen” (*BL* 1:163). However, just a few pages earlier, Coleridge anticipates a “charge of plagiarism” and answers it by writing that “all the main fundamental ideas, were born and matured in my mind before I had ever seen a single page of the German Philosopher; and I might indeed affirm with truth, before the more important works of Schelling had been written, or at least made public” (*BL* 1:161). Coleridge explains the coincidence of thought as due to the fact that he and Schelling (a) had “been disciplined by the same preparatory philosophy, namely the writings of Kant,” (b) felt “equal obligations to the polar logic and dynamic philosophy of Giordano Bruno,” and (c), shared “affectionate reverence for
the labors of Behmen, and other mystics” (*BL* 1:161). Coleridge raises the issue of “an ungenerous concealment or intentional plagiarism” a few pages later, this time excusing himself on the grounds that he has only been able to procure two of Schelling’s books; but note that later in this same paragraph Coleridge regards “truth as a divine ventriloquist” (*BL* 1:164). Needless to say, this back-and-forth may leave the reader wondering what in the world is going on. What would-be plagiarist anticipates the charge in print, going so far as to identify the very books he will be drawing upon, merely pages before lengthy and semi-referenced borrowing?

Thomas De Quincey, in an 1834 article published shortly after Coleridge’s death, opened the long, contentious, and continuing debate concerning Coleridge’s “plagiarisms” from these sources. Julius Hare’s 1835 reply to De Quincey’s article established a pattern of prosecution and defense that has raged on, repeating itself in every generation since 1834, with neither side marshaling a collection of arguments and textual evidence convincing enough to end the controversy. For just as J. F. Ferrier launched a more careful (and more ferocious) version of De Quincey’s charges in an article from 1840, prompting Sara Coleridge to defend her father in the introduction she prepared for the 1847 edition of *Biographia Literaria*, so did Rene Wellek’s 1931 *Kant in England* and 1955 *A History of Modern Criticism: The Romantic Age* reiterate many of Ferrier’s charges against Coleridge, this time to be answered by Thomas McFarland’s 1969 book. Nor was the issue put to rest by McFarland, as evidenced by subsequent work on these matters by Norman Fruman, John Beer, James Engell, W. Jackson Bate, Thomas Pfau, Tilar Mazzeo, and Andrew Keanie, among others.\footnote{Overviews of the critical history of the “plagiarism” issue are provided by McFarland (1-52) and, more recently, by Keanie.} Some of the major attempts to
deal with Coleridge’s debts to Schelling are examined in this section, and Coleridge’s own methodological writings are used to clarify why these projects have, for the most part, simply perpetuated the critical debate along already well-trodden lines.

Perhaps the most striking feature of the critical debate is the sheer acrimony with which it has been waged. Not only does the rhetoric of the courtroom (e.g., accusation, prosecution, defense) capture something of its tone, but the participants themselves have been using it since Ferrier’s 1840 “The Plagiarisms of S. T. Coleridge.” Most “accusatory” accounts of the disputed passages proceed in three stages: first, a demonstration of some passages from Schelling that Coleridge directly translated in *Biographia Literaria*; second, the expression of moral indignation or outrage over how someone with the more-or-less glowing reputation of Coleridge could incorporate, almost verbatim, another philosopher’s words into his own work; and third, a negative judgment about either Coleridge’s originality or coherence as a philosopher, his competence as a historian of philosophy, or even his character as a responsible person.

Fruman’s 1971 *Coleridge, the Damaged Archangel* moves through all three of these stages. It even invokes the usual juridical metaphors multiple times in his preface.\(^{20}\) Fruman begins by reviewing Coleridge’s general reputation as one of today’s “heroes of thought,” a man “so apparently honorable, so fundamentally decent and open-hearted, so generous and indifferent to personal reputation [to] possibly have been guilty of deliberate misrepresentation and concealment,” only to unmask the hero as “cunning and deceitful, at times treacherous, vain and ambitious of literary reputation, dishonest in his personal relations, an exploiter of those who loved him, a liar” (xiv). Coleridge does not

\(^{20}\) For instance: “were it possible to submit the evidence bearing upon the question of his originality to a panel of experienced jurists in no way connected with the republic of letters, it cannot be reasonably doubted that the judgment would be decidedly unfavorable to his reputation” (xii).
merely emerge from Fruman’s portrait “very much darker emotionally and morally”(xv) than previously drawn, but also as someone whose own originality as a thinker is thought to be so fraudulent that his philosophical reputation is reduced from a serious thinker in his own right to “a great pioneer in introducing German thought to England” (214).

So caught up in taking a position against Coleridge, Fruman regularly loses sight of the import of his own arguments. To cite one example, even if Coleridge did identify the two primary works by Schelling that he makes use of, such identification, Fruman reminds us, occurred in chapter nine, such that

it is perhaps beyond the limits of normal human memory to recall, by the time one has reached the metaphysical disquisition in Chapter XII, that some sixty pages earlier Coleridge had made a vague, general acknowledgment of a hypothetical nature to a German philosopher named Schelling, a statement among many other announcements of intellectual obligations. An hour, a day, a week, or even longer may have passed between the reading of the two chapters. (101)

Fruman’s claim about remembering a passage sixty pages earlier being “beyond the limits of normal human memory” is both self-defeating and absurd. Applied as a standard, this would rule out any work of fiction, philosophy, or criticism longer than sixty pages that depends, for its argument, on the slow and steady accumulation of imagery or on the careful establishment of premises that will play a crucial role in later inferences.

While Fruman’s polemical tone is surely inviting of an equally polemical response, the real reason that Fruman’s book fails to move the debate forward is that all he does is provide an admittedly long list of where Coleridge incorporated work by German authors.21 The chief problem is that Fruman fails entirely to consider the uses to which Coleridge put these sources in his own writings. That is to say, the question of

21 For those pertaining to Schelling and Biographia Literaria, see 69-107 and 177-218.
whether Coleridge was using Schelling for his own purposes or was merely copying select ideas and trying to pass them off as his own is never raised. Suppose, for instance, that Coleridge had cited – in accordance with a modern, specified standard – all those passages where he is incorporating the words and ideas of Schelling. The crucial issue relating to Coleridge’s originality or philosophical competence would then have everything to do, not with the existence of a lot of footnotes, but with how Coleridge uses his sources to advance his own position. Yet this is the one issue that Fruman never broaches, thus ensuring the continuance of the critical debate without either bringing it to an end or opening up new paths of inquiry to move it forward.

In light of the polemical nature of these debates, one can only applaud the measured tone taken by James Engell and W. Jackson Bate in their introduction to and preparation of the edition of *Biographia Literaria* for the *Collected Works of Samuel Taylor Coleridge*. Engell and Bate abandon the juridical rhetoric entirely, relying instead on lengthy footnotes that offer “a direct presentation of sources, page by page, sometimes line by line” (*BL* 1:cxvi). Their presentation of source material, making ample use of Fruman’s prior work, is by far the most comprehensive yet collated, and the editors believe that by “presenting parallel passages in full,” they have prevented further entrants in this debate from exaggerating or minimizing the amount of such material according to disposition. In addition to the parallel passages provided in the footnotes, as an appendix to the volume they present the following “simple table,” based on word counts of passages that are either “directly translated,” “closely paraphrased,” “loosely paraphrased,” or represent “summarized material.”
While one can object to the slipperiness of these categories, or to the fact that the editors give no justification for choosing exactly *four* categories, let us take their “simple table” and its results as basically correct, that is, as close enough to what any other group of editors might tabulate. Even so, the table only shows what everyone involved in these debates has known since at least 1834: namely, that Coleridge introduced a substantial amount of material from German sources into *Biographia Literaria* without directly acknowledging these sources on every occasion that they were used. What I would like to focus on is the justification for this approach that Engell and Bate provide in their introduction:

> What we have done is to identify exactly what (and what amount) Coleridge used where he himself gave no specific citation. We present the facts, without the rhetoric of either defense or accusation. What is most eloquent are the detailed annotations. They speak for themselves. (*BL* 1:cxviii)

What is worth noting in this approach is that the facts -- detailed annotations in the form of parallel passages -- in this case emphatically *do not* speak for themselves, and that what is missing here is exactly what was missing in Fruman’s analysis. To adopt one of Coleridge’s own sayings, what Engells and Bate provide is merely “the *reiteration* of the problem, not its solution” (*F* 481). That is to say, there is no analysis of the use(s) to which Coleridge put these sources, of the way that they function in the overall context of

### Unacknowledged Uses of German Works in Chapters 5-9, 12-13

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<td>5</td>
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<td>200 (7%)</td>
<td>320 (11%)</td>
<td>70 (2%)</td>
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<td>6</td>
<td>2285</td>
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<td>1610</td>
<td>310 (19%)</td>
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<td>12</td>
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<td>1560 (13%)</td>
<td>1070 (9%)</td>
<td>660 (5-6%)</td>
<td>490 (4%)</td>
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<td>13</td>
<td>2290</td>
<td>110 (5%)</td>
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<td>100 (4%)</td>
<td>265 (11%)</td>
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<tr>
<td>Total</td>
<td>28,640</td>
<td>2450 (9%)</td>
<td>1540 (5-6%)</td>
<td>990 (3-4%)</td>
<td>950 (3%)</td>
</tr>
</tbody>
</table>

*(BL* 2:254)
the argument of *Biographia Literaria*. And this oversight is symptomatic of nearly all treatments of Coleridge’s “plagiarisms” so far, regardless of their rhetorical tone or polemical orientation.

In his own work, Coleridge was at pains to show that “the facts” by themselves were never eloquent, only deaf and mute. Relevant to Engell and Bates’ discussion of their table is the following selection from Coleridge’s *Table Talk*. Recalling a meeting with someone identified only as “one of the rising young men of the day,” Coleridge reports being told

> that facts gave birth to, and were the absolute ground of, principles; to which I said, that unless he had a principle of selection, he would not have taken notice of those facts upon which he grounded his principle. You must have a lantern in your hand to give light, otherwise all the materials in the world are useless, for you cannot find them; and if you could, you could not arrange them. “But then,” said Mr. ———, “that principle of selection came from facts!” -- “To be sure!” I replied; “but there must have been again an antecedent light to see those antecedent facts. The relapse may be carried in imagination backwards for ever,---but go back as you may, you cannot come to a man without a previous aim or principle.” (*TT* 2:119-20).

Coleridge’s remark that without a lantern, not only could the facts not be arranged, they could never even have been found, applies with some force to Engell and Bate’s table.

Their guiding principle -- the same principle shared by Fruman -- is that a mere listing of source material is sufficient to illuminate the question of Coleridge’s debts to prior thinkers. As we will see, the idea expressed in the above-quoted remarks from *Table Talk* are explicated by Coleridge in greater detail in the “Essays on Method” where Coleridge examines how a central idea or experiment may serve as “one fact . . . often worth a thousand, as including them all in itself, and that it first makes all the others facts” (*F* 481). While a prior principle is requisite to locate and organize facts, not all principles
open a path of transit. Having cited Shakespeare’s Polonius as a man who exemplifies the form, but not the content, of method, Coleridge remarks:

We have seen that a previous act and conception of the mind is indispensable even to the mere semblances of Method: that neither fashion, mode, nor orderly arrangement can be produced without a prior purpose . . . though this purpose may have been itself excited, and this “pre-cogitation” itself abstracted from the perceived likenesses and differences of the objects to be arranged. But it has likewise been shown, that fashion, mode, ordinance, are not Method, inasmuch as all Method supposes a principle of unity with progression; in other words, progressive transition without breach of continuity. (F 475-476)

Coleridge’s own writings on method, that is to say, provide an explanation for why these debates have continued to volley the same points back and forth. The assumption that exhibiting a list of sources is sufficient, while providing the sort of “orderly arrangement” so neatly exemplified in Engell and Bates’s table, does not allow for “progressive transition without breach of continuity.” Thomas Pfau incisively makes a similar point: “The main discussions of Schelling in relation to Coleridge, with the laudable exception of Thomas McFarland’s earlier work, tend to be philological, concentrating on the plagiarisms, albeit without accounting to any significant extent for Coleridge’s philosophical aims – as such radically different from Schelling’s concerns – in support of which Schelling’s writings are being invoked” (“Excursus” 271).

Yet, while one might expect Coleridge’s “defenders” to base their analyses on an examination of these philosophical aims, this too has generally not been the case. Primarily wishing to counter the ethical charges against Coleridge’s person, or, drawn into Coleridge’s psychology by the remarks that Coleridge himself makes regarding Schelling and the issue of plagiarism within Biographia Literaria, these accounts have by-and-large tried to explain the presence of the unacknowledged German source material from a variety of psychological perspectives. As a result we have learned a great
deal about the circumstances surrounding Coleridge’s life at the time he was writing the
*Biographia*, as well as much useful information dealing with the actual composition of
the volume. The plagiarism debate has in fact shifted to the date of composition of
chapters 12 and 13 of *Biographia Literaria*. Coleridge’s defenders claim – on the basis of
a September 17, 1815 letter – that these dense, philosophical chapters were written in a
frantic rush over the span of three days, thus hoping the circumstances of composition
soften the sting felt over Coleridge’s borrowings. Coleridge’s accusers claim – on the
basis of a July 29, 1815 letter – that Coleridge’s manuscript was largely finished by mid-
July, hoping to show that these chapters were not composed in a rush and thus hoping to
sharpen the sting over the accusation of plagiarism.22

While these questions concerning the date of composition of *Biographia Literaria*
appear to be unresolvable based on the available textual evidence, the appeals to
Coleridge’s psychology and to extenuating circumstances do not really advance the larger
discussion of Coleridge’s intellectual debts to Schelling. As McFarland noted of much
earlier debates, such defenses “seem to feel a necessity to concede Coleridge’s
intellectual bankruptcy in order to save his moral standing, and one wonders in that event
if the game is worth the candle” (17). Though McFarland himself is also irresistibly
drawn to Coleridge’s psychology (“we can do little but consider how very complex, how
neurotic, and psychologically beclouded, Coleridge’s unorthodox practices were,” and so
forth), presenting his own portrait of Coleridge wherein “the psychological background
of such borrowings was not a dearth of ideas, but a profusion of ideas along with a dearth
of energy” (29), McFarland’s real contribution to the plagiarism debate result from his
recasting of such discussions in terms of the larger question of the value of originality in

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22 An overview of these issues is provided by Modiano’s “Coleridge as Literary Critic” (205-08).
philosophy, and his related, and more fruitful, explication of Coleridge and Schelling’s diverse intellectual agendas.

McFarland begins his analysis of the disputed passages with some remarks on the cultural history of the concept of originality. While originality began to be prized as a merit in literature during the Romantic era, it was not so prized in philosophy. And, for McFarland, rightly so:

A great philosopher’s originality lies not in terminology, but rather in viewpoint and tone, and, above all, in the organic quality of his position. His historical importance doubtless depends upon factors of race, moment, and milieu, but his intrinsic quality, that which distinguishes him from other thinkers of similar persuasion, is almost wholly dependent upon the character of his work as an organism (xxxii).

McFarland’s analysis here is similar to conclusions reached by A. O. Lovejoy in “The Study of the History of Ideas,” chapter one of The Great Chain of Being, where Lovejoy expresses his methodological protocols for intellectual history. Lovejoy likens the historian of ideas to an analytical chemist whose job consists in the decomposition of compounds into their component elements, as well a study of the rules and stability of certain patterns of recombination. Playing the role of atomic elements in this analogy are what Lovejoy calls “unit-ideas” as the fundamental building blocks of thought. As the metaphorics of the comparison imply, unit-ideas, like elements, are supposed to be finite in number, such that philosophic systems are original through the combinations of their component parts.23 It is within a similar framework that McFarland argues that the concept of “plagiarism” -- applicable mainly to “the stricken efforts of undergraduates to meet demands far beyond either their abilities or their interests,” makes little-to-no sense when “appli[ed] to the activities, however unconventional, of a powerful, learned, and

23 See A. O. Lovejoy, The Great Chain of Being, though note Lovejoy’s later dissatisfaction with the analytical chemistry analogy in “The Historiography of Ideas.”
deeply committed mind” (45). Drawing on his notion that originality in philosophy depends upon the organic nature of a thinker’s output, McFarland notes that the concept of plagiarism is only valid in philosophy “when defined as the mere repetition of borrowed materials without the achievement of a reticulated pattern” (47). The crux of McFarland’s argument is to show that Coleridge did indeed build a “reticulated pattern” out of his borrowed materials, a pattern that is deeply antithetical to the tenor of Schelling’s philosophy.

Towards this end McFarland attempts an all-encompassing characterization of Coleridge’s intellectual output: the “inability either really to accept or wholeheartedly to reject pantheism is the central truth of Coleridge’s philosophical activity” (107). As was briefly summarized in §1.1, only two genuine philosophical positions are possible in McFarland’s analysis: so-called “I AM” philosophies that begin from the recognition of the primacy of the self and so-called “IT IS” philosophies (of which McFarland claims Spinoza’s pantheism is the strongest expression) that begin from the recognition of the primacy of the world. In McFarland’s narrative, Coleridge was originally drawn to Schelling because of the latter’s claims that Identitätsphilosophie could combine Kant with Spinoza -- I AM and the IT IS -- within a single system, and so turned to Schelling while he was writing Biographia Literaria, only to eventually realize that Schelling’s philosophy was, at bottom, pantheistic to the core. The philosophical drama of Biographia Literaria, in McFarland’s analysis, revolves around its being composed within the orbit of the Schelling-Jacobi debate on pantheism.

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24 As McFarland puts it: “[q]uite possibly he does not at that time clearly formulate his objections but merely senses that the exposition is not fulfilling its promise” (152).
These two philosophical positions are ultimately irreconcilable in McFarland’s view, and Coleridge’s life-long inability to decide between the two alternatives is taken as evidence of both his integrity and the source of his continuing vitality as a thinker. One of McFarland’s most provocative moves pertains to what Plato said even in his day was an ancient quarrel between philosophy and poetry. In terms of the two possible systems of philosophy, McFarland claims that “the heart’s blood of poetry is transfused from the realm of ‘it is,’” (116-123) while “the whole realm of moral abstraction,” on the other hand, “is projected only by the ‘I am’ in the consciousness of its primacy” (108).

McFarland’s reading of this tension within Coleridge’s thought is wide-ranging and nuanced, wherein Coleridge’s statement in *Biographia Literaria* that “[f]or a long time indeed I could not reconcile personality with infinity; and my head was with Spinoza, though my whole heart remained with Paul and John” (*BL* I 201) finds its dramatic reenactment in “The Aeolian Harp,” where the pantheistic flights of the poem’s speaker

\[
\text{And what if all of animated nature} \\
\text{Be but organic harps diversely framed,} \\
\text{That tremble into thought, as o’er them sweeps} \\
\text{Plastic and vast, one intellectual breeze,} \\
\text{At once the Soul of each, and God of All? (PW 1.2:234)}
\]

are checked by the ‘I Am’ sentiments of his wife Sara

\[
\text{Nor such thoughts} \\
\text{Dim and unhallowed dost thou not reject,} \\
\text{And biddest me walk humbly with my God.} \\
\text{Meek daughter in the family of Christ! (PW 1.2:234)}
\]

Placing the study of Coleridge’s “underlying ideas against the central traditions of continental thought of his time” (156), McFarland made the first real advance in over one hundred years on the plagiarism issue by demonstrating how Coleridge’s philosophical aims can be seen to run directly counter to the nature of Schelling’s philosophy.
Schelling, in McFarland’s analysis, is a minor player in the drama of Coleridge’s philosophical life: while Coleridge at one time believed that Schelling’s philosophy might be able to reconcile Coleridge’s two deepest commitments, he becomes merely a representative pantheist, lacking the central importance to Coleridge of Spinoza, Böhme, and various neo-Platonists.

It is curious, however, that McFarland develops his argument regarding the plagiarisms out of his presentation of what he calls the “central truth of Coleridge’s philosophical activity” rather than out of a detailed reading of Biographia Literaria itself. McFarland does not claim that the Biographia marks an important stage in Coleridge’s development; on the contrary, his argument proceeds on the basis that not only did Coleridge’s attraction to and repulsion from pantheism exist from the time he was a schoolboy, but that, to adopt and slightly modify Wordsworth’s phrase, the child is always the father of the philosopher. “Who is to say,” McFarland asks, “the bloom is more truly the flower than is the bud?” (162). In line with such a view, McFarland believes that accounting for a thinker’s “development” in the sense of progressive steps” is merely a “scholarly prejudice” (162) rather than a prerequisite of careful thinking. To return to the language of Coleridge’s “Essays on Method,” though McFarland made a genuine advance on the plagiarism debates, his recasting of Coleridge’s entire intellectual output in terms of the pantheist dilemma only provides for an “orderly arrangement” of Coleridge’s own thought. That is to say, McFarland’s scheme can be applied as a grid onto which Coleridge’s writings can be parsed and sorted. There is, to be sure, a principle of unity, but that principle is incapable of progression or growth.
Such a grid would not even be an accurate or sufficient instrument by which to handle the range and depth of Coleridge’s thinking, much less its development. As will be evident, reading Coleridge exclusively through the lens of the pantheist dilemma leaves McFarland unable to account for Coleridge’s lifelong interest in the history and philosophy of scientific inquiry. In what even McFarland himself calls a “summary dismissal,” he writes that “Coleridge’s scientific pretensions” are a matter of little interest either historically or philosophically (249). The inability of McFarland’s grid to mark a “transition without breach of continuity” from Coleridge’s involvement with the contemporary continental pantheist debates to his interest in scientific method shows not only that McFarland’s portrait of Coleridge is far from the final word on such matters, but, more importantly, that articulating something like the overall pattern of Coleridge’s thought is not required for an analysis of the disputed passages in the *Biographia*.

Thomas Pfau notes that “discussions of [S.T.C.’s ‘plagiarisms’] from J. F. Ferrier to Norman Fruman continue to presuppose a modern, highly regulated system of intellectual ownership and exchange” (“Excursus” 271). That is to say, Coleridge’s critics as well as his defenders have generally not applied the same exacting standards of scholarship that they expect of Coleridge either to the thinkers whom Coleridge was relying upon, or to the later generation of romantics that gained their knowledge of German transcendental idealism primarily from reading Coleridge. McFarland’s grounding his discussion upon the concepts of originality and plagiarism surely count as an exception to Pfau’s generalization, though McFarland’s work nevertheless points to same problem. Instead of applying today’s standards of intellectual ownership and exchange onto the early 1800s, McFarland’s reflections are equally a-historical in that
they also tell us nothing about the scholarly conventions of Coleridge’s lifetime. Considering that much of the acrimony of the critical debates have to do with the indignation many scholars feel upon finding Schelling’s words transposed without immediately direct attribution into Coleridge’s writing, an examination of such borrowings in Coleridge’s contemporaries may be instructive.

The case of Ralph Waldo Emerson, I believe, is especially poignant in this respect. While in 1834 Emerson evidently decided “not to utter any speech, poem, or book that is not entirely & peculiarly my work” (1128), his 1836 *Nature* is a veritable panoply of unacknowledged quotations from the English romantics. Consider, in this light, the following passage from “Idealism,” chapter four of *Nature*:

> “The problem of philosophy,” according to Plato, “is, for all that exists conditionally, to find a ground unconditioned and absolute.” It proceeds on the faith that a law determines all phenomena, which being known, the phenomena can be predicted. That law, when in the mind, is an idea. Its beauty is infinite. The true philosopher and the true poet are one, and a beauty, which is truth, and a truth, which is beauty, is the aim of both. (36)

While the most obvious echo in this passage may be to Keats’ “Beauty is truth, truth beauty -- that is all / Ye know on earth, and all ye need to know,” the entire passage is framed by an uncritical reading of Coleridge’s “Essays on Method.” Plato, of course, never wrote as though he was a German Idealist, and one can search his writings in vain trying to discover the source of Emerson’s quotation. The passage that Emerson here attributes to the philosopher is lifted almost word-by-word out of Coleridge’s own summary of Plato’s aims. Coleridge writes:

> The grand problem, the solution of which forms, according to Plato, the final object and distinctive character of philosophy, is this: *for all that exists conditionally* (i.e. the existence of which is inconceivable except under the condition of its dependency on some other as its antecedent) *to find a ground that*
is unconditional and absolute, and thereby to reduce the aggregate of human knowledge to a system. (F 461).

Emerson’s equation of the true philosopher and the true poet, based on his correlation between “law” and “idea,” is also taken straight out of Coleridge: “[t]hat which, contemplated objectively (i.e. as existing externally to the mind), we call a law; the same contemplated subjectively (i.e. as existing in a subject or mind), is an idea” (CC&S 13).

Emerson also follows Coleridge in his use of this correlation as the basis upon which to establish a connection between poetry and philosophy: “From Shakespeare to Plato, from the philosophic poet to the poetic philosopher, the transition is easy.” (F 472).

A full assessment of Coleridge’s so-called plagiarisms would thus have to place them within a context of similar borrowings from Coleridge’s contemporaries. Such an assessment, as examining less than one paragraph from Emerson has shown, would likely go a long way towards tempering some of the critical heat that usually accompanies these debates. That assessment, however, is not only beyond the scope of this work, but, as I have attempted to show, it is not evident that such a study would do anything more than temper these debates. Even an argument demonstrating the relative laxity of the economy of scholarly exchange in Coleridge’s time would still leave the principal questions concerning Coleridge’s debts to Schelling, or of Emerson’s debts to Coleridge, unanswered. Before analyzing Coleridge’s deduction of the imagination, I would like to suggest that Coleridge’s own directives on reading from Biographia Literaria may in fact provide a sufficient basis from which to examine the contested passages.

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25 One might note that Coleridge, at least, identifies Schelling by name – including the particular books of Schelling that he borrows from – in the Biographia, even going so far as to write that presenting Schelling’s system would be happiness and honor enough.
Emerson again provides both a comparison and a contrast. Emerson provides several clues as to how he read other writers, and these hints can be fruitfully applied to the judgment of our sample passage from *Nature*. In his essay “Nominalist and Realist,” for example, Emerson writes: “I find the most pleasure in reading a book in a manner least flattering to the author…. I read for the lusters, as if one should use a fine picture in a chromatic experiment, for its rich colors” (579). Reading for luster is very different from “close” reading, much less “exact” reading. As Emerson puts it in “The Poet”: “An imaginative book renders us much more service at first, by stimulating us through its tropes, than afterward, when we arrive at the precise sense of the author” (462).

Emerson’s directives on reading can be applied directly to the plagiarisms in the passage from *Nature*. Emerson, notably, does not copy every word from Coleridge. He only copies the main force of Coleridge’s sentences, leaving out Coleridge’s careful framing and explanations (e.g., “the final object and distinctive character of philosophy,” “i.e. the existence of which is inconceivable except under the condition of its dependency on some other as its antecedent,” and “thereby to reduce the aggregate of human knowledge to a system”). Emerson’s passage very much seems to reflect the result of a first reading rather than the result of a careful explication of the precise sense gained through multiple readings. What is needed for a full reading of this passage is an account not only of what lusters and colors Emerson picked up in Coleridge and in Keats, but, more importantly, of the uses to which Emerson put his sources of inspiration. Emerson’s own directives on reading reveal that an extensively detailed examination of his source passages is not likely to be especially helpful in this regard.
In the case of Coleridge the situation is more complex. Coleridge was an outspoken and vehement opponent of the kind of reading championed by Emerson. Coleridge liberally scatters directives, reflections, and hints regarding his own method of reading throughout *Biographia Literaria*. In chapter one, for instance, Coleridge spends a great deal of time recalling the lessons he learned as a schoolboy from James Bowyer, Head Master of the Grammar School at Christ’s Hospital. Coleridge summarizes the most important lesson he learned from Bowyer as follows: “In the truly great poets, he would say, there is a reason assignable, not only for every word, but for the position of every word; … he made us attempt to show, with regard to each, why it would not have answered the same purpose; and *wherein* consisted the peculiar fitness of the word in the original text” (*BL* 1:9). In sharp contrast to Emerson’s reading for what strikes one the first time through a text, Coleridge advances the claim “that not the poem which we have *read*, but that to which we *return*, with the greatest pleasure, possesses the genuine power, and claims the name of *essential poetry*” (*BL* 1:23). Though the specific context of these two passages have to do with reading poetry, the sensitivity to language, the value placed on precision of expression, and the treatment of poems as organic wholes were guiding notions that Coleridge generalized into the reading of any carefully-constructed text. Preparatory to the (missing) deduction of the imagination from chapter 13 and immediately preceding the majority of the disputed borrowings from Schelling, Coleridge opens chapter 12 -- “A Chapter of requests and premonitions concerning the perusal or omission of the chapter that follows” – with the announcement of his own “golden rule” of reading:

In the perusal of philosophical works I have been greatly benefited by a resolve, which, in the antithetic form and with the allowed quaintness of an adage or
maxim, I have been accustomed to word thus: “until you understand a writer’s ignorance, presume yourself ignorant of his understanding” (BL 1:232).

To illustrate his maxim, Coleridge contrasts what he calls “a treatise of a religious fanatic” -- perhaps a book detailing what Coleridge once referred to as one of Swedenborg’s “memorable Experiences” or a volume by Jakob Böhme -- with Plato’s *Timaeus*, noting how certain particularly difficult passages in the *Timaeus* led him to conclude himself ignorant of Plato’s understanding, whereas he felt as though he could account for, and thus understood, the ignorance of the treatise of the religious fanatic. In light of this advice Coleridge urges his readers to either “pass over the following chapter altogether” or “read the whole connectedly,” as, in Coleridge’s simile, “[t]he fairest part of the most beautiful body will appear deformed and monstrous, if dissevered from its place in the organic Whole” (BL 1:233-234). The statement both expresses the manner in which Coleridge wanted his chapter to be read and his own acknowledgement of the irony of this request considering how much of the chapter consists in sentences severed from other works. So Coleridge knew all too well that deleting a single word or adding a phrase or two could profoundly alter the sense or meaning of a particular passage, and that similar changes in meaning could occur by lifting one passage out of its original context and dropping it into a new context. Keeping these remarks in mind, let us turn to the deduction of the imagination in *Biographia Literaria*.

§2.2 – The Presence of Schelling in Coleridge’s Deduction of the Imagination

It has long been recognized that Coleridge adopts Schelling’s analysis of the “subject-object” relationship as the framework in which the attempted deduction takes place. Working from the assumption that knowledge consists “in the coincidence of the
thought with the thing, of the representation with the object represented,” Coleridge follows Schelling in categorizing the “OBJECTIVE,” or “NATURE,” as “exclusively represented” and “without consciousness,” just as the “SUBJECTIVE,” under the name of “SELF” or “INTELLIGENCE,” is thought of as “exclusively representative” and “conscious” (BL 1:254–5). As Coleridge, translating Schelling, writes:

> During the act of knowledge itself, the objective and subjective are so instantly united, that we cannot determine to which of the two the priority belongs. There is here no first, and no second; both are coinstantaneous and one. While I am attempting to explain this intimate coalition, I must suppose it dissolved. I must necessarily set out from the one, to which therefore I give hypothetical antecedence, in order to arrive at the other. (BL 1:255)

This analysis of the “subject-object” relationship in the act of knowledge suggests two paths of inquiry, which Coleridge, again following Schelling, names Nature Philosophy and Transcendental Philosophy. The former begins with the objective and attempts to show how intelligence develops from nature. The transcendental philosopher, in parallel fashion, attempts to show how the objective arises from consideration of the subjective alone.\(^{26}\) The Biographia is thus framed by a metaphysics that takes “subjective” and “objective” as primary terms, neither in need nor susceptible of further definition.

Coleridge’s proposed deduction of the imagination is directly tied to this framework as part of an attempt to bridge what the modernist poet Wallace Stevens later calls that “dumbfounding abyss / Between us and the object” (Poetry 375).

The attempted deduction takes place as part of Transcendental Philosophy. The first task, for Coleridge as for Schelling, is to find a non-objective principle upon which to ground such an investigation. Like Schelling (who takes the principle from Fichte),

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\(^{26}\) Note that each pursuit follows the Odysseus allegory of inquiry: “origin” and “end” are stipulated at the outset, and the task of inquiry is either to start with Odysseus as the “subjective” and take him back home to Ithaca as the “objective,” or to start with Odysseuses as the “objective” and take him back home to Ithaca as the “subjective.”
Coleridge finds this principle in self-consciousness, in the self as intellectual intuition. As Coleridge writes:

Only in the self-consciousness of a spirit is there the required identity of object and of representation; for herein consists the essence of a spirit, that it is self-representative. If therefore this be the one only immediate truth, in the certainty of which the reality of our collected knowledge is grounded, it must follow that the spirit in all the objects which it views, views only itself. If this could be proved, the immediate reality of all intuitive knowledge would be assured. It has been shown, that a spirit is that, which is its own object, yet not originally an object, but an absolute subject for which all, itself included, may become an object. (BL 1:278-9)

Contra Fichte, who holds that intellectual intuition is fully immediate, Coleridge also follows Schelling in conceiving of the self as a continually striving tendency towards such an intuition.

Whereas Schelling is emphatic that “self-consciousness is not a kind of being for us, but a kind of knowing, and in fact the highest and most ultimate that there can ever be for us” (Transcendental Idealism 17). Coleridge persistently interrupts his use of Schelling in order to move to considerations of the ground of the existence of self-consciousness. This occurs most notably in Coleridge’s “Scholium” to Thesis VI:

If a man be asked how he knows that he is? he can only answer, sum quia sum. But if (the absoluteness of this certainty have been admitted) he be again asked, how he, the individual person, came to be, then in relation to the ground of his existence, not to the ground of his knowledge of that existence, he might reply, sum quia deus est, or still more philosophically, sum quia in deo sum. But if we elevate our conception of the absolute self, the great external I am, then the principle of being, and of knowledge, of idea, and of reality; the ground of existence, and the ground of the knowledge of existence, are absolutely identical. Sum qui sum; I am, because I affirm myself to be; I affirm myself to be, because I am. (BL 1:274-75)

Coleridge’s own footnote to this passage relates the “sum quia sum” to God’s first revelation of himself to Moses. In opposition to Schelling’s warnings against the transcendental philosopher making such a move, Coleridge identifies the identity of
subject and object as originating in God himself. This, as Coleridge recognizes, can only be asserted by means of an act of faith that is itself beyond the bounds of Transcendental Philosophy. Coleridge, in other words, encapsulates Schelling’s insight within his own brand of theism.

This pattern is repeated in many of the other disputed passages. Take thesis nine, for example, which may be separated into two parts to display Coleridge making the same move that was made in thesis six:

This principium commune essendi et cognoscendi, as subsisting in a will, or primary act of self-duplication, is the mediate or indirect principle of every science; but it is the immediate and direct principle of the ultimate science alone, i.e. of transcendental philosophy alone. For it must be remembered, that all these Theses refer solely to one of the two Polar Sciences, namely, to that which commences with and rigidly confines itself within the subjective, leaving the objective (as far as it is exclusively objective) to natural philosophy, which is its opposite pole. In its very idea therefore as a systematic knowledge of our collective knowing, (scientia scientiae) it involves the necessity of some one highest principle of knowing, as at once the source and the accompanying form in all particular acts of intellect and perception. This, it has been shown, can be found only in the act and evolution of self-consciousness. (BL 1:281-82).

This first half of thesis nine is pure Schelling, most notably in the distinction drawn between the two Polar Sciences, one -- Naturphilosophie -- starting with the objective first, while the other -- transcendental philosophy -- takes the subjective first. The act of self-consciousness as the “highest principle” of the latter science is again taken from Schelling, as is the notion that this act provides the basis for our perception of outward objects by virtue of being the only immediate truth on which our common knowledge is based, such that, as Coleridge, again paraphrasing Schelling, had put it earlier, “the spirit in all the objects which it views, views only itself” (BL 1: 278). Having thus aptly summarized Schelling’s position, consider how Coleridge again changes the meaning of that position by placing it within an antithetical theistic context:
We are not investigating an absolute principium essendi: for then, I admit, many valid objections might be started against our theory; but an absolute principium cognoscendi. The result of both the sciences, or their equatorial point, would be the principle of a total and undivided philosophy, as for prudential reasons, I have chosen to anticipate in the Scholium to Thesis VI and the note subjoined. In other words, philosophy would pass into religion, and religion become inclusive of philosophy. We begin with the I know myself, in order to end with the absolute I am. We proceed from the self, in order to lose and find all self in God. (BL 1:282-83).

Coleridge departs from Schelling in the same manner he did in thesis six. Though Coleridge believes, with Schelling, that meditation on the act of self-consciousness reveals that our knowledge of the ground of objects, or our knowledge of being, is identical with spirit or self-consciousness, he moves from such an “absolute principium cognoscendi” to provide a theistic answer to the “absolute principium essendi.” Whereas the imagination, for Fichte and Schelling, was taken, via what Coleridge calls the “absolute principium cognoscendi” to be both constitutive and regulative of the natural world, the imagination for Coleridge plays a mediating role, in the case of *Biographia Literaria* it is between between spirit and nature, subject and object; for, even though spirit and nature can be shown by the transcendental philosopher to be known in the same way, this does not guarantee or even imply that they are indistinguishable. Coleridge’s theism, here equated to the “total and undivided philosophy,” is meant to encapsulate both *Naturphilosophie* and transcendental philosophy.

In the especially condensed and richly metaphorical passage that ends *Biographia Literaria*, Coleridge makes one last attempt to summarize the aims of his book:

The scheme of Christianity … though not discoverable by human Reason, is yet in accordance with it; that link follows link by necessary consequence; that Religion passes out of the ken of Reason only where the eye of Reason has reached its own Horizon; and that Faith is then but its continuation: even as the Day softens away into the sweet Twilight, and Twilight, hushed and breathless, steals into the Darkness. It is Night, sacred Night! the upraised Eye views only the
starry Heavens which manifests itself alone: and the outward Beholding is fixed on the sparks twinkling in the aweful depth, though Suns of other Worlds, only to preserve the Soul steady and collected in its pure Act of inward Adoration to the great I AM, and to the filial WORD that re-affirmeth it from Eternity to Eternity, whose choral Echo is the Universe. (BL 2:247-8)

Coleridge’s description of how day passes through twilight into “sacred Night” is used to figure how his theism, as a “total and undivided philosophy,” is inclusive of Schelling’s Nature Philosophy and Transcendental Philosophy. While Coleridge thus reads the personal God of Christianity into the “absolute self” of Schelling’s System of Transcendental Idealism, Schelling rejects such a move, claiming that it is only in the work of art that the identity of subject and object may be represented.

Setting such moves aside, Coleridge also borrows from Schelling the idea that “an indestructible power with two opposite and counteracting forces” underlies the notion of “intelligence [as] a self-development” (BL 1:286). Coleridge uses this idea to announce both the task of Schelling’s System of Transcendental Idealism – “to construct, by a series of intuitions the progressive schemes, that must follow from such a power with such forces, till I arrive at the fullness of the human intelligence” – and the means by which he will establish the validity of the imagination as a philosophical principle: “I assume such a power as my principle, in order to deduce from it a faculty [the imagination], the generation, agency, and application of which form the contents of the ensuing chapter” (BL 1:286). This deduction will fulfill the promise of volume one of Biographia Literaria in showing that the distinction between imagination and fancy is

27 The particular figurations of this closing passage resonate with scenes from many of the poems that Coleridge wrote from 1798-1802: think only of the role of the sunset in “This Lime-Tree Bower My Prison” or the mood evoked by and the events that transpire under the aegis of the night in “The Nightingale,” “The Rime of the Ancient Mariner,” and “Frost at Midnight”
“grounded in nature,” thus ensuring the validity of Coleridge’s use of this distinction in the practical criticism of Wordsworth’s poetry in volume two.

While the deduction is launched from a framework that is heavily indebted to Schelling, the deduction itself is an attempt to offer a corrective to Schelling’s system. Since, for Schelling, it is only in aesthetic intuition that the identity of the real and ideal are objectively represented, the work of art can show what the philosopher can only deduce but never fully represent. As Schelling writes:

Now what is this wonderful power whereby, in productive intuition (so the philosopher claims), an infinite opposition is removed? So far we have not been able to render this mechanism entirely intelligible, since it is only the power of art which can unveil it completely. This productive power is the same whereby art also achieves the impossible, namely to resolve an infinite opposition in a finite product. It is the poetic gift, which in its primary potentiality constitutes the primordial intuition, and conversely. What we speak of as the poetic gift is merely productive intuition, reiterated to its highest power. It is one and the same capacity that is active in both, the only one whereby we are able to think and to couple together even what is contradictory – and its name is imagination. (Transcendental Idealism 230)

Coleridge’s deduction attempts to render this mechanism fully intelligible.

Having only begun to outline such a deduction, Coleridge inserts the infamous “letter from a friend” and proceeds to describe the operations of imagination and fancy in two short paragraphs.

§2.3 – “Taken In” by Schelling: Coleridge’s 1818 Objections

Why does Coleridge abruptly stop the deduction, never to pick it up again? Based on his repeated attempts to read the Christian God into Schelling’s absolute self, it is not surprising that criticism has continually looked to Coleridge’s religious beliefs as the ground for an explanation. Orsini and McFarland, for example, presume that in the very
writing of chapter 13 Coleridge realizes that Schelling’s system left no place for a personal, Christian God and so drops the attempted deduction (Orsini *Idealism* 214-15; McFarland 40-43, 152). Yet as Christoph Bode notes, such readings fail to explain why the deduction breaks off at this point rather than at the earlier locations where Coleridge oversteps the bounds of Schelling’s system to assert his theism (609-10). Bode, writing from the conviction that Coleridge as philosopher is a “hopeless anachronism,” ironically suggests that Coleridge’s letter from a friend be read as a fiction or work of art, such that the *Biographia* implicitly acknowledges and fulfills Schelling’s claims concerning aesthetic intuition. Both the dive directly into Coleridge’s theology and the dismissal of Coleridge as a serious philosopher leave the deduction of the imagination after *Biographia Literaria*, as well as the imagination’s status as a philosophical principle, as open questions. It is on this point that Coleridge’s 1818 objections to Schelling – articulated most prominently in an 1818 letter to J. H. Green, the marginalia to Schelling’s *Introduction to the Outlines of a System of Natural Philosophy*, and several notebook entries dating from approximately the same time – are especially useful. While Coleridge writes in a notebook entry that Schelling’s errors are all attributable to his adoption of a form of pantheism (*CN* 3:4449), the particular objections that Coleridge raises concerning (1) Schelling’s presentation of his system, (2) the necessity of Schelling’s grounding principles, and (3) the role (or lack thereof) for experience in establishing the validity of these principles show more incisively how Coleridge felt Schelling’s system was not an appropriate framework in which to pursue his “proof” of the imagination. More importantly, these objections also suggest the possibility of an alternative means of establishing the validity of Coleridge’s principle of imagination.
Coleridge’s first objection is directed at Schelling’s “method of teaching the

If it is the task of transcendental philosophy to subordinate the real to the ideal,
then it is the task of natural philosophy on the other hand to explain the ideal from
the real. Both sciences are therefore one science and are distinguished only by the
opposing orientations of their tasks. Furthermore, since both orientations are not
only equally possible but equally necessary, each possesses the same degree of
necessity in the system of knowledge. (194)

Schelling’s presentation is an instance of what Coleridge elsewhere calls “the false
opposition of Real and Ideal that embarrasses Schelling” (*CM* 4:401). The opposition is
“false” in that the central tenet of Schelling’s system is the identity of nature and
intelligence, yet “embarrassing” because the opposition is what generates Schelling’s
description of the tasks of Nature- and Transcendental philosophy. The difficulty is that
there is no point at which either of the polar sciences can do without the “false
opposition” that both leads to their articulation and provides the necessity of their
complementary orientations. Coleridge likens this presentation to “putting the Candle
horizontally and burning it at both ends” (*CL* 4:874; *CM* 4:375). He emphasizes that “it is
not the doctrine itself that I am here blaming” but its manner of explication; Schelling
proceeds “to the explanation of the ideas from Organs &c, instead of Organization from
the Ideas” (*CM* 4:375). As a result, Coleridge notes that this “will appear to the Learner,
in his first perplexity, a mere Trick—viz. that one and the same Thing is called I, or
Intelligence, or our Intellect (Verstand) at one end, and Nature at the other” (*CM* 4:375).
Coleridge’s “Essays on Method” do not pre-suppose a division between the subjective
and the objective with the aim of eventually arriving at the identity of the one life within
us and abroad. That “false opposition” need not be introduced in the first place because it
does not pertain to the comprehension or intelligibility of the relations that form the proper concern of method.

Coleridge’s second objection concerns the adoption and justification of grounding assumptions within Schelling’s conception of Nature Philosophy. Namely, Schelling’s system requires that the natural philosopher, in addition to commencing with the objective in order to subordinate the ideal to the real, necessarily posit a specific notion of nature as both a product and an active, productive force. Schelling writes:

Assuming, for example, what must be assumed, that the sum of phenomena is not a mere world, but of necessity a Nature—that is, that this whole is not merely a product, but at the same time productive, it follows that in this whole we can never arrive at absolute identity. (Introduction 196)

Such a conception of nature stands in stark contrast to the prevailing mechanical view of the time, memorably described by Coleridge as the belief that nature is nothing but “a lifeless Machine whirled about by the dust of its own Grinding” (AR 400-01). Even though he was deeply sympathetic with Schelling’s doctrine, Coleridge responds to Schelling’s assertion that nature must necessarily be assumed to be both a product and productive by asking:

Warum angenommen werden muss? Warum nothwendig? [“Why must be assumed? Why necessarily?]. Needful for his system it may be! Susceptible of proof it may be — but assuredly requiring proof! Who can believe on the strength of a mere assertion, that a position, the contrary of which is assumed by nine out of ten, and held and supported by such men as Des Cartes, Sir I. Newton, &c &c, can be self-evident? (CL 4:873)

Schelling’s postulation of a particular conception of nature is an instance of Coleridge’s accusation that “I find in Schelling a frequent confusion of what is necessary for his system and what is necessary in itself” (CM 4:480).
Because Schelling believes that “the philosopher of nature treats nature as the transcendental philosopher treats the self” (Schelling First Outline 14), a parallel objection can be directed against Schelling’s Transcendental Philosophy, and hence, against the deduction of the imagination within Biographia Literaria. That is to say, if the conception of nature as productive requires proof, then so too does the grounding assumption of the self as intellectual intuition. Though Coleridge does not identify this parallel critique in his letter to Green, the issue haunts the attempted deduction of the imagination in Biographia Literaria. Ayon Roy has written that the Biographia is a “radically self-undermining text” insofar as it simultaneously advances intellectual intuition as the foundation of the attempted deduction of the imagination yet implicitly undermines this notion of intellectual intuition as a groundless assumption requiring proof. As Roy notes, the same issue appears in Coleridge’s marginalia to Schelling’s System of Transcendental Idealism:

> When I sink into myself, I have ever possessed intuitions like these; but when I read Fichte or Schelling, & of course judge by my discursive Intellect, then I am puzzled. For in order to account for the first limit or [o]bject, [S]elf-Consciousness is [p]re-assumed—[as] the [c]ause--& [y]et again [f]ind it a new [b]irth, & [i]ts [p]roduct a [c]ompound [a]ctivity [r]es[ulting from the presence of the Bound [o]bstacle. It is true, the Author warns us, [th]at these predicabilia of Time, fore & after, [a]re but metaphors of necessity, but then an unnecessary verbal Confusion! At leas[t] it seems exposed to Schelling’s own objection [to]

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28 See Roy (280). Like McFarland and Perry, Roy connects Coleridge’s inability to complete a philosophical system with the aborted deduction of the imagination in chapter 13 of Biographia Literaria. In Roy’s analysis, the deduction fails because Coleridge was unwilling to give up his “foundationalist intuitionism,” even as the Biographia itself provides means to criticize the notion as groundless. Reading these issues through Hegel’s critique of Schelling’s intuitionism, Roy concludes that Coleridge’s objection to Schelling is basically Hegelian in its attack on foundationalism, yet Coleridge himself remains strangely – and in Roy’s view, incorrectly – unwilling or unable to pursue a Hegelian trajectory. While its employment of Coleridge’s critique of materialism in Biographia Literaria as applied to Coleridge’s own inability to ground intellectual intuition is illuminating, Roy’s article is a prime example of the tendency to take the Biographia as the sole representative of Coleridge’s thought: other than one letter and scattered marginalia to three books, absolutely no examination is made of Coleridge’s work after the composition of Biographia Literaria.
Hypotheses, that they are made for the Fact, [or] rather f[or] the Sys[tem]” (CM 4:458).

Just as Coleridge is sympathetic to a view of nature as both product and productive, so too when he sinks into himself, he is sympathetic to a notion of intellectual intuition. Yet his response to the assumption of Schelling’s view of nature applies equally well to the assumption of intellectual intuition in Biographia Literaria: “Needful for his system it may be! Susceptible of proof it may be — but assuredly requiring proof!”

Coleridge’s third and most important objection pertains to the need for recourse to experience in the proof or support of certain kinds of principles. In his letter to Green, Coleridge finds an inherent contradiction in Schelling’s statement in the Introduction that “this absolute hypothesis [of nature as both product and productive] must carry its necessity within itself, but it must, besides this, be brought to empiric proof” (196).

Coleridge comments:

If his position, that a Principle of Natur-philosophie, belonging to Physics, and yet notwithstanding this a Principle strictly a priori, nay, an absolute Principle, can involve its own necessity and be properly self-evident — if (I say) this Position were true, we should have a right to infer, dass die Natur-wissenschaft müsse der Erfahrung (der äusseren, nähmlich) ganz und gar entbehren können [that Natural science must be able to do without experience (external, naturally) altogether]. (CL 4:875)

In a Notebook entry, Coleridge claims that Schelling runs into this contradiction through “the confusion of Ideas, with Theorems on one side, and <with> Anticipations on the other” (CN 3:4449). Coleridge’s distinction, briefly drawn, is that theorems refer to “the intelligible Products of mental Contemplation, that are Objects in, from, and for the mind exclusively” whereas Ideas, unlike, say, principles in mathematics, never exist solely for the mind, but are always correlative with a law of nature (F 459). Because it exists “in, from, and for the mind exclusively,” a theorem does not acquire necessity through
empirical testing. In Coleridge’s example, the necessity of “the geometrical Truth of the Arch as demonstrated from the essential properties of the Circle” has absolutely nothing to do with whether or not that truth is, or even could be, “adequately realized in a Bridge” (CL 4:875). Ideas and their anticipations, on the other hand, are not such self-evident, a priori principles; they require experimental establishment.

A parallel objection is made in the letter from a friend that interrupts the deduction of the imagination in Biographia Literaria. The letter-writer tells Coleridge that he will not “descend into the dark cave of Trophonius with you, there to rub my own eyes, in order to make the sparks and figured flashes, which I am required to see” (BL 1:302). Framed as part of Transcendental Philosophy, Coleridge’s deduction presumes that “the spirit in all the objects which it views, views only itself” (BL 1:278). Because the light generated by rubbing one’s eyes in a dark cave could only ever be used to make visible those “intelligible Products of mental Contemplation, that are Objects in, from, and for the mind exclusively,” the complaint of the letter writer amounts to the assertion that the imagination does not belong to such a category. Its validity as a principle, that is to say, cannot be secured from a transcendental deduction. Rather, its necessity as an “Idea” must be established experimentally. The letter from a friend, in this respect, is not ironic so much as propaedeutic.

Rather than secure its necessity through a transcendental deduction, Coleridge writes that “an Anticipation … acquires necessity by becoming an Idea; but it becomes an Idea in the moment of its coincidence with an objective Law: and vice versa, a constant Phaenomenon first becomes a Law in the moment of its coincidence with an Idea” (CL 4:876). Coleridge continues by stating that “I need not point out to you, my
dear Green! the practical Importance of this Correction” (CL 4:876). While Coleridge assumed that the practical importance of this correction would be evident to Green, it has not been so to his critics. Modiano, for example, cites it not as a correction of Schelling’s position, but as Coleridge’s own summary of the position that he is in fact criticizing (Nature 170). Roy cuts off the correction with Coleridge’s statement that an anticipation requires necessity by becoming an idea and comments that “[t]his is nothing other than Hegel’s ‘phenomenology of spirit’ … in which the Absolute is earned only at the end of the spirit’s journey through the various imperfect stages of knowledge” (293). This statement ignores Coleridge’s criticism of the systems of those “Doctors of the Absolute” – including, explicitly, Hegel’s – whose position he finds “utterly unintelligible except by the evolution of the whole system” (CN 3:4446). More incisively, Roy’s assumption that Coleridge’s and Hegel’s use of the term “idea” is either analogous or synonymous is a particularly egregious error given Coleridge’s repeated attempts outside of Biographia Literaria to explain the precise sense in which he uses the term. Roy, unfortunately, does not examine any of Coleridge’s numerous attempts to clarify the sense in he uses the term idea.

Coleridge’s correction is explored in greater detail in §5.2 through its connection to Coleridge’s proposed solution to what he identifies as the highest problem of philosophy. As we will see, Coleridge’s correction, through his precise sense of “idea,” suggests an alternative means to establish the validity of the mind’s essential creativity – the task that so exercised Coleridge in Biographia Literaria. Coleridge’s objections additionally open the way to a novel consideration of the principles of method.
§3 – Tautegory and the Romantic Symbol

It is a peculiar fact that the dates of publication of Coleridge’s *The Statesman’s Manual* (December 1816) and *Biographia Literaria* (July 1817) invert the order in which the two texts were composed.\(^\text{29}\) *The Statesman’s Manual* employs the earlier description of imagination, but it does not attempt to provide an alternate means to establish its validity as a philosophical principle. In this chapter, my interest in Coleridge’s lay sermon pertains to its introduction of one term -- “tautegory” -- and development of another term -- “idea” -- that play prominent roles in the 1818 “Essays on Method.” This section examines Coleridge’s notion of “tautegory,” albeit primarily in its relation to the symbol, while chapter 4 opens up this account of tautegory within a consideration of Coleridge’s use of “idea.”

As is indicated by its subtitle, the main argument of Coleridge’s *Statesman’s Manual* is that the Bible, if read in the appropriate manner, remains our “Best Guide to Political Skill and Foresight” (*LS* 3). Coleridge urges that in order to function as such a guide, the narratives in the Old Testament must be understood as possessing “a two-fold significance” as “at once Portraits and Ideals” (*LS* 30). The theoretical crux of *The Statesman’s Manual* pertains to Coleridge’s understanding of this two-fold significance as *symbolic* rather than *allegorical*. While *Biographia Literaria* attempts to establish the distinction between imagination and fancy as a “torch of guidance” for the literary critic, Coleridge’s *Statesman’s Manual* makes similar claims for the usefulness of the distinction between symbol and allegory for the statesman as a reader of the Bible.

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\(^{29}\) Publication and composition histories are provided in the comprehensive introductions to each volume. See Bate and Engell (xli-lxvii) and White (xxix-xliv).
It is within his distinction between allegory and symbol that Coleridge introduces his coinage *tautegory* as a fusion of “tautology” and “category.” As no single passage in Coleridge, save the description of imagination and fancy in chapter 13 of *Biographia Literaria*, has attracted as much critical attention as his theorization of the symbol from *The Statesman’s Manual*, it is surprising that neither the new critical champions of the romantic symbol nor their deconstructive and historicist critics provide any extended analysis of Coleridge’s coinage. This, even while continual and explicit references are made by both schools to the passage in which “tautegory” first appears. In this chapter I build from Coleridge’s description of tautegory as the name for those relations that express one and the same subject in different ways to argue that tautegory is best understood as a *genus* or *kind* of relational structure to which symbol belongs as one *species*. As such, the rhetorical structure of tautegory provides the key to substantiating Coleridge’s claim that symbol and allegory may be “distinguished *toto genere*” (*AR* 264). This interpretation grants tautegory an expansive role within Coleridge’s philosophy.

30 An anticipation of Coleridge’s notion of tautegory may be found in the work of Peter Sterry (1613-1672), an English theologian who served as chaplain to Oliver Cromwell and who is often associated with the Cambridge Platonists through his study and brief Fellowship at Emmanuel College, Cambridge. Sterry articulates this type of relation in a posthumously published sermon: “But then again, the same Truth may appear under contrary Notions, and in contrary Opinions. This is the Glory of Spiritual Things, that they can cloth themselves with all manner of Earthly Shapes. It is the Greatness and Majesty of Jesus Christ, that he passes thro’ all Forms and all Conditions; and yet still is the same in the midst of them all. Is there any thing more contrary than a Cross and a Throne? And yet you may see the same Jesus in both: *One Man esteemeth one Day above another: Another esteemeth every Day alike*, Rom. 14.5,6. Both these are contrary, and yet both regard a Day, or regard not a Day to the Lord: that is, both in their Opinions and Notions have the same Apprehensions of the Glory of God, and both have the same aim to make himself a Spiritual Sacrifice to God” (*Appearance* 410). Sterry’s articulation of a relation that preserves sameness with difference seems to be dependent upon contrary notions, while Coleridge’s idea of tautegory includes relations that encompass but are not limited to contrary manifestations.

31 The term is slowly but surely beginning to attract critical attention. Nicholas Halmi identifies Coleridge’s use of the term in conflating the relations of participation and identity within his definition of the symbol (*Genealogy* 130-31). Leroy Searle notes how Coleridge coinage highlights Coleridge’s recognition of a relation that mediates between the literal and the metaphorical (“Inference” 1022). Paul Hamilton identifies the crucial connection between ‘tautegory’ and ‘idea,’ but does not provide an extended analysis of this connection, confining his examination of tautegory primarily to Schelling’s own appropriation of the word (*German Philosophy* 103-11).
frees the term from a necessary dependence upon the symbol, while dissolving many of the interpretive problems that have befallen the expositors and critics of the latter term.

§3.1 – Coleridge’s Rhetorical Taxonomy: Symbol as One Species of Tautegorical Relation

The lack of critical attention devoted to tautegory is at least partially due to the manner in which Coleridge first presents his new word. Not only is the term unaccompanied by any explanation or analysis in The Statesman’s Manual, but it is introduced within a single parenthetical note—and appears in Greek! Coleridge writes: “a Symbol (σ εστιν αει ταυτηγόρικον) is characterized by a translucence of the Special in the Individual or of the General in the Especial or of the Universal in the General” (LS 30). A working definition of ταυτηγόρικον is not provided until the 1825 Aids to Reflection:

Symbols and symbolical expressions, the nature of which as always tautegorical (i.e. expressing the same subject but with a difference) in contra-distinction from metaphors and similitudes, that are always allegorical (i.e. expressing a different subject but with a resemblance). (AR 206)

Whereas the apparent contrast in The Statesman’s Manual is between “allegory” and “symbol,” the contrast in this later passage is between the “allegorical” and the “tautegorical” as broader categories of relation. These broader categories form the basis of Coleridge’s rhetorical taxonomy.

The allegorical describes the relational structure of metaphors and similes, in which one subject is used to express a second subject that it resembles. The tautegorical, by contrast, describes the relational structure of a symbol, in which one and the same
subject is expressed in different ways. The following chart is useful for keeping track of these distinctions.

![Diagram of Coleridge's Rhetorical Taxonomy]

**Figure 2. The Basic Divisions of Coleridge's Rhetorical Taxonomy.**

To avoid terminological confusion, it is necessary to distinguish Coleridge’s notion of the allegorical from the contemporary use of “allegory” as the name for a well-known literary device. Thus, as M.H. Abrams and Geoffrey Galt Harpham define it in their *Glossary of Literary Terms*, an allegory consists of “a narrative … in which the agents and actions … are contrived by the author to make coherent sense on the ‘literal,’ or primary, level of signification, and at the same time to communicate a second, correlated order of signification” (5). This contrasts with Coleridge’s use of “allegorical” as a category that includes *all* relations of resemblance.

The paradigm case of an allegorical relation, on Coleridge’s definition, is the simile, a relation where the resemblance between two subjects is explicitly marked, usually by the words “as,” “like,” or “so.” The following lines from “The Rime of the Ancient Mariner” provide an instance: “And ice, mast-high, came floating by, / As green as emerald” (*PW* 1:377; emphasis mine). In Coleridge’s analysis, a metaphor is a relation of the same kind. The only difference between the two, on Coleridge’s account, is that in a metaphor the marker of resemblance is contracted, though still implied: “A Simile by
absorption of the particle of assimilation becomes a Metaphor” (CN 4:4832). The following lines from “The Rime of the Ancient Mariner” provide an instance of metaphor: “The moonlight steeped in silentness / The steady weathercock” (PW 1:407). Coleridge conceives of the specific device of allegory as continua metaphora: “A connected series of Metaphors to one Whole is an Allegory” (CN 4:4832). Coleridge’s larger category of the allegorical, that is to say, includes “allegory” as it is understood more narrowly in the previous passage from Abrams and Harpham. The primary level of signification in such a narrative whole is used to express a secondary level that it resembles. While there is nothing new in Coleridge’s treatment of simile, metaphor, and allegory as possessing the same basic structure as similarity or resemblance relations, his innovative critique of allegory in The Statesman’s Manual is directed at the restriction of language to merely allegorical uses.

Coleridge’s most frequently cited example of a tautegorical relation is the part-to-whole figure of synecdoche. To understand why synecdoche follows the relational structure of tautegory, consider Coleridge’s example of a sail that is used to stand for a ship. The sail and its ship are not separate objects that formally resemble one another. In that case the relation between the two would be allegorical. Rather, the sail is itself part of the whole that it belongs to. In its use in a synecdoche, the sail expresses the same subject (i.e., the whole ship) as the ship itself expresses, though it expresses that subject in a different manner than the ship itself. Any synecdoche wherein an actual part is chosen to represent a whole counts as a tautegorical relation (“expresses the same subject, but with a difference”) for the same reason.
In its broadest conception, Coleridge simply defines the symbol through the part-to-whole relation of synecdoche. Thus, in an 1815 Notebook entry: “Symbol = ‘the whole, yet of the whole a part’” (CN 3:4255). This description of the symbol as synecdoche is also found in his Lectures on Literature and in Aids to Reflection. In the former text Coleridge describes “the Symbolical” as “always itself a part of that whole of which it is representative—Here comes a Sail—that is, a Ship” (LLects 2:417-18), while in the latter text Coleridge defines a symbol as “a sign included in the Idea, which it represents: ex. gr. an actual part chosen to represent the whole, as a lip with a chin prominent is a Symbol of Man” (AR 263). As is examined in greater detail below, Coleridge substantially refines this notion of symbol as synecdoche in The Statesman’s Manual.

If, as I am claiming, the tautegorical functions for Coleridge as a genus of relation, it should admit of more than one species. This prompts the question of whether there is another way of “expressing the same subject but with a difference” than through the part-to-whole figure of synecdoche. Coleridge’s notion of “analogy” provides at least one such species: “it is the sameness of the end, with the difference of the means which constitutes analogy” (SW&F 1:531). In Coleridge’s own example from “Theory of Life,” the lungs of a man are analogous to the gills of a fish or to the spiracula of an insect because each of the three terms – “lung,” “gill,” “spiracle” – name a different formal means of achieving the same end of respiration. Coleridge’s definition of analogy implies “a difference in sort, and not merely in degree” (SW&F 1:531). A difference in degree would result in an allegorical – not analogical – relation, as one might say that the lungs of a monkey resemble the lungs of a man.
The chart above may be modified so as to represent a fuller Coleridgean taxonomy of relational structures:

![Relational Structure Diagram]

Figure 3. A Fuller Depiction of Coleridge's Rhetorical Divisions.

The diagram illustrates how tautegory provides the basis for understanding Coleridge’s claim that the symbol may be “distinguished *toto genere* from the Allegoric and the Metaphorical” (*AR* 264). As will emerge in chapters 4-6, the basic division of relations between tautegorical and allegorical is crucial for understanding both Coleridge’s precise sense of the term “idea” and his view of the function of the secondary imagination.

§3.2 – Defining the Symbol: *The Statesman’s Manual*

Coleridge explicitly contrasts “symbol” with “allegory” and significantly refines his notion of symbol as synecdoche in the following, well-known passage from *The Statesman’s Manual*:

Now an Allegory is but a translation of abstract notions into a picture-language which is itself nothing but an abstraction from the objects of the senses; the principal being more worthless even than its phantom proxy, both alike unsubstantial, and the former shapeless to boot. On the other hand a Symbol (σ εστιν αει ταυτηγόρικον) is characterized by a translucence of the Special in the Individual or of the General in the Especial or of the Universal in the General.
Above all by the translucence of the Eternal in and through the Temporal. It always partakes of the Reality which it renders intelligible; and while it enunciates the whole, abides itself as a living part of that Unity, of which it is the representative. The other are but empty echoes which the fancy arbitrarily associates with apparitions of matter, less beautiful but not less shadowy than the sloping orchard or hill-side pasture-field seen in the transparent lake below. (LS 30-31)

The taxonomic chart above that distinguishes “symbol” and “allegory” on the basis of relational structures is directly applicable to the distinctions that Coleridge draws in this passage. The chart even allows us to read Coleridge’s remarks on “symbol” as providing something like a classic, Aristotelian genus-differentia definition of the term. Coleridge states that the symbol “is always tautogorical” – that is, belongs to the genus “tautegory” – and then differentiates it from other figures possessing this relational structure as (1) characterized by a condition of “translucence” and (2) as a synecdoche that “partakes of the Reality which it renders intelligible.”

In drawing out these distinctions it is helpful to remember Coleridge’s contention that symbols possess a “two-fold significance” as “at once Portraits and Ideals.” An “allegory” uses one level of signification – a Portrait – to convey a second, correlated level of signification – an Ideal. Its relational structure is patently “allegorical” in that one subject is used to express a second subject that it resembles. Because the allegorical proxy is always pointing to something else, a portrait possessing its own, intrinsic interest would distract from the correlated ideal and so subvert its purpose. Coleridge diagnosed this problem as the danger and “grievous fault” of his own talk: “my illustrations swallow up my thesis” (CN 2:2372). The successful allegorical proxy is formed by abstracting out all those features or qualities that do not help to convey the ideal and so becomes “unsubstantial,” a surface or “picture-language” that possesses no intrinsic depth outside
of its illustrative function. It “translates” an “abstract notion” that is equally “unsubstantial,” and, because it requires the proxy to be rendered intelligible, is “shapeless to boot.” Coleridge characterizes allegory through the optical phenomenon of reflection. The proxy is likened to the surface of a lake that “translates” by reflecting an “abstract notion” or Ideal that cannot be grasped alone.

The symbol, by contrast, is “always tautegorical” in that it involves one and the same subject, expressed differently. A symbolic part is thus not a means of conveying a second, different subject. It is one subject that is itself “at once Portrait and Ideal.” Unlike the allegorical proxy, the symbolic part is not devoid of intrinsic interest but communicates its meaning through that interest. The symbolical part, in other words, is the tangible component of the Ideal. “No ideas but in things” (Paterson 6), to stretch William Carlos Williams’ later catchphrase.

Coleridge characterizes the symbol through the optical phenomenon of “translucence.” The terms involved in this transluence – “individual,” “special” or species, “general” or genus, and “universal” – are familiar Aristotelian distinctions that convey a nested relation of inclusion. The individual may be subsumed under a species, which itself may be subsumed under a genus, and this genus may be part of a more inclusive, or universal, category. In a symbol, the more inclusive category always shines through the less inclusive term: it is a transluence “of the Special in the Individual,” “of the General in the Especial,” “of the Universal in the General,” or “of the Eternal in and through the Temporal.” The optics of transluence are employed to figure how symbols possess “two-fold significance” as “at once Portraits and Ideals”: if the symbolic part was
opaque, the Ideal could not shine through it, just as the Portrait itself would not be visible if the part was purely transparent.

The second differentia qualifies the notion of symbol as synecdoche by stipulating that it must “partake of the Reality which it renders intelligible.” In an appendix to The Statesman’s Manual, Coleridge more explicitly states that the symbol is “an actual and essential part” of the whole that it represents (LS 79). In writing that the part is “essential,” Coleridge seems to mean that the part shares the same essence, or nature, as the Ideal that translucently shines through it. Not every synecdoche does this. To use Coleridge’s earlier example, a lip with chin prominent would stand in a synecdochal relation to a man in the same sense that a rancher speaks of head of cattle as standing for a count of bodies of cattle. However, a lip with chin prominent would not stand in a symbolic relation to mankind, because the part, while “actual,” is accidental in that it neither shares nor exemplifies the nature or essence of a person. It is no “living part” of humanity.

Coleridge’s definition of the symbol as a tautegorical relation, (1) characterized by the “translucence” of a more inclusive term in a less inclusive term and (2) wherein the less inclusive term is an “actual and essential part” of the whole shining through it, properly differentiates symbol from allegorical relations such as “simile,” “metaphor,” and “allegory” which relate two different subjects according to some basis of similarity or resemblance. In the next section, I present an example that both satisfies Coleridge’s definition of symbol and suggests some of its theoretical implications.
§3.3 – The Coleridgean Symbol Exemplified: Wallace Stevens’ “Not Ideas About the Thing, But the Thing Itself”

For an apt illustration of the Coleridgean symbol and its significance, consider the relation between the bird’s cry and the sunrise in Wallace Stevens’ poem, “Not Ideas About the Thing, but the Thing Itself.” This poem, with which Stevens chose to close his *Collected Poems*, consists of six stanzas of three lines each and is reproduced in its entirety below.

At the earliest ending of winter,
In March, a scrawny cry from outside
Seemed like a sound in his mind.

He knew that he heard it,
A bird’s cry, at daylight or before,
In the early March wind.

The sun was rising at six,
No longer a battered panache above snow . . .
It would have been outside.

It was not from the vast ventriloquism
Of sleep’s faded papier-mache . . .
The sun was coming from outside.

That scrawny cry – it was
A chorister whose c preceded the choir.
It was part of the colossal sun,

Surrounded by its choral rungs,
Still far away. It was like
A new knowledge of reality. *(Poetry 451-52)*

Stevens’ title recalls Coleridge’s remark in *The Statesman’s Manual* regarding the misery of *his* age – its inability to recognize a medium between the literal and the metaphorical. The poem’s title appears to present no third way: it claims to give us the (literal) thing itself, rather than another idea about the thing. To borrow the words of another Stevens’
poem, the title suggests a search straight “to the object / At the exactest point at which it is itself” (402).

To see the thing itself, for Stevens, is to see it according to what he calls its “first idea.” As Stevens explains the notion in his correspondence, this activity is like “taking the varnish and dirt of generations off a picture,” “it is getting rid of the paint to get at the world itself” (Letters 402, 426). To get at the world itself is to see it without the accumulated associations that have been attached it by means of allegorical relation. The setting of the poem reinforces this attempt at uncluttered vision: it takes place during a 6:00 A.M. sunrise, in March, “at the earliest ending of winter.”

The six stanzas of the poem divide neatly into three groups of two. The first two stanzas present us with a man who hears a bird’s cry. Even though the cry “seemed like a sound in his mind,” the man concludes that the source of the sound was external, that it was “from outside.” The third and fourth stanzas present the same movement with respect to the rising sun. The sun is not a product of the man’s dreams, that “vast ventriloquism / Of sleep’s faded papier-mache.” Like the bird’s cry, it belongs to the external world: “The sun was coming from outside.” Having established the exteriority of both the bird’s cry and the rising sun, the final two stanzas relate one to the other. The cry, now “a chorister whose c preceded the choir,” is described as “part of the colossal sun, / Surrounded by its choral rings.” The crucial question for the reader of the poem involves the nature of this relation as it compares both to the poem’s title (“Not Ideas About the Thing but the Thing Itself”) and to the poem’s closing simile (“It was like / A new knowledge of reality”).
As an instance of synecdoche (the bird’s cry “was part of the colossal sun”) rather than similitude, this relation is, in Coleridge’s terminology, *tautegorical*. More specifically, what Coleridge writes of the symbol in *The Statesman’s Manual* applies with force to the bird’s cry in relation to the rising sun: it “partakes of the Reality which it renders intelligible; and while it enunciates the whole, abides itself as a living part of that Unity, of which it is the representative.” The bird’s cry announces the sunrise and the onset of Spring. It partakes of this Reality as participant, and in so doing possesses the same nature or character as the very advent – the whole – that it represents. The first light of Spring *prefigures* the soon-to-blossom growths of the season, just as the “c” of the bird’s cry *promises* to blossom into the full singing of a choir. In Coleridge’s figuration, then, the light of the new day (and the new season) illuminates the bird’s cry, which in its anticipatory activity is itself an “actual” and “essential” part of a burgeoning world of sun. One could not ask for a better exemplification of the Coleridgean symbol.

Yet how is this relation to be read in conjunction with the title of the poem? The title promises the thing itself and the poem renders it neither literally nor metaphorically, but *tautegorically*. To see the bird’s cry at “the exactest point at which it is itself” is to recognize the larger relations that it participates in and that it translucently displays. These relations are not the product of the imagination of the speaker of the poem, his own addition of a fresh coat of paint over a reality that we can never quite strip bare. B.J. Leggett has perceptively written of the poem that even though “[t]he external world is not *his* fiction, the product of *his* perspective, yet it retains its status as an artifice of some order” (25). Because such artifice inheres in the world, the poem closes by likening the
bird’s cry, as symbol, to “a new knowledge of reality,” a view of reality as shot through with tautogorical relations.  

Coleridge announces a similar conception of the world in the “Essays on Method” through noting that

in all inferior things from the grass on the house top to the giant tree of the forest, to the eagle which builds in it its summit, and the elephant which browses on its branches, we behold – first, a subjection to universal laws by which each thing belongs to the Whole, as interpenetrated by the powers of the Whole; and, secondly, the intervention of particular laws by which the universal laws are suspended or tempered for the weal and sustenance of each particular class, and by which each species, and each individual of every species, becomes a system in and for itself, a world of its own. (F 517).

This passage highlights some of the increasingly expansive “wholes” that may be seen to shine through various smaller “parts” within symbolic relations. It encompasses a view that, as we will see below, Coleridge both advocates for in his conversation poems and finds disclosed to us within the scientific work of his contemporaries.

§3.4 – The Stakes of the Coleridgean Symbol: Numinousness and Foresight

32 Or, as Peter Sterry puts nearly the same point in his Discourse on the Freedom of the Will: “Every thing as it lieth in the whole piece, beareth its part in the Universal Consort.… Every part is tyed to the whole, and to all the other parts, by mutual and essential Relations. By virtue of these Relations, All the distinct proportions, of all the parts, and of the whole, meet in one, on each part, filling it with, and wrapping it up in the rich Garment of the Universal Harmony, curiously wrought, with all the distinct and particular Harmonies” (Discourse 30). Sterry elsewhere ties this to his idea of wisdom as “that Contrivance, that Harmony of Things, that casts the Fullness of Things into each Thing” (Rise 163). Drawing on the example of portrait painting, Sterry writes that “in a good Picture, all the Proportions of the whole Face meet, and concenter as it were, in each Line, Point, or Touch; giving you from thence a Cast of the Beauty of the whole” (Rise 163). To read the world in the same way one looks at a Van Dyck is to understand wisdom: “So hath God prepared, and appointed all his Works in Wisdom, like an Excellent Picture; that the Fulness of the Whole, and the Beauty of all Parts may show forth themselves from every Part” (Rise 163). The objects of the world are all illuminated with the "Wisdom of God," in that, like the cry of Stevens’ bird, each object is curiously wrought with the mutual and essential relations that tie it both to other parts and to the whole(s) that it belong(s) to. Each object, thus considered, may be seen as what Sterry calls "the Gate of the Creation" (Rise 163). Such understanding is, according to Sterry, “that Traffique of Wisdom, which makes the Merchandise of it, better than that of Silver, Gold, or Pearl” (Rise 163).
Stevens’ poem foregrounds some of the ontological and epistemological issues at stake in Coleridge’s theory of the symbol. The drama of the poem lies in how its presentation of the bird’s cry as symbol undermines the view of reality reflected by its title, a view that anchors reality in literal things. The poem suggests “a new knowledge of reality” by revealing the tautegorical or symbolic nature of the thing itself. A full analysis of Coleridge’s theory of the symbol requires an examination of the view of reality responsible for its inclusion within a rhetorical taxonomy, as well as a consideration of its role in mediating both access to and knowledge of that reality.

In drawing out these stakes of Coleridge’s theorization of the symbol, it is helpful to briefly return to Coleridge’s contention that symbols possess “two-fold significance” as “at once Portraits and Ideals.” The symbolic part is not an allegorical proxy for conveying a different subject. It is itself the tangible part of the ideal: the bird’s cry in Stevens’ poem is “part of the colossal sun, / Surrounded by its choral rings.” In terms of the optical register that Coleridge employs, it is only a translucent part that may embody or contain the light of the ideal. A purely transparent part loses all status as a portrait, disappearing from the tangible world altogether, while a completely opaque part blocks all access to the ideal.

The possibility of a world whose tangible parts are all opaque was the constant threat of the mechanical philosophy so prevalent in Coleridge’s lifetime. Coleridge relates the difficulties of his own felt-experience of living in a world without symbols in the following comment from a 1797 letter:

… more frequently all things appear little—all the knowledge, that can be acquired, child’s play—the universe itself—what but an immense heap of little things?—I can contemplate nothing but parts, & parts are all little—!—My mind feels as if it ached to behold & know something great—something one &
indivisible—and it is only in the faith of this that rocks or waterfalls, mountains or caverns give me the sense of sublimity or majesty!—But in this faith all things counterfeit infinity! (CL 1:349).

Coleridge’s letter identifies that a world of opaque parts places severe restrictions on what we can “behold” in the world as well as on the kind of “knowledge that can be acquired” within such a world.

In the first case, Coleridge presents the desire for access to “something great—something one & indivisible” as a basic human need. The problem of a world of opaque parts is that no access to, or perception of, such an ideal is possible. It is a world in which “all objects (as objects) are essentially fixed and dead” (BL 1:304). The ideal can only be attributed by an act of faith. Once attributed, one could allegorically relate this ideal as like the sublimity of a waterfall or as resembling the majesty of a mountain, but these statements are mere metaphors in that they do not establish any tangible connection to that ideal. At best, faith in such an ideal guides Coleridge to connect and view “all things” as partaking of the same sublimity and majesty that this faith leads him to feel in looking upon a waterfall or a mountain, though with a recognition that these parts merely “counterfeit infinity.” At worst, faith is buried under a “heap of little things” and the ideal vanishes altogether. On the hunt for a symbol, all Coleridge can find are allegorical relations.

Coleridge continues the letter by quoting lines from his “This Lime-Tree Bower My Prison.” In their original context, the lines imagine Charles Lamb viewing a landscape at sunset in which the light of the falling sun helps to transform the opaque parts of the landscape into symbols:

… my Friend
Struck with deep joy may stand, as I have stood,
Silent with swimming sense; yea, gazing round
On the wide landscape, gaze till all doth seem
Less gross than bodily; and of such hues
As veil the Almighty Spirit, when yet he makes
Spirits perceive his presence. \((PW 1:352-3)\)

The juxtaposition of these lines with the complaint of living in universe comprised solely of little parts suggests one purpose of Coleridge’s conversation poems. They exemplify a process through which one moves from the view of all tangible parts as opaque to a view of the world as symbolic, as translucently displaying the immanence of the ideal. Such moments are familiar hallmarks of many of Coleridge’s conversation poems.

“In Frost at Midnight,” for example, a world of symbolic parts underlies the hope Coleridge expresses for the education of his son Hartley:

So shalt thou see and hear
The lovely shapes and sounds intelligible
Of that eternal language, which thy God
Utters, who from eternity doth teach
Himself in all, and all things in himself. \((PW 1:456)\)

While these symbols express the world as the tangible language of a creator, the possibility of symbolic moments can also be used to express a pantheist ideal, as in “The Eolian Harp”:

And what if all of animated nature
Be but organic Harps diversly fram’d,
That tremble into thought, as o’er them sweeps,
Plastic and vast, one intellectual Breeze,
At once the Soul of each, and God of all? \((PW 1:230)\)

These moments are not limited to Coleridge’s own poetry, but, of course, occur prominently throughout the English romantics. Coleridge’s “intellectual Breeze” finds an analogue in Wordsworth’s “sense sublime of something far more deeply interfused,” just as Coleridge’s valorization of the symbol’s ability to provide the “translucence of the
eternal in the temporal” finds an analogue in William Blake’s invitation “To see a World in a Grain of Sand / And Heaven in a Wild Flower, / Hold Infinity in the palm of your hand / And Eternity in an hour” (490).

Because of the prevalence of such moments in Romantic poetry, many of the critical commonplaces converge in these passages. Within Coleridge studies more narrowly, the conflict between the intellectual breeze of “The Eolian Harp” and the more conventional theology of “This Lime-Tree Bower My Prison” and “Frost at Midnight” foreshadow McFarland’s reading of Coleridge as unable to wholeheartedly reject or accept pantheism. In a broader context, the moment when the part transforms from opaque into a translucent symbol might be easily accommodated within M.H. Abrams’ observation that the greater romantic lyric “rounds upon itself to end where it began, at the outer scene, but with an altered mood and deepened understanding which is the result of the intervening mediation” (“Structure” 682). Paul de Man argues that such symbolic moments amount to “tenacious forms of self-mystification” (Blindness 208). And so it goes. As Nicholas Halmi has recently summed up the critical assessment of the stakes of the symbol: “to defend Coleridge’s concept of the symbol is to affirm the vision, or at least the hope, of a world endowed with an inherent numinousness” (“Allegory” 347).

Yet what happens to the other stake of the symbol, as announced in Coleridge’s 1797 letter? In a world of opaque parts, Coleridge states that not only are we unable to “behold” anything more than a “heap of little things,” but that we cannot “know” anything worthwhile in such a world: “all the knowledge, that can be acquired, child’s play.” For Coleridge, access to the ideal guarantees not only our ability to “behold” the
numinousness of the world, but, more importantly, it secures our ability to possess and utilize significant “knowledge” about it.

While the first issue forms the backdrop of the conversation poems and has been treated in the criticism _ad nauseum_, the second issue forms the backdrop of _The Statesman’s Manual_. As indicated by its subtitle, at issue is not numinousness, but “political skill and foresight.” The overriding concern of Coleridge’s lay sermon is that such “foresight” derives only from the knowledge of ideas. These alone generate “predictions which in containing the grounds of fulfillment involve the principles of foresight, and teach the science of the future in its perpetual elements” (LS 7-8).

Coleridge claims that without access to the ideal, knowledge possesses no predictive power but only provides a retrospective generalization. It would be possible to note correlations between past events, but knowledge could not probe any deeper into the phenomena, and thus there would be no surety that these correlations will continue to hold in similar situations. As Coleridge writes: “Alas! like lights in the stern of a vessel they illuminated the path only that had been past over!” (LS 12). Such knowledge is essentially “allegorical”: it provides only an “abstract notion” between two parts that resemble each other in a limited number of respects. These resemblances not only efface the other observable differences between these parts, but provide no secure anticipation or guarantee of “foresight.”

The argument of _The Statesman’s Manual_ is that the Bible provides the best guide to political science because it is an especially rich locus of ideas: “_IDEAS [are] spoken out everywhere in the Old and New Testament_” (LS 24). The reason that Coleridge turns to a theorization of the symbol in _The Statesman’s Manual_ is because, as he writes in
Biographia Literaria, “an IDEA in the highest sense of the word, cannot but be conveyed by a symbol” (BL 1:156). Coleridge claims that the symbolic narratives of the Bible thus present not only a “more comprehensive form” of principles which may also be found in writers such as “Thucydides, Tacitus, Machiavel, Bacon, or Harrington,” but, additionally, as symbols they offer these principles in a “more intelligible” form (LS 17).

“At once Portraits and Ideals,” Coleridge argues that biblical narratives “partake of the Reality they render intelligible,” announcing while exemplifying ideas that, in their predictive power, offer “a mine of undiscovered treasures,” “a new world of Power and Truth” (LS 50) to the statesman.

This is far removed from numiniousness. The Statesman’s Manual advances several major claims on behalf of Coleridge’s notion of “idea,” but it provides neither an extended analysis of this term nor an analysis of how one may elicit ideas from either Biblical narratives or from nature. It is only in an appendix to the volume that Coleridge begins to take up these larger questions. Coleridge closes The Statesman’s Manual with a “Glossary” of philosophic terms. The final term Coleridge defines is “idea”:

[T]hat which is neither a Sensation or a Perception, that which is neither individual (i.e. a sensible Intuition) nor general (i.e. a conception) which neither refers to outward Facts nor yet is abstracted from the FORMS of perception contained in the Understanding; but which is an educt of the Imagination actuated by the pure Reason, to which there neither is or can be an adequate correspondent in the world of the senses—this and this alone is = AN IDEA. Whether Ideas are regulative only, according to Aristotle and Kant; or likewise CONSTITUTIVE, and one with the power and Life of Nature, according to Plato, and Plotinus … is the highest problem of Philosophy, and not part of its nomenclature. (LS 113-14)

So ends The Statesman’s Manual. While the volume simply proceeded upon the assumption that ideas are one with the power and life of nature, Coleridge here identifies the status of ideas as “the highest problem of Philosophy.”
Just as *Biographia Literaria* demonstrates the usefulness of the notion of the imagination for practical criticism while failing to provide an adequate “proof” of its validity as a principle, so too does the *Statesman’s Manual* identify the value of ideas, but does not settle the problem of whether they are really one with the power and life of nature. The more immediate difficulty in Coleridge’s glossary, however, is that the definition of idea is incredibly spare. It tells more about what an idea is not than it provides a secure sense of what an idea actually is. Accordingly, I turn in chapter 4 to an analysis of Coleridge’s understanding of this term.

§3.5 – “The Blindness of Self-Complacency”: Paul de Man’s “The Rhetoric of Temporality”

As we have seen, Coleridge’s writings on symbol take repeated care to differentiate its tautegorical structure from metaphors, similes, and allegories that relate two different subjects upon some basis of resemblance or similarity. He repeats this point throughout his published writings (e.g., “by a symbol I mean, not a metaphor or allegory or any other figure of speech or form of fancy, but an actual and essential part of that, the whole of which it represents” [*LS* 79]) and *Notebooks* (e.g. “A Symbol on the other hand I define as ‘representing the Whole of that, of which it is itself an essential Part’ Ex. gr. The Eye is a Symbol of Vision. Instead of being *allegorical*, it is therefore so far necessarily *taute*gorical” [*CN* 4:4711]). Yet, one turns to the secondary literature to find numerous critics explicating or criticizing the Coleridgean symbol as if it simply possesses the allegorical structure of a metaphor.
The most influential such reading is undoubtedly Paul de Man’s “The Rhetoric of Temporality.” De Man’s analysis of the symbol is based upon his presumption that “[t]he fundamental pattern of the structure remains that of a formal resemblance between entities that, in other respects, can be antithetical” (Blindness 195). The target of de Man’s criticism is to this structure -- the structure of allegorical relation. For a more recent example, Seamus Perry’s Coleridge and the Uses of Division quotes Coleridge to support the claim that “Metaphors equivocate between sameness and difference, ‘grounded on an apparent likeness of things essentially distinct’; and emphasis falls various on what is in common and what diverse,” but ascribes this same allegorical structure to the symbol: “The Coleridgean symbol is a secular version of the Coleridgean metaphor” (88-89). To find the same mistake reiterated across thirty years of scholarship, between critics of contrasting temperaments and methods, points to an issue deeper than, and additional to, a series of mere misreadings which collectively seem to ignore Coleridge’s repeated assertions that symbol and metaphor possess different relational structures.

The irony is that Coleridge prefaces his theorization of the symbol in The Statesman’s Manual with a diagnosis of the very mistake that criticism has shown a tendency to reiterate in its attempts to explicate the very paragraph in which Coleridge offers his warning. In the sentences immediately preceding his theorization of the symbol, Coleridge writes:

It is among the miseries of the present age that it recognizes no medium between Literal and Metaphorical. Faith is either to be buried in the dead letter, or its name and honors usurped by a counterfeit product of the mechanical understanding, which in the blindness of self-complacency confounds SYMBOLS with ALLEGORIES. (LS 30)
Coleridge’s statement should at least give pause to the critic who wishes to claim that the symbol is really an instance of a metaphorical or allegorical relation. Coleridge already knows that many will try to collapse the distinction between symbol and allegory, and as a preemptive warning against this precise move he states that such confounding is a direct consequence of the inability to recognize a medium between literal and metaphorical. To contend that the symbol possesses the same relational structure as allegory, without attending to Coleridge’s own diagnosis of what may lay behind such a move, is to ignore Coleridge’s own “golden rule” of reading articulated in *Biographia Literaria*: “until you understand a writer’s ignorance, presume yourself ignorant of his understanding” (*BL* 1:232).

More generally, and to a large extent, the difficulties besetting Coleridge criticism in this case stem from what Leroy Searle calls “the resolutely dialectical character of critical discourse,” where dialectic, following Aristotle, is conceived as “a form of argument based on commonplaces and already received beliefs” (“Inference” 1007). That is to say, critical discourse is grounded in the commonplaces of prior criticism and so remains reluctant to consider the original grounding of such commonplaces. The most curious case within the critical history of writing on Coleridge’s theory of symbol is de Man’s “The Rhetoric of Temporality,” an article once called “the most photocopied essay in literary criticism” (*Blindness* xvi). Strikingly, Coleridge’s theorization of the symbol itself contains the very gist of de Man’s criticism of the readings of the romantic symbol provided by M.H. Abrams and Earl Wasserman; in addition, de Man’s own position remains perhaps the clearest illustration of an inability to recognize a medium between literal and metaphorical. Coleridge’s own theorization of the symbol, that is to say,
provides the theoretical tools to mediate the very critical discourse that has surrounded it: it does a better job of explaining the shape of this discourse than this discourse explains his theorization. To return to the larger, theoretical claims made by Coleridge and analyzed by de Man may seem anachronistic both because the theoretical debate ignited by de Man’s article seems to have played itself out years ago, and because the profession has moved away from consideration of such issues in the direction of an ever narrower historicizing of the various political contexts surrounding the immediate composition of Coleridge’s texts. My argument is that the issues involved in Coleridge’s writings on the relational structure of the symbol were never properly framed as theoretical, remaining firmly trapped within the conceptual orbit of de Man’s essay, an orbit that he himself simply borrowed from Abrams and Wasserman.

In a well-known passage from his 1967 “Crisis and Criticism,” de Man contrasts a notion of “authentic criticism” or “genuine literary criticism” with “all kinds of approaches to literature: historical, philological, psychological, etc.” that “never put the act of writing into question by relating it to its specific intent” (Blindness 8). His 1969 “Rhetoric of Temporality” is presented as such an exercise in authentic criticism, eschewing a merely “normative or descriptive” rhetoric for a theorization of “the intentionality of rhetorical figures,” in this case of “allegory” and “irony” (Blindness 188). The two terms are treated within the confines of the same article because de Man

33 As Daniel Fried writes in his 2006 “The Politics of the Coleridgean Symbol”: “De Man’s uses of Romantic material have been vigorously disputed, and the Statesman’s Manual has been revisited. The sources for the symbol-allegory distinction in German criticism, its relation to Coleridge’s religious and philosophical thought, and the implications for Coleridge’s own verse all have been thoroughly argued” (763).

34 Though anyone who believes that such historicism is any less vulnerable than the theoretical positions that de Man took on in “The Rhetoric of Temporality” has simply not been paying attention. See especially Pfau’s articulation of the “axioms concerning the projected benefits of an accumulative (not to say transactional) mode of scholarly production” (“Shipwreck” 955-56).
finds the concept of “time” to be the “original constitutive category” of both terms (207). Each figure, in de Man’s analysis, is caught in the familiar deconstructive predicament of non-coincidence with a source.

Whereas de Man begins his theorization of “irony” from “the structure of the trope itself,” he treats the structure of “allegory” only after a “historical de-mystification … show[ing] that the term ‘symbol’ had in fact been substituted for that of ‘allegory’ in an act of ontological bad faith” (211). The historical de-mystification covers nineteenth- and twentieth-century writers as well as twentieth-century critics who, in stressing the superiority of symbol to allegory, introduce value judgments that impede the sort of inquiry into the intentionality of rhetorical terms that de Man seeks to provide. Coleridge is drawn into the argument as the English romantic writer who most explicitly valorizes symbol over allegory.6

According to de Man’s well-known conclusion, whereas the symbol postulates the possibility of an identity between the symbolic part and its source, allegory soberly

35 As a paradigmatic example of dialectical criticism, Carol Jacobs provides an illuminating reading of the relation between these strategies in applying the rhetorical intentionality of de Man’s notion of “irony” to de Man’s historical narrative regarding “symbol” and “allegory” in Telling Time. In Jacobs’ analysis, “as de Man’s irony becomes increasingly conscious of itself, it demonstrates the impossibility of being historical. It rejects its own temporal movement of correcting error to produce (illusory) wisdom and recognizes it or rather performs it as a problem that exists within the rhetoric of temporality. In speaking of other critics and other theories of language, de Man necessarily spread out along the axis of imaginary time what is, in fact, simultaneous within his text” (157). But this “ironization of allegory,” Jacobs notes, can be read as itself “an allegorization that privileges irony,” which, of course, must in turn “be viewed ironically” (157). and so on. While Jacobs writes that this endless replacement “can be read as a text engendering other, critical texts or as a text reading itself, as a gain in critical knowledge or as an irresolvable split and endless vacillation” (158), the simpler point is that the structure she describes is itself a familiar result of a paradox of self-predication. The intentionality of this structure points to an underlying logical problem, one that can never be isolated or ascertained if one merely stays within the concepts that de Man is thinking with.

36 Though de Man’s real concerns are not historical, it is difficult to see William Blake’s assertion of the superiority of this mode over the allegorical as any less emphatic and explicit than Coleridge’s passage from The Statesman’s Manual: “Fable or Allegory are a totally distinct & inferior kind of Poetry. Vision or Imagination is a Representation of what Eternally Exists. Really & Unchangeably. Fable or Allegory is Form’d by the daughters of Inspiration who in the aggregate are called Jerusalem. The Hebrew Bible & the Gospel of Jesus are not Allegory but Eternal Vision or Imagination of All that Exists <Note here that Fable or Allegory is Seldom without some Vision Pilgrims Progress is full of it the Greek Poets the same but … <Allegory & Vision> ought to be known as Two Distinct Things” (554).
acknowledges the impossibility that the allegorical proxy could ever coincide with the abstract notion that it translates. De Man identifies the motive behind the symbol’s postulation of an identity as nothing less than an attempt to thwart the inevitability of death. In de Man’s view, the fundamental fact of human existence is mortality, just as the fundamental fact of nature is an enduring permanence. The desire for coincidence or identity expressed by the symbol is the desire to borrow and ascribe the continuity of nature for the self. If this were not bad enough, Coleridge, in de Man’s view, fails even to recognize nature at all, but mistakenly substitutes another subject for nature. Hence, Coleridge emerges as the most mystified proponent of the symbolic tradition.

One of the peculiarities of de Man’s article, however, is that it provides no evidence that he has read a single primary source by Coleridge. As his footnotes indicate, every single quotation by Coleridge is taken from one of four secondary works, and not one of these quotations is discussed in the context of its appearance in Coleridge’s own writing. De Man’s argument thus presumes the coincidence of Coleridge’s thought with a very selective critical summary of that thought. The unfortunate result is that all inadequacy or shortsightedness in these readings of Coleridge is also necessarily present in de Man’s article. Most prominently, de Man simply takes over the notion that the relational structure of symbol is itself allegorical, the same relational structure as a metaphor that identifies a formal resemblance between two different subjects.37 Second, in arguing that Coleridge does not even recognize nature, de Man is unwittingly

37 Part of the peculiarity of “The Rhetoric of Temporality” is that de Man himself expresses an awareness that the view is he taking over from Abrams and Wasserman may not be an adequate representation of Coleridge: “But the conception of metaphor that is being assumed, often with explicit reference to Coleridge, is that of a dialectic between object and subject, in which the experience of the object takes on the form of a perception or a sensation” (193). Yet this acknowledgment evidently did not prompt de Man to go read Coleridge with any more care, and he seems to have forgotten this observation in the following pages of the article that simply conflate Coleridge with his critics.
rehearsing a view of Coleridge ultimately derived from Coleridge’s own plagiarism from Schelling in chapter 12 of *Biographia Literaria*, notably the assumption that the spirit, in whatever object it views, is only viewing itself.

Yet de Man does not even fare well in attempting to explicate the one extended passage by Coleridge that he cites, the distinction between symbol and allegory in *The Statesman’s Manual*. After summarizing Coleridge’s dissatisfaction with the unsubstantiality and thinness of allegory, de Man expresses surprise that Coleridge does not immediately praise the symbol in opposite terms, but instead characterizes symbol through the optical phenomenon of “translucence”: “One would expect the latter [symbol] to be valued for its organic or material richness, but instead the notion of ‘translucence’ is suddenly put into evidence” (192). De Man’s surprise is strange because, as we have seen, it is precisely the condition of “translucence” that allows for the material richness of the symbol. Immediately after providing an extended quotation from Coleridge on the kinds of translucence evinced in a symbol, de Man makes the following slip, ignoring the optical phenomena that he has just drawn attention to: “The material substantiality dissolves and becomes a mere reflection of a more original unity that does not exist in the material world” (192). Whereas Coleridge employs the concept of “translucence” as the guarantor of material substantiality, de Man changes translucence into *reflection* and then claims that the material substantiality is lost. Having erroneously substituted one concept for another, de Man then takes Coleridge to task for a confusion that is entirely of de Man’s own making: “It is all the more surprising to see Coleridge, in the final part of the passage, characterize allegory negatively as being *merely* a reflection” (192).
In substituting “reflection” for “translucence,” de Man changes the structure of the symbol from tautegorical to allegorical. The symbol is no longer the tangible part of the ideal – the same subject, expressed with a difference – but becomes a “mere reflection” of a different subject, a subject that now “does not exist in the material world.” It is the sort of error that would have made one of I.A. Richards’ protocol writers blush, though de Man is not writing from such a state of innocence. De Man needs to remove any chance that the original unity could exist in the world, or else allegory could not claim its authenticity through recognizing its inability to coincide with that unity. In his substitution, we see the germ of de Man’s argument that symbol is a mystified version of allegory.

For all that, de Man’s identification of the strategy by which the symbolist mystifies himself by attempting to borrow temporal stability from nature is a prominent feature of some Romantic thought. And while de Man states that “this strategy is certainly present in Coleridge” (197) – though de Man neither argues for this assertion nor cites a passage in support of it – it is a familiar move in Wordsworth’s poetry. Prefiguring so much of the criticism on Wordsworth, this move was, in fact, first analyzed as such by Coleridge in *Biographia Literaria* as a characteristic form of...

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38 B.J. Leggett explicates a similar case from another seminal essay of deconstructive criticism -- J. Hillis Miller’s “Stevens’ Rock and Criticism as Cure” – in *Late Stevens: The Final Fiction*. As Leggett convincingly demonstrates, Miller’s essay turns upon the failure to recognize that the word “of” in Stevens’ “a cure of the ground” is used possessively within the poem to refer to the ground’s cure. Legget suggests that the rhetoric of misreading that surrounds the articulation of deconstructive theory often masks the cogency of the proffered reading: “The ability of Miller’s rhetoric of misreading to distract us from the text under examination, to direct our attention away from the basis of the interpretation being offered, may be one explanation for the fact that in the decades since ‘Stevens’ Rock and Criticism as Cure’ appeared, no one has pointed out just how badly it distorts Stevens’ poem in the service of the theory it sought to institute” (112). I argue that something analogous occurs with respect to de Man’s invocation of Coleridge in “The Rhetoric of Temporality.”
Wordsworth’s “mental bombast,” one that is particularly evident in the “Intimations of Immortality” Ode (BL 2:136-141).\(^\text{39}\)

At stake in Coleridge’s theory of the symbol is not an attempt to cheat death, but, more simply, a recognition that the tangible parts of the world are not a heap of opaque little parts, already fixed and dead as part of a universe whirled about by the dust of its own grinding, but that these parts are themselves animated:

The germinal power of the Plant transmutes the fixed air and the elementary Base of Water into Grass or Leaves; and on these the Organific Principle in the Ox or the Elephant exercises an Alchemy still more stupendous. As the unseen Agency weaves its magic eddies, the foliage becomes indifferently the Bone and its Marrow, the pulpy Brain, or the solid Ivory. That what you see is blood, is flesh, is itself the work, or shall I say, the translucence, of the invisible Energy, which soon surrenders or abandons them to inferior Powers (for there is no pause nor chasm in the activities of Nature) which repeat a similar metamorphosis according to their kind. (AR 398)

The symbol allows us to see the parts – the “blood” and “flesh” – as the tangible component, the “translucence” of a germinal power. When Coleridge invokes “the one life within us and abroad” (PW 1:233), the basis of the identification is that the fact that self and nature are both alive, both animated by a germinal power, though Coleridge himself expressed hesitation over this last qualification in Biographia Literaria: “For aught I know, the thinking Spirit within me may be substantially one with the principle of life, and of vital operation” (BL 2:139).

De Man’s verdict concerning Coleridge is not merely that he failed to recognize nature within a “pseudo dialectic” of the symbol. De Man’s own argument proceeds from the conviction that the synthesis that Abrams and Wasserman claim is the purpose of the symbol is impossible. It is the allegorical mode alone that recognizes the truth that the

\(^{39}\) Zachary Gartenberg explicates Coleridge’s criticism on this point and extends it to a reading of Wordsworth’s “Tintern Abbey” in his “The Book of God, the Book of Nature, and the Book of Man: Wordsworth’s ‘Tintern Abbey’ and Psalm 23.”
separation between subject and nature as permanent: “This unveiling [of the self’s authentically temporal destiny in allegory] takes place in a subject that has sought refuge against the impact of time in a natural world to which, in truth, it bears no resemblance” (206). In place of an argument or evidence as to why the subject “bears no resemblance” to the natural world, de Man only offers the locution, “in truth.” De Man simply assumes that the primary fact of subjectivity is its mortality, and the primary fact of nature is its permanence or “endurance within a pattern of change”: “such paradoxical assertions of eternity in motion can be applied to nature but not to a self caught up entirely within mutability” (207). De Man’s rhetorical skill is on full display in such passages. He draws attention to half of a relation (the mortality of the self) that no one would doubt, and, ignoring the other half of the relation, proceeds in his argument as if to disagree with him is to dispute an undisputed fact. And on what basis does de Man assert the other half of the relation, the attribution of this kind of permanence to nature? This issue moves beyond de Man’s entanglement with four critical assessments of Coleridge to the heart of the theory of reality responsible for his analysis of the intentionality of rhetorical structures.

De Man’s ascription of permanence to nature is simply assumed in “The Rhetoric of Temporality.” Leroy Searle’s “From Inference to Insight” has shown that an ascription of permanence to nature is similarly assumed in de Man’s earlier “Intentional Structure of the Romantic Image.” Even though it is not argued for, de Man explicates this permanence in more detail in his argument concerning the difference between the mode of origination of “cognitive” entities like words and “natural” entities like flowers:

But the natural object, safe in its immediate being, seems to have no beginning and no end. Its permanence is carried by the stability of its being, whereas a
beginning implies a negation of permanence, the discontinuity of a death in which an entity relinquishes its specificity and leaves it behind, like an empty shell. Entities engendered by consciousness originate in this fashion, but for natural entities like the flower, the process is entirely different. They originate out of a being which does not differ from them in essence but contains the totality of their individual manifestations within itself. All particular flowers can at all times establish an immediate identity with an original Flower, of which they are as many particular emanations. The original entity, which has to contain an infinity of manifestations of a common essence, in an infinity of places and at an infinity of moments, is necessarily transcendental. *(Rhetoric 4-5).*

Searle comments that this passage presupposes throughout a ‘stability of being’ that, if it is anything at all, could be known neither as a Cartesian innate idea (since it is neither clear nor distinct) nor an observable fact (since even the simplest observation of flowers controverts it), but it is rather as a pure metaphysical supposition that is not, here at least, laid out for critical examination (“Inference” 1011-12).

The position is never laid out for critical examination precisely because of the reasons that Searle identifies. It is pure mystification. Yet remove this groundless assumption from de Man, and his argument concerning “symbol” and “allegory” in “The Rhetoric of Temporality” collapses.

On the one hand, de Man’s analysis of symbol and allegory depends on his own thorough mystification of nature. On the other hand, de Man’s “Rhetoric of Temporality” adopts a notion of symbol as a kind of allegorical relation or metaphor from articles by Abrams and Wasserman, and thereby misses Coleridge’s repeated statements that the relational structure of the symbol is not allegorical. In pointing out that this allegorical relational structure cannot do the work promised by the symbol, de Man’s criticism of Abrams and Wasserman only reiterates a point already made by Coleridge. Unable to recognize a medium between literal and metaphorical, de Man himself does not admit the possibility of tautegorical relations: one is limited either to an authentic allegory that acknowledges the non-coincidence of an image with its source or to a mystified notion of
unmediated intuition. Coleridge anticipated this inability to recognize the *tautegorical* relational structure in his theorization of the symbol in *The Statesman’s Manual*: faith is either buried in the dead letter (*à la* de Man) or the relational structure of symbol is confounded with that of metaphor (*à la* Abrams and Wasserman). This critical debate would not have surprised Coleridge in the least, though it also indicates that Coleridge himself was ahead of the most influential twentieth-century discourse about him.

In the firestorm ignited by de Man’s article, neither the view of reality behind his analysis of the intentionality of rhetorical figures (which requires the complete mystification of the natural world), nor Coleridge’s own diagnosis of an inability to recognize a medium between literal and metaphorical, are brought to light. A leading feature of much of the subsequent criticism is an attempt to tighten the contextual range in which the Coleridgean symbol is properly employed. For example, Abrams indirectly responds to de Man’s “Rhetoric of Temporality” by insisting that the concept is exclusively theological and should not be carried over into literature: “Symbol, is for Coleridge a specialized term that he applies only to objects in the Book of Scripture and the Book of Nature” (*Breeze* 221). Abrams’ response stands behind Perry’s above-quoted analysis of the Coleridgean metaphor as a secular version of the Coleridgean symbol. The particular difficulty is that Abrams, in adopting the posture that he more thoroughly read Coleridge, was apparently unaware of Coleridge’s discussion of the symbol as underlying Laurence Sterne’s humorous play on the trope of synecdoche within *Tristram Shandy* (*LLects* 2:417-18). In addition to its restriction to religious texts, the symbol has been similarly restricted to narrower historical and political contexts, as for example in Daniel Fried’s “The Politics of the Coleridgean Symbol.” As Fried’s intent is not to analyze the
relational structure of the symbol, he simply quotes Perry on the symbol as a sacred version of metaphor (774). While such criticism is undoubtedly informative, such contextual restriction neither challenges the assumption that the relational structure of the symbol is allegorical nor considers the grounding of de Man’s own argument in a mystified conception of nature. Surprisingly, these questions are also not taken up in criticism that attempts to show that Coleridge’s writings on symbol are more complex and interesting than de Man reveals. Raimonda Modiano correctly points out that de Man does not connect Coleridge’s theory of symbol to any larger themes within Coleridge’s own thought — “de Man gives us neither a sense of how varied and intricate Coleridge’s conception of symbolism is, nor a context in which to understand Coleridge’s transcendental leanings” (Nature 224) — though her own lucid account of these connections does not question de Man’s analysis of the essentially allegorical nature of the underlying relational structure. Jerome Christensen similarly argues that de Man misrepresents the complexity of Coleridge’s writings on symbol, and even notices some of the slips that de Man makes in his analysis of Coleridge (“Allegory” 644). However, in arguing that Coleridge’s “blessed machine of language” already knowingly deconstructs itself, Christensen does not challenge the correctness of de Man’s views either of the relational structure of symbol or of nature: his remarks on de Man are primarily a dialectical examination of the consistency of de Man’s application of an allegorical mode of reading.40 Nicholas Halmi’s The Genealogy of the Romantic Symbol proceeds from the

40 For instance, Christensen notes: “de Man treats Coleridge’s theory of the symbol symbolically, as if this thing called theory had a self-sufficient integrity that would enable one to isolate it from the network of textual relations in which it appears and to thereby identify something like ‘Coleridge’s thought.’ If, as de Man argues, there is a contradiction between Coleridge’s stated epistemology, and his ideological claims for the symbol, such a difference, insofar as it is textual, could only be articulated through a rhetoric of temporality. It is an error for the deconstructor to privilege theory and practice as either discrete, inviolable
presumption that the concept of symbol is “irrational,” in the ways that de Man and Walter Benjamin identify, and rather than thinking that it could ever be exemplified or defended as a figure in and of itself, turns instead to a genealogy that investigates the motives behind its employment in Romanticism (1-26). (Halmi, curiously, does not include within these motives the connection of the symbol with an “idea” that alone is said to provide universal, predictive power, the predominant concern in The Statesman’s Manual, and reflected in its subtitle). Halmi at least broaches the topic of the tautegorical as different from the relational structure of allegory, but he assumes from the start that this is irrational, a conflating of the notions of identity and participation (130-31), rather than a proper relational structure in its own right. The criticism attests to the difficulty of recognizing a medium between literal and metaphorical, and shows at least one respect in which Coleridge’s “present age” is still very much our own.
§4 – “The True Import and Legitimate Use of the Term, Idea”

Coleridge’s *Statesman’s Manual* presents ideas as the *relations* that animate and translucently shine through the tangible parts of the world. The volume closes with a formal definition of the term “idea” and identifies the question as to whether ideas are really “one with the power and Life of Nature” as “the highest problem of Philosophy” (*LS* 131). The importance of ‘ideas’ for Coleridge cannot be overestimated, as the following selection from an 1825 *Notebook* entry makes evident:

> [I]f I shall have thus taught as many as have in themselves the conditions of learning the true import and legitimate use of the term, Idea, and directed the nobler and loftier minds of the rising generation to the incalculable Value of Ideas (and therefore of Philosophy, which is but another name for the manifestation and application of Ideas) in *all* departments of Knowledge, not merely technical and mechanic, and their indispensable presence in the Sciences that have a worth as well as a Value to the Naturalist no less than to the Theologian, to the Statesman no less than to the Moralist … I shall have deserved the Character which the fervid Regard of my friend, Irving, has claimed for me, and fulfilled the high Calling, which he invokes me to believe myself to have received.41 (*CN* 4:5293)

This “true import and legitimate use of the term, Idea” takes on increasing prominence in Coleridge’s writings after *Biographia Literaria*. While, in the words of one commentator, “a full account of Coleridge’s use of the word ‘idea’ would itself be another book” (Levere 95), some clarity can readily be achieved by attending to the fact that in nearly all of his invocations of the term Coleridge takes care to desynonymize “idea” from “conception.” Unlike the distinctions between imagination/fancy and symbol/allegory, there is no single, canonical passage wherein Coleridge differentiates ‘idea’ from ‘conception’ that has subsequently become a locus for critical inquiry. A comprehensive

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41Since Coleridge’s point pertains to the value of ideas for inquiry in general, I omit from the main text Coleridge’s list of particular disciplines: “— in Philology, Organology, in Psychology, as *subjective*, and in physiological Anatomy as *objective*, Analytique, in Chemistry as the correspondent Science de Minimis and Astronomy as the correspondent Science de Maximis” (*CN* 4:5293).
examination of these terms must be drawn from a selection of texts, including Coleridge’s *Notebooks* and *Marginalia*.

In this chapter I analyze Coleridge’s use of ‘idea’ and ‘conception’ by examining several differences between the two terms. I show that an idea is always coordinated to a particular aim or function, while a conception represents one formal means of instantiating that aim or function. This implies that the two terms possess different relational structures. An idea as such can only be rendered *tautegorically*, often by noting how it *serves to guide, bring about, or account for* relations among a series of representations. By contrast, a conception, in holding fast an idea, locks it into a certain fixed form as the result of *allegorical* relation whereby we observe, compare, and enumerate properties common to different items by means of abstraction. These considerations are illustrated by means of an example that Coleridge frequently invokes: the arrangement of items in John Hunter’s Museum of Natural History. However, before undertaking such analysis, it will be necessary to consider some important background. Although he departed in profound ways from Kant’s understanding of the term “idea,” Coleridge’s insights into that notion are nevertheless heavily informed by the Kantian background which he himself meticulously absorbed.

§4.1 – The Kantian Background

Coleridge’s identification of the “*highest problem of Philosophy*” as “whether Ideas are regulative only … or likewise *constitutive*, and one with the power and *Life of Nature*” (*LS* 131) is undeniably Kantian is its formulation. It treats the major result of the *Critique of Pure Reason* as an open question, one that Coleridge will answer in a
contrary manner to the philosopher. That his reading of Kant exerted a great influence
upon Coleridge’s thought is well-known.\textsuperscript{42} It is stated nowhere more eloquently than in
Coleridge’s own account of his intellectual obligations in \textit{Biographia Literaria}:

The writings of the illustrious sage of Königsberg, the founder of the Critical
Philosophy, more than any other work, at once invigorated and disciplined my
understanding. The originality, the depth, and the compression of the thoughts;
the novelty and subtlety, yet solidity and importance, of the distinctions; the
adamantine chain of the logic; and I will venture to add … the \textit{clearness} and
\textit{evidence}, of the ‘\textit{CRITIQUE OF THE PURE REASON;}’ of the \textit{JUDGMENT;} of the
‘\textit{METAPHYSICAL ELEMENTS OF NATURAL PHILOSOPHY,;}’ and of his ‘\textit{RELIGION
WITHIN THE BOUNDS OF PURE REASON,;}’ took possession of me as with a giant’s
hand. After fifteen years familiarity with them, I still read these and all his other
productions with undiminished delight and increasing admiration. (\textit{BL} 1:153)

In this section I examine those aspects of Kant’s work – the distinction between idea and
concept, the formation of empirical concepts, and “purposiveness” as the \textit{a priori}
principle of judgment – that inform Coleridge’s statement of, and answer to, the highest
problem of philosophy. The purpose of this section is to provide background information
to better understand the precise sense in which Coleridge uses the term, idea. It is not a
comprehensive account of Kant’s overall presence or relevance to Coleridge’s thought.\textsuperscript{43}

Coleridge’s appreciation of the “solidity and importance” of Kant’s “distinctions”
is especially evident in the “glossary” he appends to \textit{Statesman’s Manual}. Coleridge’s
glossary is, for the most part, little more than a translation of Kant’s description of the
genus of \textit{representation} from the end of Section I of the first book of the Transcendental
Dialectic in the \textit{Critique of Pure Reason}. Other than Coleridge’s preference for the term
“presentation” in place of Kant’s “representation,” Coleridge’s only departures from Kant
are found in his definition of idea. Coleridge’s description of an idea as “an educt of the

\textsuperscript{42} More comprehensive accounts of Coleridge and Kant are provided by Wellek, McFarland, and Bode.
\textsuperscript{43} No mention is made, for instance, of the parallels between Kant’s notions of productive and reproductive
imagination and Coleridge’s imagination and fancy.
Imagination actuated by the pure Reason” (LS 113) links “imagination” to “idea,” and this crucial connection is explored in §5.2. In Kant’s unfolding of the taxonomy of representation:

The genus is representation in general (repraesentatio). Subordinate to it stands representation with consciousness (perceptio). A perception which relates solely to the subject as the modification of its state is sensation (sensatio), an objection perception is knowledge (cognitio). This is either intuition or concept (intuitus vel conceptus). The former relates immediately to the object and is single, the latter refers to it mediately by means of a feature which several things may have in common. The concept is either empirical or a pure concept. The pure concept, in so far as it has its origin in the understanding alone (not in the pure image of sensibility), is called a notion. A concept formed from notions and transcending the possibility of experience is an idea or concept of reason. (A320/B377)

Notably, Kant does not provide a comprehensive taxonomy of the genus representation so much as a Platonic diaeresis or series of two-fold divisions leading to his definition of ‘idea.’44 This becomes clear when Kant’s taxonomy is rendered in diagrammatic form.

Figure 4. Kant’s Taxonomy of the Genus ‘Representation.’

44 A Platonic example may be found in the definition of the angler from Sophist (218d-221c).
Kant begins by dividing the class of representation into two parts: representations with consciousness – perceptions – and representations without consciousness. Perceptions are then divided again into two parts: knowledge/cognitions and sensations. And so it continues: cognitions are divided between concepts and intuitions; concepts are divided between empirical and pure; etc. The divisions are made largely on the basis of some form of the subjective/objective distinction.\textsuperscript{45}

Kant’s analysis identifies a ‘concept’ as one of two types of conscious representation that refer to an object. Whereas an ‘intuition’ is a singular representation that relates immediately to an object, a concept is a “universal” or “\textit{reflected}” representation which refers to its object by means of a shared collection of features or characters (\textit{Logic} 589). Kant further distinguishes “pure” from “empirical” concepts. The content of empirical concepts is drawn from experience. Thus, as in Kant’s example from the \textit{Jäsche Logic}, one forms the concept of a tree from a process of comparison, abstraction, and generalization from a series of intuitions of individual trees. The content of a pure concept, or category, is not drawn from experience, but is derived from a classification of types of judgment. Because empirical concepts refer to objects that we individuate and interact with in the context of possible (spatiotemporal) experience, they refer to objects in the more or less commonplace use of the term “object” as including only those kind of items that Samuel Johnson might pride himself upon kicking -- \textit{material things} like rocks and books and trees.

\textsuperscript{45} The shift from Plato’s clunky and ineffectual attempts at diaeresis to Aristotle’s more comprehensive and lasting taxonomic divisions may be analogized to the shift from Kant’s diaeresis of “representation” to C. S. Peirce’s comprehensive analysis of signs. See, for a start, Peirce’s “Nomenclature and Divisions of Triadic Relations, as Far as They Are Determined” (\textit{EP} 2:289-99). Peirce’s examination of the genus ‘representation’ is not only more comprehensive than Kant’s, but Peirce’s divisions are not dependent upon a distinction between subjective/objective.
Kant writes that “the only use which the understanding can make of these concepts is to judge by means of them” (A68/B93); more particularly, concepts serve as “predicates of possible judgments” (A69/B94). That is to say, given an empirical concept (e.g., “tree”), the “only use” of the concept is to state whether or not a given representation may be subsumed underneath it (e.g., “this is a tree”). A suitable intuition may always in principle be presented for a concept. In conforming to a sensible intuition, the shared collection of features designated by a concept constitute a representable object.

An “idea,” by contrast, is described by Kant as a concept whose object can never be met with in experience. Ideas, for Kant, include objects (e.g., the idea of “virtue”) that can be partially, but never fully, exemplified in experience, as well as objects (e.g., the idea of “transcendental freedom”) that do not even admit of a partial exemplification in experience (Judgment 219). As such, an idea is never constitutive of an object. Ideas do, however, play a regulative role in unifying the relations among concepts. As an example, Kant writes that the idea of continuous gradation in the great chain of being prompts or guides the inquirer to look for continuity between species, and thus serves a regulative function; however, the idea is not constitutive because no suitable intuition could ever be presented that would correspond to it. The idea of continuous gradation does not determine anything about nature; it merely helps to unify the relation between empirical concepts.

Of particular relevance to Coleridge’s methodological writings is Kant’s account of the formation of empirical concepts. Kant analyzes the generation of such concepts in terms of a three-stage process of comparison, reflection, and abstraction. One of Kant’s
few examples of this process pertains to the formation of the empirical concept “tree” and is found in the Jäsche Logic:

To make concepts out of representations one must thus be able to compare, to reflect, and to abstract, for these three logical operations of the understanding are essential and universal conditions for generation of every concept whatsoever. I see, e.g., a spruce, a willow, and a linden. By first comparing these objects with one another I note that they are different from one another in regard to the trunk, the branches, the leaves, etc.; but next I reflect on that which they have in common among themselves, trunk, branches, and leaves themselves, and I abstract from the quantity, the figure, etc., of these; thus I acquire a concept of a tree. (Logic 591)

Kant’s brief example raises two immediate difficulties. The first pertains to the designation of particular features (“trunk,” “branches,” “leaves,” “etc.”) in the process of comparison and the second pertains to the number of representations required to form the concept.

In the first case, the devil lies in the details of Kant’s “etc.” There would be no difficulty if there were only a finite number of characters that could serve as points of comparison: one could simply enumerate them all. However, Kant consistently argues that the understanding is obliged to consider this “etc.” as indefinitely determinable. In the first Critique, this is presented through what Kant calls the “law of specification”:

“Empirical specification soon comes to a stop in the distinction of the manifold, if it be not guided by the antecedent transcendental law of specification, which, as a principle of reason, leads us to seek always for further differences, and to suspect their existence even when the senses are unable to disclose them” (A657/B685).

The law of specification -- as an example of the regulative employment of an idea (and in combination with two other such ideas: the homogeneity of forms and the continuity of forms) -- delimits the very space in which the understanding successfully operates.
Kant’s argument in the *Jäsche Logic* concerning the inability of ever attaining a lowest species also attests to the impossibility of providing an exhaustive or finite list of characters. As Kant there writes, “even if we have a concept that we apply immediately to individuals” -- in which case, it should be added, it would not be a concept -- “there can still be specific differences in regard to it, which we either do not note, or which we disregard”; it is not just that there may be such differences, for Kant continues to argue that the list of such differences only stops “through convention, insofar as one has agreed not to go deeper here” (*Logic* 595). This is consonant with Kant's claim earlier in the lectures that no complete list of characters can ever be provided for an empirical concept, since future inquiry may always disclose further distinguishing marks (565). Since the list of particular characters that may serve as points of comparison among any collection of objects can never be fully enumerated, what, we may ask, *directs* the selection of only certain features -- “the trunk, the branches, the leaves” -- and not others? To be more precise, the problem is not that there may be an indefinite number of points of comparison between a series of representations; rather, the problem is that an analysis of empirical concept formation must account for how the “tree-constituting” characters (e.g., trunk, branches, leaves) are distinguished and selected in the first place.

Besides the problem of designating points of comparison between a series of representations, there is an additional difficulty involved in the choice of the representations themselves. On what basis are these representations (e.g., a spruce, a willow, and a linden) selected? And what number of such representations is sufficient for securely grounding the empirical concept?
Coleridge summarizes both difficulties in the different but parallel context of theory formation in his “Essays on Method”: “For what shall determine the mind to abstract and generalize one common point rather than another? and within what limits, from what number of individual objects, shall the generalization be made?” (F 476).

Béatrice Longuenesse and Henry Allison have argued that the apparent circularity in Kant’s account of concept formation – namely, that the account presupposes that one is already in possession of those characters whose aggregation constitute the concept before one has formed it – is avoided if the comparison in the reflecting judgment is between schemata, or rules governing the apprehension of these characters. This is because the (pre-conceptual) possession of schemata can account for the capacity to distinguish between representations (say of a spruce, a willow, and a linden) on the basis of perceived structural features without thereby being in the position to discursively enumerate the defining marks of the species. The formation of an empirical concept thus requires first a movement from intuitions to schemata, and then a movement from schemata to the concept. To illustrate the necessity of both movements, Longuenesse turns away from Kant's example of the formation of a tree to his comparison in the

*Jäsche Logic* between a “savage” who sees a house for the first time and someone who is already in possession of the concept “house.” In Kant’s analysis:

If, for example, a savage sees a house from a distance, whose use he does not know, he admittedly has before him in his representation the very same object as someone else who knows it determinatively as a dwelling established for human beings. But as to form, this cognition of one and the same object is different in the two cases. In the former it is *mere intuition*, in the latter it is simultaneously *intuition and concept*. (Logic 544-45)

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46 There is only room for a brief summary here. See Longuenesse’s *Kant and the Capacity to Judge* and Allison’s *Kant’s Theory of Taste*. 
Longuenesse elaborates Kant's example by arguing that the “savage” lacks not only the concept 'house' but also the schemata as the necessary precondition for forming the concept. As she writes, absent a schema “there is no rule guiding him to privilege certain marks and leave aside others, so that a concept of house might apply” (118).

How, then, are schemata generated? Longuenesse accounts for the movement from intuition to schemata by arguing that it is a result of the same process of comparison that allows movement from schemata to the formation of a concept. In her words, “schemata arise from the very same acts of universalizing comparison of which they are the object” (117). Allison reconstructs Longuenesse's argument and applies it to the example of the “savage” as follows:

[T]he mind, in its universalizing comparison, is guided by the very same concepts of reflection that are operative in the comparison of schemata that leads to the formation of reflected concepts. Presumably, at this level, however, the comparison leads the mind to seek similarities and differences, which can at first be codified as schemata governing apprehension and then reflected as concepts. And this is possible … because this comparison is oriented from the beginning toward the acquisition of concepts applicable in judgments. Thus, Kant's savage, never having seen a house, initially had no basis of comparison to order his apprehension. But after seeing many similar objects, which he presumably relates by association, he will begin to perceive relevant similarities and differences, which, in turn, leads (under the implicit guidance of the concepts of comparison) to the formation of a schema of a house as a rule governing apprehension, and possibly even the full-fledged concept. (27)

While this account is undoubtedly a careful refinement of Kant’s brief and confusing account of the formation of empirical concepts, it leaves all the prior difficulties in place. The problem was that, due to the indefinite determinability of the manifold, a theory of empirical concept formation needs to account for the ability to recognize relevant marks and discard irrelevant ones. In Allison’s account above, the “savage” merely “sees many similar objects,” “relates [them] by association,” and thus “perceives relevant similarities
and differences” that lead to the formation of a schema and ultimately to the concept. In the first place, the “savage” needs a basis for recognizing two objects as similar. More importantly, the relating of such objects by association, under the guidance of the concepts of reflection, manifestly does not lead to the perception of relevant similarities such as “trunks,” “branches,” and “leaves” any more than it leads to the perception of irrelevant characters such as “to the west of my house,” “over fifteen feet tall,” or “contains a bird’s nest.” This reconstruction is, to adopt a phrase from Coleridge, merely “the reiteration of the problem, not its solution” (F 481).

While Kant does not address these issues in the Jäsche Logic, they are treated at length in his introductions to the Critique of the Power of Judgment. Kant defines the power of judgment as “the faculty for thinking of the particular contained under the universal” (Judgment 66). This definition neatly divides judgments into two kinds. Determining judgments – the overwhelming focus of Kant’s discussion of judgment in the first Critique -- cover those cases where the universal is given and one subsumes a particular underneath it (e.g., “is this a tree?”), while reflecting judgments cover the contrary case, where the particular is given and one needs to discover a universal for it (e.g., “what is this?”). In Kant’s analysis the reflecting judgment is responsible for the formation of empirical concepts, the classification of the manifold into a hierarchical system of genera and species, aesthetic judgments concerning beauty or sublimity, and teleological judgments that ascribe ends or purposes to natural things.

Kant’s discussion of the reflecting judgment in the third Critique is explicitly attuned to the difficulties involved in his Jäsche Logic example of concept formation:

For it is open to question how one could hope to arrive at empirical concepts of that which is common to the different natural forms through the comparison of
perceptions, if, on account of the great diversity of its empirical laws, nature (as it is quite possible to think) has imposed on these natural forms such a great diversity that all or at least most comparison would be useless for producing consensus and a hierarchical order of species and genera under it. All comparison of empirical representations in order to cognize empirical laws in natural things and **specific** forms matching these, which however through their comparison with others are also **generically corresponding** forms, presupposes that even with regard to its empirical laws nature has observed a certain economy suitable to our power of judgment and a uniformity that we can grasp, and this presupposition, as an **a priori** principle of the power of judgment, must precede all comparison. (*Judgment* 17)

This presupposition that “nature has observed a certain economy suitable to our power of judgment and a uniformity that we can grasp” is a theme familiar from the first *Critique*, where it is analyzed in terms of three regulative ideas identified above: the homogeneity of forms, the specification of forms, and the continuity of forms (*A652/B680 - A664/B692*). The homogeneity of forms prompts us to search for higher genera or concepts under which given species may be subsumed, as for example, Kant himself tries to form the concept “tree” out of the representation of a spruce, a willow, and a linden. Kant maintains that this principle is not derived from experience but is presupposed by it: “for in the absence of homogeneity, no empirical concepts, and therefore no experience, would be possible” (*A654/B682*). The specification of forms prompts us to treat the manifold as inexhaustibly determinable, such that we can also always discover new subspecies underneath a given species. The continuity of forms combines the other two principles to prompt us to expect a gradual transition between species such that we “recognize a relationship of the different branches, as all springing from the same stem” (*A660/B688*). Kant holds that these three maxims of reason must be presupposed to make possible the formation of an empirical concept, yet they do nothing to clarify the means by which such concepts are generated in practice.
In Kant’s example of the savage who possesses an intuition but not a concept of a house, neither Allison nor Longuenesse pick up on Kant’s emphasis that the savage does not have a concept because he does not know the “use” of a house “as a dwelling established for human beings.” The important point is not that the savage lacks a schema but that he does not conceptualize the strange object in front of him because he does not know what it is for, what Coleridge calls its “idea” as “given by knowledge of its ultimate aim” (CC&S 13). Kant’s identification of purposiveness as the a priori principle of judgment in the third Critique makes explicit that the knowledge of such a “use” or “end” of an object leads to its conception:

Now since the concept of an object insofar as it at the same time contains the ground of the reality of this object is called an end, and the correspondence of a thing with that constitution of things that is possible only in accordance with ends is called the purposiveness of its form, thus the principle of the power of judgment in regard to the form of things in nature under empirical laws in general is the purposiveness of nature in its multiplicity. (Judgment 68)

Kant argues that it is only when “the ground of the reality” of an object is understood that it is possible to ascribe an “end” or “ultimate aim” to that object, and thus form a concept of it.

Coleridge, with Kant, holds that an ultimate aim “must likewise contain some principle of insight and positive assurance in respect to what is essential – that it must afford, or itself be, a criterion of the essential, and independent of the historical fact of such and such characters having always attended every [representation] hitherto” (CN 4:4940). The identification of an end or purpose guides reflection such that relevant characters or features may be noted. The difficulty in Kant’s example of the formation of the empirical concept ‘tree’ is that the process of comparison, reflection, and abstraction does not provide insight into the use or ultimate aim of the representations under
consideration. As I argue in chapter §6.2, the function of the secondary imagination is precisely the apprehension of an idea or ultimate aim through a distinct mode of inference.

Kant argues that the only ends we can understand are those exhibited in mechanical artifacts such as a watch. Knowledge of an end or ultimate aim allows us to understand the parts of such artifacts as existing “for the sake of the others and on account of the whole” (Judgment 245). Knowledge of the ultimate aim is, in these cases, constitutive: our understanding renders these objects completely and thus adequately. In a “natural end” or “self-organizing being,” on the other hand, the parts are additionally thought to produce the whole or idea that stands behind them. They are reciprocally cause and effect of one another. Kant writes that we are not constituted in such a way as to understand the ground of the reality of such objects: “Strictly speaking, the organization of nature is therefore not analogous with any causality that we know” (246). Kant argues that we attribute purposiveness to “self-organizing beings,” but this purposiveness is merely regulative.

§4.2 – Idea (Tautegory) and Concept (Allegory): John Hunter’s Museum of Natural History

Coleridge adopts Kant’s use of ‘concept,’ defining “conception” in his glossary to the Statesman’s Manual as “[‘a conscious presentation’], mediate, and [that ‘refers to an object’] by means of a character or mark common to several things” (LS 113). The relation between Kant’s and Coleridge’s use of ‘idea’ is not as straightforward, in part because Coleridge draws on other writers for his understanding of the term, in part
because Coleridge both builds upon yet departs from Kant’s usage. In a February 1808 Notebook entry, Coleridge suggests that “[t]he powers of conscious intellect increase by the accession of an organon or new word” and notes that he will “try this in that abominable word, Idea” (CN 4:3268). Coleridge continues the entry by noting that he has been “struggling to get rid of it, & to find some each word for each exact meaning—but no!—look into Bacon, Hooker, Milton, and the best Writers before Locke--& then report.” (CN 4:3268). Evidence of this attempt is found throughout Coleridge’s writings. In his “Essays on Method,” for instance, Coleridge notably draws on Bacon’s notion of “Ideas of the divine” as “the true signatures and marks set upon the works of creation as they are found in nature” (Aph. XXIII), while Coleridge’s Marginalia to the Works of Richard Hooker (CM 2:1131-67) contain an especially rich discussion of Coleridge’s understanding of ‘idea’ and ‘law’ as correlative terms.

Coleridge’s immediate focus in the glossary, however, appears to be Kant. The philosopher’s taxonomy of the genus ‘representation’ presents an ‘idea’ as a subspecies or type of ‘concept,’ one whose object can never be met with in experience. Coleridge adopts the Kantian notion that “there neither is nor can be an adequate correspondent [to an idea] in the world of sense” (LS 114). Coleridge writes that an idea is not a type or subspecies of conception -- it is “neither individual (i.e. a sensible Intuition) nor general (i.e. a conception)” – but is “an educt of the Imagination actuated by the pure Reason” (LS 113).

Coleridge’s short description of ‘idea’ and ‘conception’ in the opening chapter of On the Constitution of Church and State provides a more expansive starting point for analysis of the sense in which he distinguishes the two terms:
By an *idea*, I mean, (in this instance) that conception of a thing, which is not abstracted from any particular state, form, or mode, in which the thing may happen to exist at this or at that time: nor yet generalized from any number or succession of such forms or modes: but which is given by the knowledge of its ultimate aim….The latter, i.e. a conception, consists in a conscious act of the understanding, bringing any given object or impression into the same class with any number of other objects, or impressions, by means of some character or characters common to them all. *Concipimus, id est, capimus hoc cum illo,--we take hold of both at once, we comprehend a thing, when we have learnt to comprise it in a known class. (CC&S 12-13)*

This passage suggests a salient difference between ‘idea’ and ‘conception’ that also serves to bring the terms into direct relation with one another. Given by “knowledge of its ultimate aim,” an idea is always coordinated to a specific function, while a conception, in bringing together a collection of shared characters or marks, is always coordinated to a particular formal means of achieving a function. A conception may thus be thought of as the limiting case of an idea, consisting of the holding fast of a given idea.

This distinction implies that ‘idea’ and ‘conception’ may be differentiated on the basis of relational structure. A conception groups different objects together as members of the same class “by means of some character or characters common to them all.” The relational structure of a conception is thus allegorical: it is an expression of resemblance or similarity between different objects. These common characters are not chosen at random but are selected in light of an idea or ultimate aim. A conception identifies only one possible formal means of realizing an idea, and so does not, by itself, yield knowledge of that idea. As Coleridge writes: “the knowledge of the common characters constitutes a general Conception, which may prove the way of arriving at the Idea, but is not it – and that the words so defining an Idea form an inadequate if not a false definition” (*CN* 4:4940). Because one and the same idea may be expressed through a variety of conceptual realizations, it follows that “no Idea can be rendered by a
conception. An Idea is essentially inconceivable” (CM 2:1145). The relational structure of an idea must therefore be *tautegorical*. These differences in the relational structures of idea and conception may be illustrated by an example based on one of Coleridge’s favorite exemplifications of an idea, the connection underlying the arrangement of “anatomical preparations” or dissected body parts in John Hunter’s Museum of Natural History and Anatomy.

While Hunter’s museum contained the usual assortment of whole specimens, skeletons, and fossils, the bulk of the collection consisted of wet and dry preparations of both normal and morbid anatomy. These preparations were prominently displayed on shelves that covered the walls of the museum. The historian Simon Chaplin describes their arrangement:

Those [preparations] illustrating normal anatomy – which were arranged in the museum proper – were split into two main classes, consisting of parts ‘illuminative of the functions which minister to the necessity of the individual’ and those which ‘provide for the continuance of the species’ …. Within these broader classes preparations were grouped according to specific functions – organs of motion, digestion, and sense, for example – and within each of these sub-series were further sorted in ascending order according to the complexity of the structures themselves. (143)

The basic image to keep in mind is that of a row of dissected organs displayed in glass jars, each organ either suspended in alcohol or dried.

Coleridge holds that the arrangements of preparations in the museum evince an idea of life in a more perspicuous manner than Hunter’s own writings (F 473-474; SW&F 1:485-486). However, Coleridge never explains in any detail how Hunter’s idea of a living principle may be read from the museum displays. He merely remarks in the “Essays on Method” that Hunter’s vital principle is “independent of the organization” found within any one organ or sequence of organs, yet is visible “in each organ working
Coleridge identifies the law or idea of life as “its tendency to progressive individuation” in “Hints Toward the Formation of a More Comprehensive Theory of Life” (SW&F 1:533) and in his correspondence identifies this tendency as “the final cause of nature, or her object” (CL 4:769). My aim in drawing on Hunter’s museum as an example is not to reconstruct the precise manner in which Coleridge believes this idea of life may be read through its displays. Instead, I use an example based on Hunter’s museum that employs what Coleridge calls “the idea of respiration” (CC&S 21) in order to illustrate the relational differences between an idea and a conception. While Coleridge never presents one extended analysis of this idea of respiration, a full account can be built from scattered remarks made in “Theory of Life,” “Essays on Method,” and On the Constitution of Church and State.

Imagine a sequence in Hunter’s museum organized around organs of respiration. The idea or ultimate aim of respiration is coordinated to the function of exchanging carbon dioxide gas and oxygen gas. Consider, within this sequence, the placement of a reptilian lung, a mammalian lung, and an avian lung. The gaseous exchange in these three types of lungs occurs on surfaces or membranes contained within an egg-shaped cavity. In a reptile, these membranes (or septa) are thin sheets oriented toward the center of the lung, but are irregularly distributed throughout the cavity. In a mammalian lung these membranes are distributed systematically throughout the cavity by a successive and hierarchical system of two-way branching. The branching more effectively fills the lung with membrane, and so provides more surface area upon which gaseous exchange may occur than is found within the irregular distribution of membrane in a reptilian lung. The branching system thus allows a mammal to extract more oxygen per breath than a reptile.
In both reptilian and mammalian lungs the flow of air is bi-directional: it travels the same pathways during both inhalation and exhalation. This results in a constant mixture of partially exchanged air within the lungs, and so decreases the overall efficiency of oxygen extraction. In an avian lung, by contrast, the flow of air is uni-directional: it moves from one air sac, through the lung, into a second air sac. This provides the membranes within the lung with air of higher oxygen content, and thus improves the efficiency of the function of respiration. Within the avian lung, the membranes are systematically and hierarchically distributed, but they do not, as in the mammalian lung, terminate in cul-de-sac like alveoli; rather, the avian lung consists of capillaries of membrane that allow the air to flow through the lung in one direction only. Sorted in order of increasing efficiency, the sequence would read: reptilian lung, mammalian lung, avian lung.

Thus arranged in sequence, the spectator may trace through the objects what Coleridge elsewhere calls “A PRINCIPLE OF UNITY WITH PROGRESSION” (F 476), to see within the sequence a “progressive transition without breach of continuity” (F 476). Such a path of transit, or way, is, as Coleridge reminds us, the original meaning of the Greek Μεθοδος. An idea -- coordinated to a function and “given by knowledge of its ultimate aim” -- underlies the sequence. The idea is available only through the sequence that it generates, just as the items displayed are individuated by virtue of their place within such sequences. As Coleridge writes, a “creative idea not only appoints to each thing its position, but in that position, and in consequence of that position, gives it its qualities, yea, it gives its very existence, as that particular thing” (F 459). To employ the optical imagery that Coleridge frequently returns to, the objects can only be seen through the
diffused light of an idea that can be used to display and order them. Coleridge’s remarks on the relation between facts and principles from *Table Talk* is pertinent: “You must have a Lantern in your hand to give light; otherwise all the materials in the world are useless, for you can neither find them, and if you could, you could not arrange them” (*TT* 1:192).

The items in this sequence are brought together through their relation to an idea of respiration. The shared features between the items in this sequence – these make up the conception, ‘lung’ -- should not, however, be confused with the idea of respiration. As Coleridge warns in *On the Constitution of Church and State*:

> A naturalist, (in the infancy of physiology, we will suppose, and before the first attempts at comparative anatomy) whose knowledge had been confined exclusively to the human frame, or that of animals similarly organized, and who, by this experience had been led inductively to the idea of respiration, as the copula and mediator of the vascular and the nervous systems,--might, very probably, have regarded the lungs, with their appurtenants, as the only form in which this idea, or ultimate aim, was realizable. (*CC&S* 21)

The conception ‘lung,’ in other words, does not adequately render the idea of respiration, but only represents one form by which that idea may be realized.

The displays in Hunter’s museum share obvious affinities with the notion of a great chain of being.\(^47\) In his first *Critique*, Kant commends the regulative use of this idea as guiding research into nature but, like all ideas, Kant does not believe that it is constitutive of the natural world (A668/B696). The sequences in Hunter’s museum employ a similar notion of continuous gradation, with the difference that this continuity

\(^{47}\) The great chain, as analyzed in Arthur O. Lovejoy’s *The Great Chain of Being*, combines the “unit-ideas” of “continuity,” “plenitude,” and “unilinear gradation” into a taxonomical template that guides and organizes research. While both Lovejoy and Coleridge are interested in the larger continuities of intellectual history, Lovejoy’s notion of a ‘unit-idea’ is quite different from Coleridge’s use of ‘idea.’ For Lovejoy, a ‘unit-idea’ is a fundamental building block of thought, somewhat analogous to an atomic element in that it can be combined with other ‘unit-ideas’ to form larger aggregates or compounds.
applies only on the level of the individual organ and not to the species as a whole.\textsuperscript{48} The order in which species appeared within Hunter’s sequences did not remain constant but varied depending on the organ under consideration. Coleridge likewise wants to preserve the notion of continuity implicit in the great chain of being, but finds the notion of a single chain “contrary to fact” (\textit{F} 470), whether exhibited on the level of the species or on the more specialized level of individual organs. In place of a single chain, Coleridge suggests that the animal and vegetable realms relate as polar opposites, analogous to positive and negative electrical charges.\textsuperscript{49}

In his “Essays on Method,” Coleridge cites Erasmus Darwin as first suggesting the idea of polarity as an organizing taxonomical principle:

He saw, or thought he saw, that the harmony between the vegetable and animal world, was not a harmony of resemblance, but of contrast; and their relation to each other that of corresponding opposites. They seemed to him … as two streams from the same fountain indeed, but flowing the one due west, and the other direct east; and that consequently the resemblance would be as the proximity, greatest in the first and rudimental products of vegetable and animal organization. Whereas, according to the received notion, the highest and most perfect vegetable, and the lowest and rudest animal forms, ought to have seemed the links of the two systems. (\textit{F} 470)

Applied to our example, this insight would yield two different sequences for the idea or function of respiration. Coleridge’s metaphor of two streams flowing in opposite directions from the same fountain figures how an idea serves as a source from which it is possible to trace multiple paths of transit, each path exhibiting a principle of unity with progression.

\textsuperscript{48} For a detailed discussed of Hunter and the great chain of being, see W. D. Ian Rolfe’s “William and John Hunter: Breaking the Great Chain of Being.”

\textsuperscript{49} In relation to his larger idea of life, Coleridge notes that the “progress of Nature is more truly represented by the ladder, than by the suspended chain, and that she expands as by concentric circles” (\textit{SW&F} 1:537). For more on Coleridge’s view of polarity as the form of this process, see “Theory of Life” (\textit{SW&F} 1:533) and “Essays on Method” (\textit{F} 470).
The items within either of these sequences may be grouped and thought together. This is what Coleridge, following Kant, designates a ‘conception.’ To repeat Coleridge’s definition given above, this is “a conscious act of the understanding, bringing any given object or impression into the same class with any number of other objects, or impressions, by means of some character or characters common to them all” (CC&S 13). The shared collection of characters between the organ of respiration in a reptile, mammal, and bird are brought together in the conception ‘lung’; the shared collection of characters of the organ of respiration in the vegetable realm are brought together in the conception ‘stoma.’

The relation between the two sequences is of a different sort. Each sequence reveals a different manner of achieving the same function of respiration. The conceptions ‘lung’ and ‘stoma’ are individually examples of allegorical relations since they designate the shared formal resemblances of the items grouped underneath them. The relation between the conceptions ‘lung’ and ‘stomata’ is tautegorical, because these conceptions express differently the same idea or ultimate aim of respiration. To borrow a phrase from Coleridge’s discussion of the ‘idea’ of the state from a Notebook entry, in each of these sequences the same idea or “ultimate End [is] presented in the form of its means” (CN 4:4940), but is not exhaustively or comprehensively rendered by these means.

There can, of course, be more than two ways of expressing a single function. In On the Constitution of Church and State, Coleridge draws attention to “the spiracula in the insects” and the “gills of the fish” as different forms in which the idea of respiration may be realized (CC&S 21). In terms of Coleridge’s rhetorical taxonomy, these different
means are related tautegorically by means of analogy. As he states in his “Theory of Life”:

Analogy implies a difference in sort, and not merely in degree; and it is the sameness of the end, with the difference of the means, which constitutes analogy. No one would say that the lungs of a man were analogous to the lungs of a monkey, but any one might say that the gills of fish and the spiracula of insects are analogous to lungs. (*SW&F* 1:530-31).

The idea relates these conceptions through a specific function that is “evermore one and the same; entire in each, yet comprehending all; and incapable of being abstracted or generalized from any number of phenomena, because it is itself presupposed in each and all as their common ground and condition” (*F* 467). Related by analogy as different expressions of the same idea, a lung, a gill, a spiracle, and a stoma may be seen by the diffused light of the idea that shines through them all: “analogies are the material, or (to speak chemically) the base, of Symbols” (*AR* 206). Nor do these forms exhaust the possible realizations of the idea. As Coleridge writes, “every idea is living, productive, partaketh of infinity, and (as Bacon has sublimely observed) containeth an endless power of semination” (*LS* 23-4).
§5 – Solving Philosophy’s Highest Problem

Coleridge’s definition of “Idea” from the 1816 Statesman’s Manual identifies the question as to “[w]hether Ideas are regulative only, according to Aristotle and Kant; or likewise CONSTITUTIVE, and one with the power and Life of Nature” as “the highest problem of Philosophy, and not part of its nomenclature” (LS 113-14). The following passage from his 1818 “Essays on Method” provides one statement of his nuanced answer:

In what shall we seek the cause of this contrast between the rapid progress of electricity and the stationary condition of magnetism? As many theories, as many hypotheses, have been advanced in the latter science as in the former. But the theories and fictions of the electricians contained an idea, and all the same idea, which has necessarily led to METHOD; implicit indeed, and only regulative hitherto, but which requires little more than the dismissal of the imagery to become constitutive like the ideas of the geometrician. (F 481).

Coleridge claims a hitherto regulative idea, once it has been brought forth and recognized as such, becomes constitutive in that it is thought of as a source of knowledge, as responsible for the phenomena that suggest it as well as for new situations that conform to it. It also opens a method or path of transit through its promise of future elaboration and testing, and thus becomes a practical tool of exploration and discovery.

The goal of this chapter is to explicate Coleridge’s answer to this highest problem. The first section provides a brief excursion detailing Coleridge’s conception of mathematical ideas. The second section analyzes Coleridge’s claim that the predictive power of ideas provides evidence that they are constitutive. This consideration returns us to the particular objections Coleridge leveled against Schelling’s philosophy in 1818. Finally, Coleridge’s claims for “ideas” are illustrated by means of an example drawn
from the work of Thomas Kuhn on Newton’s second law of motion as an instance of what Kuhn calls a concrete exemplar.

§5.1 -- Idea and Theorem: A Brief Note on Coleridge’s Conception of Mathematics

Coleridge claims that an ‘idea,’ once it has been drawn out of the theories and hypotheses that contain it, becomes constitutive for the natural philosopher in a similar fashion to how the ideas of geometry are constitutive for the mathematician. At least some understanding of Coleridge’s conception of mathematics is therefore required to understand his answer to this highest problem of philosophy. Coleridge’s fullest characterization of mathematics is that it is an example of a science “the truths of which, as truths absolute, not merely have an independent origin in the mind, but continue to exist in and for the mind alone” (F 459). Coleridge’s reflections on mathematics are keyed to the implied notion that “[w]ith the mathematician, the definition makes the object, and pre-establishes the terms which, and which alone, can occur in the after-reasoning” (F 476). The elaboration of this statement provides the sense in which Coleridge compares the ideas of the natural philosopher to the ideas of the geometer.

The chief consequence of Coleridge’s conception of mathematics is that study or observation of the natural world has no bearing on the necessity of any mathematical claim. This applies, first of all, to geometrical objects themselves. A geometer, for example, may define a circle as a two-dimensional figure whose circumference consists of points equidistant from its center. The fact that no apparently circular object – whether the pupil of the eye, the base of a pie plate, or the rings of Saturn – perfectly satisfies the definition is of no concern to the geometer. As Coleridge writes: “If a circle be found not
to have the radii from the center to the circumference perfectly equal, which in fact it would be absurd to expect of any material circle, it follows only that it was not a circle: and the tranquil geometrician would content himself with smiling at the *Quid Pro Quo* of the simple objector” (*F* 476). Indeed, one of the reasons that Coleridge initially includes objects of the geometer such as the circle as ideas is precisely because one criterion for the presence of an “idea” is that no suitable intuition may be presented that corresponds to it.

Not only do the geometrical figures themselves possess a freedom from the natural world, but, more importantly, the truth or falsity of a geometrical demonstration is independent of whether the demonstration could ever be realized in the natural world. For example, consider the Pythagorean theorem: for all right triangles, the square of the length of the hypotenuse is equal to the sum of the square of the lengths of the other two sides of the triangle. The theorem possesses necessity – it is shown to hold for all right triangles. Yet that necessity is neither increased nor supported through empirical testing by measuring the lengths of the sides of various right triangles.

This led Coleridge to note that it is technically incorrect to refer to “ideas” within purely mathematical discourse. Coleridge corrected his references to the ideas of geometry in multiple copies of the *Friend* by replacing “idea” with “theorem.” As he explains his correction: “Here I have fallen into an error …. Instead of geometrical *Ideas* I ought to have said, *Theorems*, … the intelligible Products of Contemplation, objects in the mind, of and for the mind exclusively” (*F* 459). The difference between “idea” and “theorem” is that the former term is always correlative to an objective law while the later term describes a product that exists exclusively for the mind.
§5.2 -- Idea, Foresight, Method

In addition to distinguishing ‘idea’ from ‘conception’ on the basis of relational structure, Coleridge also holds that the apprehension of an ‘idea’ provides secure ground for foresight, while the knowledge provided by a conception is merely retrospective. As we have seen, this claim concerning ideas underlies The Statesman’s Manual: the Bible remains the best guide to “political skill and foresight” precisely because it is an especially rich locus of ideas. Coleridge repeats the claim that ideas offer predictive power across a variety of thematic registers. It is found, for instance, in a Notebook entry that contrasts a conception of the political state with an idea of the political state:

As little does a conception formed in this manner by abstraction and generalization supply, of necessity, any principle of foresight, or historic anticipation, or suppose any general Schema or scientific Model in the conceiving Mind for the construction of a State, where it does not exist (in a new Colony, for instance) or as far as such a thing is possible where it exists no longer (CN 4:4940).

The predictive power of ideas is even invoked in order to explain the relations between characters in Hamlet:

A Maxim is a conclusion upon observation of matters of fact, and is merely retrospective: an Idea, or, if you like, a Principle, carries knowledge within itself, and is prospective. Polonius is a man of maxims. Whilst he is descanting on matters of past experience, as in that excellent speech to Laertes before he sets out on his travels, he is admirable; but when he comes to advise or project, he is a mere dotard. You see Hamlet, as the man of ideas, despises him. (TT 2:61).

In this section I show that Coleridge’s claim that ideas yield predictive power is central to his answer to philosophy’s highest problem. The ability of an idea to offer grounds for predictions is, Coleridge argues, evidence that the idea is constitutive of the phenomena that it renders intelligible.
This consideration returns us to the critique of Schelling that Coleridge articulates in a September 30, 1818 letter to J. H. Green. As was shown in chapter §2.3, Coleridge felt that Schelling was committed to the contradictory view whereby principles in Natur-philosophy both possessed their own self-evident necessity and additionally needed to be brought to experimental proof.

Coleridge’s correction in his letter to Green involved the means by which the validity of a principle is established: “an Anticipation … acquires necessity by becoming an Idea in the moment of its coincidence with an objective Law: and vice versa, a constant Phenomenon first becomes a Law in the moment of its coincidence with an Idea” (CL 4:876). To stress the importance he attributed to this statement, Coleridge continues his letter by stating: “I need not point out to you, my dear Green! the practical Importance of this Correction” (CL 4:876). Coleridge’s correction presents two sets of correlative terms: anticipation/constant phenomenon and idea/objective law. An anticipation of nature is the subjective correlate of the observation of a constant phenomenon. In the same way, a law of nature is the objective correlate of an idea. If the most important aspect of the true import of the term ‘idea’ is its contradistinction to ‘conception,’ the second most important aspect is that an idea and a law are always correlative terms. Coleridge reiterates the correlative nature of the two terms throughout the “Essays on Method” (F 459, 467, 492-3) and in On the Constitution of Church and State (13).

Coleridge’s statement of his own position is both clarified and exemplified in an October 1818 Notebook entry that begins by explicitly recalling the objections to Schelling raised in his correspondence to Green. Coleridge restates his particular
objection to the contradictory status conferred upon principles in Naturphilosophy by
diagnosing it as “the confusion of Ideas, with Theorems on the one side, and <with>
Anticipations on the other, so as to make one and the same at once self-evident and yet
dependent on empirical Proof” (CN 3:4449). In Coleridge’s usage, theorems name
“intelligible Products of Contemplation; objects in, from, and for the mind exclusively”
(F 459). The most prominent example of theorems are provided by mathematical
reasoning. As analyzed above, the validity and necessity of a theorem is not, indeed
cannot, be dependent on observations of the natural world. An anticipation of nature, on
the other hand, requires experimental proof for its establishment. The confusion, in
Coleridge’s mind, is deliberately exploited by the Naturphilosophers. As he presents the
case in his letter to Green:

the necessity of resorting to Experience is a mere assertion in contradiction to the
assertion preceding—and so annulled by it—or now the one is to be remembered
(—viz—when Facts happen to be in a friendly humor, & come forward at all—)
and then the other is to have it’s day of monocracy—or rather 3 days in four, as
Steffens, Oken, Baader, K. Schelling, & the great Master himself have
exemplified to the grief of all sound & sober Philosophy! (CL 4:876)

The letter to Green offers a correction through Coleridge’s statement than an anticipation
only acquires necessity by becoming an idea, but it does not reference any instances that
exemplify this movement. This correction, as we will see, amounts to a restatement of his
solution to philosophy’s highest problem.

The October 1818 Notebook entry helpfully provides an instance of an
anticipation of nature: the belief that the apparent motions of the moon will continue to
exhibit the patterns the moon has been observed to follow. As Coleridge writes: “The
Moon has hitherto observed such and such motions without any known exception—my
nature compels me to anticipate the recurrence” (CN 3:4449). Such and such motions
presumably refers to the fact that the moon appears to move approximately 13 degrees to the east during the course of an entire day, taking a little over 27 days to return to its original position against the background of the fixed stars. The moon also proceeds through a cycle of phases (a new moon turns, in order, waning crescent, waning gibbous, full, waxing gibbous, waxing crescent, and finally new again) every 29 or 30 days.

Coleridge equates the knowledge offered by an anticipation of nature with the knowledge offered by a conception. A conception marks a number of similarities between different objects and so provides the name for a class of objects. The anticipation of nature sums up a history of passive observations of a phenomenon and provides a name for the phenomenon by noting the patterns by which it may be identified. The observation of the different phases of the moon, for instance, may be summed under the conception of a lunar cycle. In an 1823 Notebook entry that discusses the idea of magnetism, Coleridge observes that a conception is often mistaken for a cause of the phenomenon under consideration:

The general Conception will contain all the phenomena that had been noticed up to the moment of its formation, and these will determine the name of the property, to which the phenomena are too often attributed as to the cause of the same: whereas in fact it is only a repetition of the effects involving the universal assumption of a Cause. (CN 4:4940).

In the terms of the astronomy example, this mistake would be made if one attempted to explain the waxing gibbous phase of the moon as the result of the lunar cycle. That is merely the name of a recurring phenomenon that may be anticipated but is not yet understood.

Coleridge contrasts the limited knowledge provided by the anticipation of the recurrence of a constant phenomenon such as the 27 day period of the moon’s revolution
with the knowledge of the same phenomenon gained through an understanding of the laws of planetary motion as expressed in the ideas of Kepler and Newton. What does the latter knowledge consist in? Coleridge answers in the 1818 *Notebook* entry by asking: “Is not, first *intelligibility*—in order to understand the appearances—and second, the power of Prophecy independent of past experience?” (*CN* 3:4449). The anticipation, in other words, acquires necessity when it is understood as an idea both because it renders the recurrence of a constant phenomenon intelligible and because it provides the power to predict the occurrence of the phenomenon in new, or unobserved, situations.

The idea is not deduced from observations of the apparent motions of the moon through a process of comparison and abstraction. That process only could only lead to a conception that names the phenomenon under consideration. Coleridge notes in the “Essays on Method” that “[an idea] is *attributed*, never *derived*. The utmost we ever venture to say is, that the falling of an apple *suggested* the law of gravitation to Sir I. Newton” (*F* 467). It is from Newton’s idea -- the correlate of the law of gravitation -- that the apparent motions may be deduced and so understood or rendered intelligible. The idea, unlike the conception, also explains the variations or anomalies in the observations, as, for instance, the fact that the time between one new moon and the next, takes, on average, 29.5 days but varies for reasons that no collection of observations alone could ever make sense of.

Whereas the conception merely summarizes a history of observations, the idea may be used to issue predictions in cases where observations have not yet been made.

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50 Coleridge makes this point in a 1823 *Notebook* entry in a discussion of the difference between an idea of magnetism and a conception of magnetism: “No way suggested of controlling or reproducing the phaenomena need be contained in the Conception, immediately or as a necessary Consequence—No Light necessarily given for the explanation of the variations and apparent anomalies, or for the anticipation of such under given or preconceived Circumstances” (*CN* 4:4940).
Coleridge makes the point in the 1818 *Notebook* entry through a thought-experiment. He considers a case where the ideas of Kepler and Newton have been apprehended, yet no astronomical observations whatsoever have been made. Coleridge writes that “[i]f Adam were supposed master of all the Truths demonstrated by Kepler and Newton, he would as safely and as confidently have prophesied the eclipses of the Sun and Moon before yet an eclipse had been experienced by him” (*CN* 3:4449). Just as the idea allows the derivation of observations of the apparent motion of the moon, so too does it possess a predictive power through its ability to derive observations that are yet to occur.

The idea, when apprehended, thus becomes a practical tool of experimentation and discovery through its ability to offer predictions in situations that have not yet been observed. It is in this sense that, as Coleridge states in the “Essays on Method,” “an idea is an experiment proposed; an experiment is an idea realized” (*F* 489). To realize an idea through an experiment is to possess knowledge of the correlative law. As Coleridge puts it in the “Essays on Method”: “with the knowledge of Law alone dwell Power and Prophecy, decisive Experiment, and, lastly, a scientific method” (*F* 470).

Coleridge’s example is significantly sharpened in an 1825-26 *Notebook* entry on ideas. Rather than a discussion of the apparent motion of the moon and a thought-experiment involving the biblical Adam as an eclipse-predicting prophet, Coleridge contrasts Kepler’s ideas of planetary motion with Ptolemaic models of planetary motion: the *Ideas* of Kepler, the Correlates of the Law of the Planetary Orbits contrasted with the Conceptions of Ptolemy who began with the phenomena, the apparent motions, as *data*—& then sought to take them as that he might take them all together—i.e. *concipere, capere haec cum illis*—and this *Conception*, or Synopsis of a plurality of phenomena so schematized as to show the compatibility of their co-existence, is *THEORY*—a product of the Understanding in the absence or eclipse of *IDEAS*, or Contemplations of the Law, and hence necessarily conditioned by the Appearances, and changing with every new or newly-
discovered Phenomenon, which Theory always follows never leads—while the Law being constitutive of the phenomena and in order of Thought necessarily antecedent, the Idea as the Correlative and mental Counterpart of the Law, is necessarily prophetic and constructive. (CN 4:5294)

Not only does Coleridge display a greater understanding of the history of the science he invokes in this passage, but the passage itself foregrounds the relevance of such inquiry to Coleridge’s solution to philosophy’s highest problem. As is often the case, however, Coleridge’s example presumes the familiarity of the reader with knowledge of the subject matter under discussion and so omits much detail. As with the earlier example of the idea of respiration as manifested in various conceptions such as ‘lung’ and ‘gill,’ the absent detail may be readily supplied. In this case it requires a brief excursion into the history of astronomy.  

The prevailing astronomical system of Plato and Aristotle’s time – attributed to Plato’s student Eudoxus – explains the apparent motion of the planets by means of a series of concentric spheres centered on the earth. The heavens were thought to be made of a substance – “aether” – fundamentally different from anything found in the terrestrial realm. Aether is the only substance to possess the property of uniform, circular motion.

This model was unable to account for the so-called two anomalies of planetary motion. The first anomaly is that the planets do not move uniformly across the sky, but traverse different lengths of the zodiac at different rates. The second anomaly is that the planets exhibit retrograde motion. That is to say, at certain points a planet will stop its forward motion across the sky and travel backwards for a short distance, before stopping again and continuing its forward movement.

51 The review offered below is basic enough as to appear in any introductory astronomy textbook. For a more scholarly discussion, see Kuhn’s The Copernican Revolution.
In attempting to explain these so-called anomalies, mathematical astronomers devised a series of models and devices meant to “save the appearances” of the planets as they move across the sky. A collection of these models is set forth in Ptolemy’s *Almagest* (~150 AD).

The first anomaly may be accounted for by an “eccentric” as a point near the earth, about which the planet travels with uniform, circular motion. In order to account for the second anomaly, astronomers introduced an “epicycle-deferent” model where a planet moves uniformly around a smaller circle, or epicycle, while the center of the epicycle moves uniformly around a larger circle, or deferent. While the device of the epicycle-deferent retains uniform, circular motion, the epicycle does not even surround the earth, and so violates Eudoxus’ system of homocentric spheres in a more severe manner than the eccentric.

The model that best “saved the appearances” was the “equant,” or point of equal motion, located the same distance from the center of the deferent as the earth, and about which an epicycle moved with constant angular velocity. The use of an equant not only further complicates the model meant to save the appearances, but also violates both the letter and spirit of uniform, circular motion, a fact that especially distressed Copernicus, who introduced a model of his own to preserve uniform circular motion and that was meant only to replicate the quantitative accuracy of the equant model without invoking a notion of constant angular velocity.\(^{52}\)

As the tensions in these various models may suggest, astronomy – at least from the time of Aristotle through the time of Copernicus – was not considered a subdivision

\(^{52}\) There is nothing in Copernicus’ system that requires the use of the sun rather than the earth as a central point; one can translate Copernicus’ model from a sun-based to an earth-based system via the introduction of one epicycle per planet.
of physics. The discipline was split between two communities of inquiry, with different methods and different goals. On the one hand, there were the mathematical astronomers who devised models meant to “save the appearances.” These models formed the basis of astronomical tables of increasing accuracy, used primarily for navigational and astrological purposes. The question of what was really, physically going on in the heavens was either not taken up, or explicitly said to be unknowable. (Remember, in this regard, that the center of a planet’s orbit in an eccentric is merely a bit of empty space located near the earth, and that this fact did not trouble the mathematical astronomers in their capacity as mathematical astronomers). On the other hand, there were those inquirers who focused on developing or extending Aristotelian cosmology. Ptolemy himself provides an example of this split; while his *Almagest* is the great work of antiquity in mathematical astronomy, Ptolemy reserved his physical speculations regarding celestial spheres for his *Planetary Hypotheses*.53

Coleridge states that these various models in Ptolemy’s *Almagest* are necessarily conditioned by the appearances. New or refined observations required that the mathematical astronomer either adjust the old model (by, for instance, changing the period of revolution of an epicycle or deferent) or introduce a new model (as in the introduction of the epicycle-deferent itself). These conceptions do not lead to what Coleridge’s characterizes as “decisive experiment.” As the catchphrase goes, they sought only to “save the appearances.” In the “Essays on Method,” Coleridge flags an increasingly baggy nomenclature as an indication of inquiry performed without the support of a guiding idea. Coleridge notes that “the terms system, method, science, are

53 More information on this split is provided by Kuhn and James Voelkel’s *The Composition of Kepler’s Astronomia Nova* (13-25).
mere improprieties of courtesy, when applied to a mass enlarging by endless appositions, but without a nerve that oscillates, or a pulse that throbs, in sign of growth or inward sympathy” (F 469). Even though Coleridge wrote those words as a critique of the current state of botanical classification, they also apply to a consideration of the state of mathematical astronomy before Kepler.

Kepler’s decisive intervention has to do, first of all, with the introduction of a physical astronomy. Kepler argued that the only way for mathematical astronomy to advance beyond the stalemate of computationally equivalent systems was via the introduction of physical concerns. This led Kepler to replace Copernicus’ “mean sun” with the real, physical sun at the center of the universe, and to open questions relating to the possibility of a “motive force” emanating from the sun that might control the motions of the planets without requiring celestial spheres.

The data Kepler had access to when he published his first book was not accurate enough to either suggest or confirm mathematically precise rules, though Kepler noted that the period of revolution for a planet increased at a seemingly exponential rate the farther one moved from the sun. This relation, of course, is not visible if one adopts a Ptolemaic viewpoint, and cannot be explained if one adopts Copernicus’ model. Such work would seem to qualify as a preeminent instance of what Coleridge calls the “incipient germination” of an idea in the “Essays on Method” (F 471).

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54 This point is most forcefully argued in Bruce Stephenson’s *Kepler’s Physical Astronomy*. Voelkel’s *The Composition of Kepler’s Astronomia Nova* provides the historical work necessary to back Stephenson’s assertion.
It was only after Kepler received access to the astronomical observations of Tycho Brahe that he was able to educe his three laws of planetary motion.\textsuperscript{55} The first law breaks with the principle of uniform, circular motion, stating that the orbits of the planets are elliptical, with the sun at one focus of the ellipse. Kepler’s second law states that an imaginary line joining the planet to the sun sweeps out equal areas in equal times as the planets moves through its orbit. The third law states the relation between a planet’s orbit and its distance from the sun with unparalleled precision: the ratio of the squares of the revolutionary periods for two planets is equal to the ratio of the cubes of their semi-major axes.

Coleridge’s notebook entry draws a severe contrast between Kepler’s laws of planetary motion and Ptolemy’s various models. The period of revolution of a planet, before Kepler, was merely an anticipation based on recurring appearances that needed to be saved through the construction and refinement of a model; after Kepler’s third law, the appearances are transformed into a law through what Coleridge describes as the most “glorious achievement of scientific genius upon record” (\textit{TT} 2:125-26). Kepler's achievement shows that the work of the imagination need not be perceptual; Kepler's contribution stemmed not from his power of sight, but from his power of insight. Coleridge, while examining the history of the study of electricity in the “Essays on Method,” notes that an idea “gives the \textit{method}, both of arranging the phenomena and of substantiating appearances into facts of science” (\textit{F} 478). Kepler’s third law provides an exemplary instance.

\textsuperscript{55} These laws were never presented as such or even together by Kepler. The first two are described in his \textit{New Astronomy}, while the third law is presented in \textit{The Harmony of the World}.
In the “Essays on Method” Coleridge uses Kepler’s example without directly invoking his name to describe the effect of the designation and conveyance of an idea: “For the relation common to all being known, the appropriate orbit of each becomes discoverable, together with its peculiar relation to its concentrics in the common sphere of subordination. Thus the centrality of the sun having been established, and the law of the distances of the planets from the sun having been determined, we possess the means of calculating the distance of each from the other” (F 461). Kepler’s ideas – the correlates of the laws of planetary motion – are capable of guiding observation. These ideas not only render intelligible the apparent motions of already observed planets; additionally, they provide the means to both understand and predict apparent motions in new situations. Kepler’s ideas may be employed as practical tools to help determine whether a new object, such as the one observed by William Hershel in 1781 was a planet (Uranus) or merely another comet. Additionally, the prediction and observation of a transit of Venus in 1639 by Jeremiah Horrocks was made possible precisely through an understanding of Kepler’s work. Yet like Newton’s idea of gravitation -- which itself renders Kepler’s laws of planetary motion intelligible – Kepler’s ideas were attributed, not derived. Kepler’s work is a further example that, as Coleridge puts it in the 1818 Notebook entry, “the greatest, and for the human race as progressive Beings the most useful Discoveries have been derived from applying truths purely intellectual to the objects of sense in order to render them intelligible” (CN 4:4449).

An anticipation of nature acquires necessity when it becomes an idea. Confirmation of the “prophetic and constructive” power of the idea provides evidence that it is constitutive of the phenomena that it renders intelligible. It is necessary to
remember that no idea may be fully rendered by a conception, that an idea is essentially inconceivable. A Coleridgean idea can therefore never be constitutive of an object in the same manner as a Kantian concept. Rather, Coleridge states that an idea becomes constitutive in a similar manner to the ideas of the geometrician. The relevant similarity of mathematical ideas to Coleridgean ideas within inquiry consists in the fact that both precede the demonstrations that employ them. As Coleridge writes of ‘idea’ in his *Marginalia* to the *Works* of Richard Hooker: “An Idea is a POWER (δύναμις νοερα) that constitutes its own Reality—and is, in order of Thought, necessarily antecedent to the Things, in which it is, more or less adequately, realized—while a Conception is as necessarily posterior” (*CM* 2:1134). At stake is the reality of a relation that may be used to understand, order, arrange, and predict various phenomena as its different degrees and modifications.

§5.3 -- A Concrete Exemplification: Learning Newton’s Second Law of Motion

Coleridge’s answer to the “highest problem of Philosophy” thus rests upon the difference between the knowledge gained from the apprehension of an idea and the discursive knowledge provided through conceptions. This difference is manifested primarily through the predictive power offered by the apprehension of an idea. As a means of illustrating these claims in greater detail, let us consider an example drawn from Thomas Kuhn’s work in the history and philosophy of science on the paradigm as concrete exemplar.

To invoke talk of Kuhnian paradigms, however, is almost to invite the danger of courting misunderstanding, and so requires a few words by way of preface. Kuhn laments
that the term was primarily responsible for the way that *The Structure of Scientific Revolutions* “can be too nearly all things to all people” (*Tension* 293). As Kuhn himself admits, he was at least partly to blame for this; one early commentator infamously noted that Kuhn uses the term “in not less than twenty-one different senses” (Masterman 61).

Neither that commentator nor Kuhn held the situation to be as dire as these quotations might suggest. While Kuhn abandoned his term as having grown beyond his control, he refined the concept that led to its introduction by distinguishing between “disciplinary matrix” and “concrete exemplar.”

The disciplinary matrix is the broader term and encompasses those elements shared by the members of a scientific community. Its components include value judgments regarding the relative importance of factors like the desired accuracy, consistency, scope, simplicity, and fruitfulness of a scientific theory.

The disciplinary matrix also includes the models that provide a scientific community with shared analogies and metaphors, symbolic generalizations such as $f = ma$ or “action equals reaction” as those points at which the powerful tools of mathematical and logical manipulation attach to scientific inquiry, and concrete exemplars as the shared examples that provide empirical content to the symbolic generalizations and theories employed by a given scientific community. Concrete exemplars, whose analogy with grammatical paradigms first prompted Kuhn to employ his ill-fated term, only make up one

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56 Kuhn elaborates these terms most clearly in his 1969 “postscript” to *The Structure of Scientific Revolutions* (Structure 194-210). Kuhn also employs this distinction in “Reflections on My Critics” (*Criticism* 231-78) and “Second Thoughts on Paradigms” (*Tension* 293-319).

57 Kuhn’s fullest treatment of this aspect of the disciplinary matrix is found in “Objectivity, Value Judgment, and Theory Choice” (*Tension* 320-39).

58 As Kuhn points out, their function within the disciplinary matrix is the same whether they are primarily used for heuristic purposes, as the belief that the molecules of a gas behave like small, elastic billiard balls in random motion, or whether they are taken literally and serve as ontology, as the belief that heat is the kinetic energy of the constituent parts of bodies (*Structure* 184).
component of the disciplinary matrix. Keeping these distinctions in mind goes a long way toward avoiding the confusions that often accompany discussion of Kuhn’s term.

Despite sometimes strikingly parallel treatments of a range of issues in the history and philosophy of science, there is no evidence that Kuhn had read Coleridge’s methodological writings. My intent is not to compare the thinkers in a comprehensive or systematic way. It is merely to borrow an example to more properly illustrate Coleridge’s claim that an ‘idea’ confers foresight and so differs from the discursive knowledge offered by a conception.

Kuhn’s example pertains to Newton’s second law of motion. The law states that force is proportional to mass times acceleration and is often rendered by the formula, \( f = ma \). Kuhn draws attention to the difference between a discursive understanding of the law that is “embedded in rules, laws, or criteria of identification” and knowledge of the law that is “embedded in shared exemplars” (Structure 192). In Coleridge’s terminology, this is a distinction between the knowledge provided by a conception and the kind of knowledge provided through the apprehension of an idea. Because, for Coleridge, “an idea is an experiment proposed, an experiment is an idea realized” (F 489), ideas within scientific inquiry are often communicated through what Coleridge calls “a central experiment or observation” (F 481).

In an attempt to answer what the knowledge of a scientific law actually consists in, Kuhn focuses attention on what a student learns in solving the problems found at the end of chapters of science textbooks. In so doing Kuhn identifies a common experience of anyone who has taken an introductory science course. In the case of Newton’s second law, a beginning physics student may be able to define ‘force,’ ‘mass,’ and ‘acceleration’
but prove incapable of solving many of the textbook problems designed to test an
understanding of the law. As the student proceeds, the problems slowly begin to look
similar to one another until they all admit of the same, easy solution.

Kuhn observes that the student does not learn merely how to identify the
appropriate forces, masses, and accelerations for the situations depicted in the problems.
As Kuhn writes:

[W]hat students have to learn is even more complex than that. It is not quite the
case that logical and mathematical manipulation are applied directly to \( f = ma \).
That expression proves on examination to be a law-sketch or a law-schema. As
the student or practicing scientist moves from one problem situation to the next,
the symbolic generalization to which such manipulations apply changes. For the
case of free fall, \( f = ma \) becomes \( mg = md^2s/dt^2 \); for the simple pendulum it is
transformed to \( mgsin\theta = -ml^2\theta/dr^2 \); for a pair of interacting harmonic oscillators
it becomes two equations, the first of which may be written \( m_1d^2s_1/dt^2 + k_1s_1 = k_2(s_2 - s_1 + d) \); and for more complex situations, such as the gyroscope, it takes
still other forms, the family resemblance of which to \( f = ma \) is still harder to
discover. (Structure 188-89)

Kuhn’s observation that the appropriate symbolic generalizations of the law change
according to the problem situation may be related to Coleridge’s observation that an idea
is correlated to a function that may be expressed or realized through a variety of
conceptual means. The various symbolic generalizations are related tautegorically to the
law-sketch or idea. The same law is expressed with a difference in each of these
generalizations, and no one generalization is adequate to fully render the law.

In completing the textbook problems the student or practicing physicist learns to
see the various problem situations as different expressions of Newton’s second law of
motion, as what Kuhn calls “subjects for the application of the same scientific law”
(Structure 190). In Coleridge’s terminology, the student learns to view the problem
situations symbolically, seeing the translucence of the law in the various problem
situations and thus viewing them in terms of what Kuhn calls a “Newtonian gestalt” 
(Road 170).

Kuhn stresses that this kind of seeing provides “consequential knowledge of 
nature” (Structure 190) that extends beyond the symbolic generalizations associated with 
already encountered problem situations. As Kuhn observes: “Once students have 
acquired the ability to see a number of problem situations in that way, they can write 
down ad lib the symbolic forms demanded by other such situations as they arise” 
(Criticism 273). Apprehending the idea that shines through these generalizations opens 
the possibility of future research. Coleridge similarly writes that the ability to work with 
an idea consists in the ability “fully to unfold and organize it into distinct, clear, and 
communicable conceptions” (SW&F 1:486). That scientists often do so successfully, 
implies, for Coleridge, that the idea is constitutive.

Kuhn, like Coleridge, insists that the knowledge provided by the law is confined 
neither to a list of known symbolic generalizations nor to a set of discursive procedures 
that identify how to select the appropriate force, mass, and acceleration within any of the 
already encountered problem situations. As Kuhn notes, “no conjunction of particular 
symbolic forms would exhaust what the members of a scientific community can properly 
be said to know about how to apply symbolic generalizations;” the members of the 
scientific community can, “in advance of directly relevant empirical evidence, identify 
the special formalism appropriate to a particular problem, especially to a new problem” 
(Tension 301). In such cases, the scientist is in an analogous position to Coleridge’s 
hypothetical Adam as astronomer. It is not that these judgments are inevitably on target, 
such that, once the law is apprehended, one could do away with the need for future
experimental tests; yet, Kuhn notes that “with remarkable frequency … the community’s judgments prove to be correct” (*Tension* 301).

While it is possible to supply “correspondence rules” between a symbolic generalization and its matching problem-situation, Kuhn argues that it is a mistake to assume that the “cognitive content” (*Structure* 188) of science is localized in such rules. He notes that such criteria of identification are generally not found in science textbooks, and not only do scientists rarely supply them, but often “regularly deny their relevance and thereafter sometimes grow uncommonly inarticulate” (*Tension* 305). Coleridge’s observation that, in order of thought, the idea is necessarily antecedent to the things in which it is more-or-less adequately realized, while the conception is as necessarily posterior, means that one perceives sameness before difference, and that this sameness is never reducible to a list of particular features that resemble one another. As Kuhn writes of the paradigm as concrete exemplar:

> When I speak of knowledge embedded in shared examples, I am not referring to a mode of knowing that is less systematic or less analyzable than knowledge embedded in rules, laws, or criteria of identification. Instead I have in mind a manner of knowing which is misconstrued if reconstructed in terms of rules that are first abstracted from exemplars and thereafter function in their stead. Or, to put the same point differently, when I speak of acquiring from exemplars the ability to recognize a given situation as like some and unlike others that one has seen before … I am claiming that that the explication will not, by its nature, answer the question, ‘Similar with respect to what?’ That question is a request for a rule, in this case for the criteria by which particular situations are grouped into similarity sets, and I am arguing that the temptation to seek criteria (or at least a full set) should be resisted in this case. 59 (*Structure* 192)

59 Or, as Kuhn notes in “Second Thoughts on Paradigms”: “It is a truism that anything is similar to, and also different from, anything else. It depends, we usually say, on the criteria. To the man who speaks of similarity or of analogy, we therefore at once pose the question: similar with respect to what? In this case, however, that is just the question that must not be asked, for an answer would at once provide us with correspondence rules. Acquiring exemplars would teach the student nothing that such rules, in the form of criteria of resemblance, could not equally well have supplied. Doing problems would then be mere practice in the application of rules, and there would be no need for talk of similarity” (*Tension* 307).
Kuhn considers the concrete exemplar as “philosophically … the deeper of the two”

(*Structure* 175) senses of paradigm as well as the “central element of … the most novel
and least understood aspect” (*Structure* 187) of his *Structure of Scientific Revolutions*.

Coleridge’s notion of ‘idea’ as a tautegorical relation that holds predictive power contains
the same insight. As Coleridge writes in his 1818 “Essays on Method”:

> The naturalist, who cannot or will not see, that one fact is often worth a thousand,
as including them all in itself, and that it first makes all the others *facts*; who has
not the head to comprehend, the soul to reverence, a *central* experiment or
observation (what the Greeks would perhaps have called a *protophenomon*); will
never receive an auspicious answer from the oracle of nature. (*F* 481)

Because an idea is by its very nature inconceivable, the conceptual realizations of that
idea do not provide “truth” in the Odyssean sense of a homecoming with nature; rather,
apprehension of the idea allows the scientist to expect “an auspicious answer” in an
exploration launched according to the Columbus allegory of inquiry.
§6 -- The Function of the Secondary Imagination: The Eduction of Ideas and the Discarding of Images

Let us return to Coleridge’s description of imagination and fancy from chapter 13 of *Biographia Literaria*:

The IMAGINATION then I consider as either primary, or secondary. The primary IMAGINATION I hold to be the living Power and prime Agent of all human Perception, and as a repetition in the finite mind of the eternal act of creation in the infinite I AM. The secondary I consider as an echo of the former, co-existing with the conscious will, yet still as identical with the primary in the kind of its agency, and differing only in degree, and in the mode of its operation. It dissolves, diffuses, dissipates, in order to re-create; or where this process is rendered impossible, yet still at all events it struggles to idealize and to unify. It is essentially vital, even as all objects (as objects) are essentially fixed and dead.

FANCY, on the contrary, has no other counters to play with, but fixities and definites. The Fancy is indeed no other than a mode of Memory emancipated from the order of time and space; and blended with, and modified by that empirical phenomenon of the will, which we express by the word CHOICE. But equally with the ordinary memory it must receive all its materials ready made from the law of association. (*BL* 1:304-05)

As both the philosophical and literal center of *Biographia Literaria*, Coleridge’s terms seem to demand further explication. A principal difficulty is that Coleridge appears to leave this explication to his readers. As Arden Reed notes: “the secondary imagination is obliged to ‘dissolve, diffuse, dissipate’ original perceptions before ‘recreating’ them, in a way that ‘idealizes and unifies.’ Precisely how this is to occur Coleridge does not indicate; indeed he says nothing more specifically about the ‘secondary imagination’ in chapter XIII or anywhere else” (89). Unable – or unwilling – to look beyond the concerns of *Biographia Literaria*, critical attempts to explicate Coleridge’s notion of secondary imagination have consistently found the distinction between secondary imagination and fancy untenable.

In this chapter I show that Coleridge’s writings after *Biographia Literaria* shift discussion of the secondary imagination away from its narrow application as an
evaluative tool for literary criticism to an examination of its role within a general theory of inquiry that foregrounds what Coleridge calls the “incalculable Value of Ideas … in all departments of Knowledge” (CN 4:5293). I argue that the secondary imagination provides the only means by which an “idea” as a function or ultimate aim is apprehended. The secondary imagination, for Coleridge, does not create “images.” It dissolves or diffuses “images” so as to draw forth an underlying idea. Coleridge’s development of the secondary imagination along these lines has escaped critical notice in part because it is discussed in unexpected registers and in part because it presupposes familiarity with Coleridge’s precise sense of the term “Idea.”

The first section sets forth the standard critical view of Coleridge’s theory of secondary imagination. The second section examines Coleridge’s use of the notion of an “educt” from chemistry to describe the link between “idea” and “imagination” in his definition of the former term in Statesman’s Manual. Humphrey Davy’s experimental discovery of potassium through the electric decomposition of potash is suggested as a source for Coleridge’s chemical appropriation. The third section explicates an extended example from the “Essays on Method” illustrative of the apprehension of ideas that clarifies the role of imagination in discarding images and reveals the immense practical scope of Coleridge’s theory.

§6.1 -- The Critical Collapse of Imagination Into Fancy

Coleridge’s initial motivation for introducing the distinction between imagination and fancy within Biographia Literaria is that the power evidenced in Wordsworth’s poetry – what Coleridge calls the imagination – in no way conforms to the image-forming
power variously called imagination or fancy that was understood by thinkers such as Hobbes to be a form of memory reducible to decaying sense. This background, combined with Coleridge’s frequent statements within the Biographia along the lines of his characterization that “Milton had a highly imaginative, Cowley a very fanciful mind” (BL 1:84), has led critics to understand the secondary imagination as primarily an evaluative tool for literary critics. Writers such as Shakespeare, Milton, and Wordsworth were to be praised as imaginative, their own work so vital and energizing as to echo even the eternal act of creation, while the work of lesser writers may be dismissed as the mechanical and deadening work of fancy. Attempts to explicate the imagination along such lines have proven unsuccessful; consequently, Coleridge’s distinction between secondary imagination and fancy is rarely seen as valid.

The most thorough attempt to show how, exactly, certain lines of verse measure up to the standards of the secondary imagination while others reduce to the work of fancy is performed by I. A. Richards in his influential Coleridge on Imagination. Richards attempts to explicate Coleridge’s distinction by analyzing two passages from Shakespeare’s Venus and Adonis that Coleridge claims are illustrative of imagination and fancy. The “fancy” passage describes Adonis’ hand, figured as a lily, enclosed by Venus’ hand, figured as a jail of snow:

Full gently now she takes him by the hand,
A lily prison’d in a gaol of snow,
Or ivory in an alabaster band;
So white a friend engirts so white a foe. (77).

The “imaginative” passage, on the other hand, figures Adonis’ retreat from Venus as a falling meteor:

Look! how a bright star shooteth from the sky
So glides he in the night from Venus’ eye. (82).

Richards draws attention in the former lines to the very limited number of apposite connections within Shakespeare’s figurations. The relevant connections between Adonis’ hand and a lily seem to be exhausted by noting that they are both white, both fair, and both pure. In similar fashion, Venus’ hand is like a jail of snow only in the sense that they are both enclosures and both white (76-81). Though Richards does not analyze them as such, these comparisons are textbook illustrations of what Coleridge calls allegorical relations as expressing markers of resemblance between different objects. While one might object to Richards’ contention that these are the only relevant connections, Richards’ point pertains to the fact that the reader is called to pick out a very limited number of relevant connections between different objects (e.g., Venus’ hand and a jail of snow are both enclosures) while disregarding a vastly greater number of others (e.g., Venus’ hand, unlike a jail of snow, is anything but freezing cold).

By contrast, Richards shows that the relevant connections in the second passage, the comparison of Adonis flight from Venus’ eye to a falling meteor, are much more difficult to exhaust. In Richards’ enthusiastic analysis:

Here Shakespeare is realizing, and making the reader realize—not by any intensity of effort, but by the fullness and self-completing growth of the response—Adonis’ flight as it was to Venus, and the sense of loss, of increased darkness, that invades her. The separable meanings of each word, Look! (our surprise at the meteor, her’s at his flight), star (a light-giver, an influence, a remote and uncontrollable thing), shooteth (the sudden, irremediable, portentous fall or death of what had been a guide, a destiny), the sky (the source of light and now of ruin), glides (not rapidity only, but fatal ease too), in the night (the darkness of the scene and of Venus’ world now)—all these separable meanings are here brought into one. And as they come together, as the reader’s mind finds cross-connection after cross-connection between them, he seems, in becoming more aware of them, to be discovering not only Shakespeare’s meaning, but something which he, the reader, is himself making. His understanding of Shakespeare is sanctioned by his own activity in it. As Coleridge says: ‘You feel
him to be a poet, inasmuch as for a time he has made you one—an active, creative being.’ (83-84)

These lines, by virtue of the experience of the reader in understanding them, are assigned to the imagination. No one would deny the felt difference in reading the lines from these two examples. Much of the excitement and influence of Richards’ *Coleridge on Imagination* resulted from the development of a vocabulary that accounted for and represented such differences.

The problem in using these examples to illustrate the difference between imagination and fancy, however, is that Coleridge’s terms are meant to mark a difference in *kind*. Coleridge claims they are the product of two quite distinct powers that will also come into play while reading. Yet the comparison of Adonis’ flight to a falling meteor only constitutes a more densely connected *allegorical* relation. It points to similarities between two different objects, just as the earlier comparison of Adonis’ hand to a lily. The differences between the two examples pertain to the number and density of relevant similarities rather than to the nature or character of those similarities. To explain the distinction between imagination and fancy via the number of connections between items in an *allegorical* relation is to collapse the distinction between Coleridge’s terms.60

More general attempts to explain Coleridge’s theory of imagination have similarly collapsed his distinction by presenting the imagination as itself a form of fancy. A principal instance may be found in what remains the most influential account of

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60 Richards is aware that his analysis, contra Coleridge, looks as though it collapses Coleridge’s distinction by providing a mechanical description of imagination. His tenuous solution is to distinguish the experience of reading these two passages with his description of that experience.
Coleridge’s theory, that provided by Thomas McFarland’s *Coleridge and the Pantheist Tradition*. As McFarland summarizes his argument:

What in fact does Coleridge mean by ‘imagination’? To this the answer is clear: *he means exactly what we all mean in ordinary language by the word imagination*. By “imagination” Coleridge means what Descartes means by “imaginatio”; what Kant means by “Einbildungskraft”; what Wordsworth means by “imagination”; what Fichte, and Schelling, and Herder, and the Schlegels, and all others, mean wherever they refer to the imaging faculty …. The differences in the formulations of the nature of imagination are dictated by differing conceptions of the faculty’s *function* in a systematic view of reality. (306-07)

In McFarland’s analysis, Coleridge’s notions of primary imagination, secondary imagination, and fancy all name different aspects or functions of the image-forming faculty well known from the history of philosophy. The primary imagination is responsible for the representation of an external object generated by the mind in the act of perception. The perception of an oak tree, for example, generates an image-representation in the mind of an actual, oak tree from the external world. While the objects of the external world are thus required to provide the content of the images produced by the mind during the act of perception, the secondary imagination and fancy reveal their freedom from the external world through their ability to modify these images. To return to the example of the oak tree, one is free to reimagine its leaves as they might change color in the autumn, to place a bird’s nest atop one of its branches, to change it into a pine tree, and so on endlessly. The secondary imagination or fancy is an ‘echo’ of the primary imagination because it is responsible for recreating an image when the original, external object that served as the basis of the representation is out of sight.

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61 McFarland’s account, while not the most recent, remains among the most frequently cited. It has recently been reprinted in *The Cambridge Companion to Coleridge* as the sole selection devoted to explaining Coleridge on imagination and fancy.
Secondary imagination and fancy, on this analysis, do not represent different faculties. They merely name different aspects of the same image-forming power. As McFarland argues:

Coleridge’s distinction of imagination and fancy (despite his own explicit claims) does not really divide the imaging faculty, but only distinguishes its modes. Thus in a marginal note on the flyleaf of Maass’s *Versuch über die Einbildungskraft*, Coleridge speaks of ‘the sensuous Einbildungskraft . . . which we call Imagination, Fancy &c. all poor & inadequate Terms’ (310).

On McFarland’s reading, to image external reality by means of aggregation and memory is what is indicated by fancy, while the recreation of images into a poetic whole is indicated by secondary imagination.

Criticism in the wake of McFarland’s *Coleridge and the Pantheist Tradition* has tended either to take the collapse of secondary imagination into fancy for granted or to repeat the result across a variety of thematic registers. Paul de Man’s argument that symbol is a mystified notion of allegory from “The Rhetoric of Temporality” was, as examined in section §3.5, the most prominent example. The influence of de Man’s argument is seen in many later repetitions of the collapse of imagination and fancy. Arden Reed’s *Romantic Weather*, for instance, translates Coleridge’s terminology into a thematics of weather to perform a deconstructive analysis that argues that “secondary imagination and fancy may be two stages of the same process” (199). It is on the basis of such readings that Coleridge’s theory of the imagination, that obscure yet central concept in the formalization of professional criticism in the English-speaking world, has itself begun to fade into obscurity as the untenability of his theory of secondary imagination is taken for granted.
§6.2 -- Idea as an Educt of the Imagination: A Metaphor From Chemistry

Coleridge’s definition of “idea” from the glossary appended to *The Statesman’s Manual* explicitly links Coleridge’s two central terms:

[T]hat which is neither individual (i.e. a sensible Intuition) nor general (i.e. a conception) which neither refers to outward Facts nor yet is abstracted from the FORMS of perception contained in the Understanding; but which is an educt of the Imagination actuated by the pure Reason, to which there neither is or can be an adequate correspondent in the world of the senses -- this, and this alone is = AN IDEA. (*LS* 113-14)

An idea is defined as “an educt of the Imagination.” The use of educt as a noun is derived from the verb ‘educe’ as a process of drawing out or bringing forth. According to the *Oxford English Dictionary*, the noun was the exclusive property of chemists who used it to refer to “a body separated by the decomposition of another in which it previously existed as such, in contradistinction to product, which denotes a compound not previously existing, but formed during the decomposition” (*OED* “educt,” def. 1). The range of “educt” was extended to cover “a result of inference or development” (*OED* “educt,” def. 2), and the *OED* cites a passage from Coleridge’s *Statesman’s Manual* as the first such usage. This adoption of a chemical metaphor helps to clarify and refine the account of secondary imagination offered in *Biographia Literaria*: “it dissolves, diffuses, dissipates, in order to re-create” (*BL* 1:304).

It is not surprising that Coleridge appropriates a term from chemistry. He famously claims that one of the chief reasons he attended Humphrey Davy’s lectures on

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My students found the following, made-up example useful for understanding these distinctions. Picture a Reese’s Peanut Butter Cup, a candy that consists of a chocolate coating that surrounds a peanut butter center. Picture an experiment wherein a liquid poured over the candy bubbled up to dissolve the coating but left the peanut butter center intact. The gas formed from the combination of the liquid and the chocolate is a product. The peanut butter center, on the other hand, is an educt; it was not formed during the decomposition but already existed as such beforehand.
chemistry in 1802 was to enrich his stock of metaphors. Coleridge’s deep interest in the subject in fact dates from his 1799 meeting of Humphrey Davy, then Thomas Beddoes’ Assistant at the Pneumatic Institution in Bristol. The friendship between Coleridge and Davy is well-known: their exchanges of poetry, joint inhalation of nitrous oxide, Davy’s correction of the proofs of the 1800 edition of *Lyrical Ballads*, and Coleridge’s occasional attendance at Davy’s treatment of patients at the Pneumatic Institute have been thoroughly documented. In a marginal note written on John Barclay’s *Argenis* written in 1809, Coleridge even identifies Davy and Wordsworth as the two great men of the age: “Wordsworth, the greater of the two great men of this Age—(at least, except Davy & him I have known, read of, heard of, no others)” (*CM* 1:220). My interest in the friendship is to examine Davy’s best-known experiment as a possible source for Coleridge’s chemical metaphor. Additionally, tracking Coleridge’s growing knowledge of chemistry provides further illumination of his conception of method.

In a January 1800 letter to Davy, Coleridge states his almost complete ignorance of chemistry. Recalling a recent conversation where William Godwin confessed it was a shame that a man of Davy’s gifts was squandering his talent on chemistry, Coleridge’s replies: “Why, quoth I, how Godwin! can you thus talk of a science, of which neither you nor I understand an iota?” (*CL* 1:557). In July of the same year, Coleridge determined to remedy his ignorance and wrote to Davy of his plan to “attack chemistry, like a Shark” (*CL* 1:605). Davy’s February 1801 appointment as director of the chemical laboratory and assistant lecturer in chemistry at the Royal Institution helped to spur and maintain Coleridge’s interest. The opportunity to truly immerse himself in the subject in came with

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63 Extended accounts of the relationship are provided by Coburn’s “Coleridge: A Bridge between Science and Poetry,” Levere’s *Poetry Realized in Nature* (20-35), and, more recently, by Richard Holmes’ *The Age of Wonder* (235-305).
Davy’s Royal Institution Lectures on “General Chemistry” in early 1802. It was this lecture course that Coleridge claimed to attend, in part, to enlarge his stock of metaphors. To state that he was merely on the lookout for useful metaphors, however, does not convey the utmost seriousness and interest he brought to his study of the science. Coleridge took copious notes throughout Davy’s course, running to 60 pages in Coleridge’s original hand. Of these notes, Kathleen Coburn, editor of the Coleridge Notebooks and general editor of the Collected Coleridge, accurately states:

“It is something of a shock, however, even to a hardened Coleridgian, to open Notebook 8 and find in Coleridge’s autograph such specific chemistry as this: ‘Zinc filings acted on by a diluted sulphuric acid evolves hydrogen gas. Borax with a porcelain clay good Lute for high degrees of heat – for lower degrees Lime with white of Eggs, but this must be applied fresh. Oxygen Gas discovered by Priestly – easiest produced by the action of black Oxyd of Manganese -- & Sulphuric Acid – mix equal quantities in a retort thro’ a funnel (to prevent the neck of the Retort being dirtied) – take out the funnel & put the glass stopper in the place -- & put it over the Lamp, the end of the Retort in the water Trough” (“Bridge” 88-89)

A further indication of Coleridge’s seriousness in learning chemistry is supplied by what he left out of his notes. No mention whatsoever is made of Davy’s celebrated first lecture on the relation of chemistry to other sciences and to the arts.

Coleridge’s studies in chemistry around this time led him to articulate an objection that goes to the heart of Coleridge’s own methodological writings. He complains to Davy that chemical theories are unable to explain the sorts of arrangement upon which chemical attributes seem to depend: “That which most discourages me in it is that I find all power & vital attributes to depend on modes of arrangement – and that Chemistry throws not even a distant rush-light glimmer upon this subject” (CL 2:727).

Progressive arrangement is one of the central concepts in Coleridge’s thought. It is most famously invoked in his declaration that poetry possesses a logic of its own in Biographia
Recalling the lessons of James Boyer, his schoolmaster at Christ’s Hospital, Coleridge writes:

At the same time that we were studying the Greek Tragic Poets, he made us read Shakespeare and Milton as lessons: and they were the lessons too, which required most time and trouble to bring up, so as to escape his censure. I learnt from him that Poetry, even that of the loftiest, and, seemingly, that of the wildest odes, had a logic of its own, as severe as that of science; and more difficult, because more subtle, more complex, and dependent on more, and more fugitive causes. In the truly great poets, he would say, there is a reason assignable, not only for every word, but for the position of every word; and I well remember, that availing himself of the synonymes to Homer of Didymus, he made us attempt to show, with regard to each, why it would not have answered the same purpose; and wherein consisted the peculiar fitness of the word in the original text. (BL 1:9).

In the “Essays on Method” Coleridge uses the aim that stands behind the progressive arrangement of the speech of an educated man as the analogue for an idea within his theory of inquiry. The idea allows for a progressive arrangement or sequencing of parts. Coleridge writes that a “creative IDEA appoints to each thing its position, but in that position, and in consequence of that position, gives it its qualities, yea, it gives its very existence, as that particular thing” (F 459). Methodical inquiry – whether in a poem, everyday conversation, or a work of science -- is evidenced by progressive arrangement. Things are rendered intelligible – even given their proper identity – only through specifying their relations within an arrangement to other things through an idea. Both the arrangement of organs within John Hunter’s Museum of Natural History and the arrangement of planets within Kepler’s physical astronomy provide examples already discussed. Coleridge’s 1801 complaint to Davy is equivalent to the notion that Coleridge was unable to find evidence of ideas in the leading chemical theories.

Davy’s most famous experiment – and the research for which he remains best-known – addresses, but there is no evidence that it was prompted by, Coleridge’s
complaint. Davy suggests the central role of electrical polarity in underly-
ning the arrangement and modes of composition of chemical elements and compounds. His work was based upon William Nicholson and Anthony Carlilse’s use of a voltaic pile (or battery) to decompose water into hydrogen and oxygen gas. The surprise in Nicholson and Carlilse’s experiment was the appearance of the two gases at different electrodes. Their result is a prime example of what Coleridge elsewhere calls “a revelation, in ciphers, the key to which is still wanting” of a phenomenon so startling and mysterious as to “have forced on us a presentiment of its intimate connection with all the great agencies of nature” (F 480). Davy’s own work with voltaic piles at the Royal Institution starting in 1801 led him to announce a proposal in the 1806 Bakerian lecture at the Royal Society that chemistry might be reformulated through the recognition that chemical combination was dependent upon electrical energy. Electrolysis, Davy suggested, could be used to discover new elements through the decomposition of chemical compounds, and these elements could then be classified or arranged according to their electrical properties.64

Davy’s 1807 Bakerian lecture records his experimental success and increased the plausibility of his proposal. It relates the experiment in which he isolated potassium by using an electrical current to decompose caustic potash. The experiment is relatively straightforward. A large voltaic pile supplied electrical current to two electrodes placed in a heat-proof container filled with melted potash. The current decomposed the potash. Hydroxide ions were attracted to the positive electrode where they formed water and oxygen gas. The potassium ions were attracted to the negative electrode. Davy describes the discovery of potassium through the result of applying current as follows:

64 See Davy’s Bakerian 1806 lecture “On Some Chemical Agencies of Electricity,” in addition to Coburn’s “Bridge,” Levere, and Holmes.
[A] vivid action was soon observed to take place. The potash began to fuse at both its points of electrization. There was a violent effervescence at the upper surface; at the lower, or negative surface, there was no liberation of elastic fluid; but small globules having a high metallic lustre, and being precisely similar in visible characters to quicksilver, appeared, some of which burnt with explosion and bright flame, as soon as they were formed, and others remained, and were merely tarnished, and finally covered by a white film which formed on their surfaces. These globules, numerous experiments soon showed to be the substance I was in search of, and a peculiar inflammable principle the basis of potash. (60-61).

While the experiment is not difficult to understand, much of Davy’s lecture concerns the checks and tests he performed to make sure that the material was in fact brought forth from the decomposition of potash and not produced by foreign substances. For instance, Davy had to make sure that the globules formed at the negative electrode were not produced in part by the material used for the electrode (the result was repeated when graphite, copper, silver, gold, and even charcoal were used) and that the surrounding air was not influencing the experiment (the same globules of potassium could be formed in a vacuum). And potassium itself is so incredibly reactive that Davy encountered numerous difficulties in submitting it to further experiments. Davy’s experiment is an instance of what Coleridge calls “a central experiment or observation” that serves as an easily emulated model through which the scientist may expect to receive what Coleridge calls “an auspicious answer from the oracle of nature” (F 481). In this case, Davy’s discovery of potassium was soon followed by the discovery of sodium, magnesium, calcium, barium, and strontium by similar means. Davy’s work met with widespread acclaim, both for the discovery of new chemical elements and for the promise of discovering laws of chemical composition on the basis of the power of electric polarity.

Davy discovered potassium on October 6, 1807, approximately six weeks before his announcement of the discovery at the November 19 Bakerian lecture at the Royal
Society. Coleridge arrived in London four days after the lecture, as Davy had previously arranged for Coleridge to deliver a course of lectures on “The Principles of Poetry” at the Royal Institution. Coleridge visited Davy the day after he arrived in London, and expressed in a letter to Dorothy Wordsworth his concern over Davy’s health as well as his own excitement regarding the importance of Davy’s recent discovery:

I found Davy, this morning, in bed, very seriously unwell—and am going to sit by him this evening. He had exposed himself to too violent alterations of Cold and Heat during the March of Glory, which he has run for the last six weeks—within which time by the aid and application of his own great discovery, of the identity of electricity and chemical attractions, he has placed all the elements and all their inanimate combinations in the power of man; having decomposed both the Alkalies, and three of the Earths, discovered as the base of the Alkalies a new metal, the lightest, most malleable, and most inflammable substance in nature—a metal of almost ethereal Levity—and which burns under water by merely being placed by the side of Sulphur. He has proved too, that by a practicable increase of electric energy all ponderable compounds (in opposition to Light & Heat, magnetic fluid, &c) may be decomposed, & presented simple--& recomposed thro’ an infinity of new combinations. (CL 3:38).

This summary of Davy’s work is overzealous and so slightly exaggerated. Coleridge reports what he hoped the work would amount to – the decomposition through electric energy of all ponderable compounds – rather than merely summarizing the results of the research Davy had conducted. The importance of Davy’s electrical decompositions stuck with Coleridge, even after the dissolution of their friendship. The following passage from the “Essays on Method” makes a clear reference to Davy’s electrolytic decompositions without directly invoking the chemist’s name:

Such, too, is the case with the assumed indecomponible substances of the LABORATORY. They are the symbols of elementary powers, and the exponents of a law, which, as the root of all these powers, the chemical philosopher, whatever his theory may be, is instinctively laboring to extract. This instinct, again, is itself but the form, in which the idea, the mental Correlative of the law, first announces its incipient germination in his own mind: and hence proceeds the striving after unity of principle through all the diversity of forms, with a feeling resembling that which accompanies our endeavors to recollect a forgotten name; when we seem at
once to have and not to have it; which the memory feels, but cannot find. \((F\ 470-71)\)

The passage immediately follows a restatement that knowledge of a law provides the power of prophecy and decisive experiment.

Was Davy’s electrical decomposition of potash to reveal potassium in Coleridge’s mind when he described an “idea” as “an educt of the Imagination”? The secondary imagination, in such a case, is likened to an electrical power that breaks down familiar combinations to reveal the reactive, volatile elements contained within. In Coleridge’s analysis in Biographia Literaria, the imagination revitalizes the world by separating it from the dulling effects of custom. The world before us, like potassium, is so alive, so shot through with reactive power and interest that it is difficult to hold onto or contain, yet when it is combined with or overlain by our staid notions of it, the everyday world appears as dull as potash, that combination of potassium with hydroxide.

The original source for Coleridge’s use of “educt” is not as important as the implications the chemical metaphor holds for understanding Coleridge’s theory of secondary imagination. The older, chemical use of “educt” implies that the result of imaginative activity is not, as we so often believe, the creation of something imaginary or new; rather, Coleridge suggests that the imagination brings forth an idea that was previously buried, covered, or otherwise inaccessible by a process – “it dissolves, diffuses, dissipates” – analogous to chemical decomposition. The idea educed by the imagination, that is to say, does not exist in some Platonic or supersensible realm but is already present in the phenomena. This point is crucial to understanding Coleridge’s position: when the secondary imagination “dissolves, diffuses, dissipates, in order to re-create,” it does not “re-create” an idea. This would make the idea a product, not an educt.
As we saw in chapter §5.2, it is the idea that is used to “re-create” other phenomena insofar as it renders such phenomena intelligible.

By extending the range of “educt” to include “a result of inference or development,” and by describing an idea as “an educt of the Imagination,” Coleridge shifts discussion of the imagination away from a psychological register pertaining to sensory perception to a logical register pertaining to the validity of a mode of inference. Imaginative or eductive inference provides the logical activity by which an idea or ultimate aim is apprehended, and that is missing in Kant’s account of the reflecting judgment. Because ideas have an “indispensable presence in the Sciences that have a worth as well as a Value to the Naturalist no less than to the Theologian, to the Statesman no less than to the Moralist” (CN 4:5293), the imagination plays a foundational role in all inquiry.

§6.3 -- The Operation of Secondary Imagination: The Dismission of the Imagery

Coleridge provides an early rendition of his distinction between imagination and fancy in an 1811 Notebook entry:

The image-forming or rather re-forming power, the imagination in the passive sense, which I would rather call Fancy = Phantasy …, this, the Fetisch & Talisman of all modern Philosophers (the Germans excepted) may not inaptly be compared to the Gorgon Head, which looked death into every thing—and this not by accident, but from the nature of the faculty itself …. From the above deduce the worth & dignity of poetic Imagination, of the fusing power, that fixing unfixes & while it melts & bedims the Image, still leaves in the Soul its living meaning--” (CN 3:4066)

This passage makes abundantly clear that, contra Coleridge criticism, the secondary imagination is not an image-producing faculty. To associate the secondary imagination with image-making runs in precisely the wrong direction. The secondary imagination
does not create the image; it “melts & bedims the Image” in order to bring forward what
Coleridge describes only as a “living meaning.” Substitute “idea” for “living meaning” –
and remember that Coleridge writes “every idea is living, productive, partaketh of
infinity, and (as Bacon has sublimely observed) containeth an endless power of
semination” (LS 23-24) – and the Notebook passage is remarkably consonant with the
statement that an “idea” is an “educt of the imagination” from the glossary appended to
Statesman’s Manual. Coleridge’s descriptions of the eduction of ideas from the “Essays
on Method” both reinforce and exemplify the operation of the secondary imagination as
the discarding of imagery in the drawing forth of an idea.

Coleridge’s most detailed example of the eduction of an idea – and therefore of
the operation of the secondary imagination – occurs in his analysis of the recent progress
made in the study of electricity as contrasted with a lack of progress in the study of
magnetism. Coleridge’s conclusion – that the theories of the electricians contain an idea,
while those of the magnetists do not – was highlighted in the last chapter as providing
Coleridge’s answer to what he calls philosophy’s highest problem. The passage, worth re-
quoting in full, rewards further analysis as additionally providing a description of the
operation of the secondary imagination.

In what shall we seek the cause of this contrast between the rapid progress of
electricity and the stationary condition of magnetism? As many theories, as many
hypotheses, have been advanced in the latter science as in the former. But the
theories and fictions of the electricians contained an idea, and all the same idea,
which has necessarily led to Method; implicit indeed, and only regulative hitherto,
but which requires little more than the dismissal of the imagery to become
constitutive like the ideas of the geometrician. (F 481).

An idea is brought forth from the theories and fictions that contain it through “the
dismission of the imagery.” Coleridge draws upon multiple senses of the word
‘dismission.’ According to a less familiar sense of term, the idea is released from confinement, set free, or liberated, as, according to a more familiar usage, the imagery previously surrounding, obscuring, or distorting that idea are sent away, discharged, or expelled.\(^6^5\) This passage, from the work that Coleridge repeatedly singles out as his most valuable, brings together several of his major critical concerns at the time of its composition: it offers his answer to the highest problem of philosophy, it clarifies the function of the secondary imagination by describing its operation – “it dissolves, diffuses, dissipates, in order to re-create” – as the discarding of imagery in the liberation of an idea, and it shows how he situates his notion of the secondary imagination within a general theory of inquiry that now comprehends scientific, in addition to literary and philosophic, examples. It deserves a certain pride of place in the Coleridge canon, but it has not, as far as I am aware, ever been singled out for analysis.

To understand Coleridge’s exemplification of the dismission of the imagery, it is necessary to possess his list of the various “insecure hypotheses” used to support a theory of electricity: “that by one theorist two heterogeneous fluids are assumed, the vitreous and the resinous; by another, a plus and minus of the same fluid; that a third considers it a mere modification of light; while a fourth composes the electrical aura of oxygen, hydrogen, and caloric” (\(F\ 478\)). The imagery in these hypotheses include notions such as fluid and aura. Dismiss this imagery “and we shall have neither notional fluid or fluids, nor chemical compounds, nor elementary matter,—but the idea of two—\(opposite\)—forces, tending to rest by equilibrium (\(F\ 478\)). This idea announces its correlative law of polarity. It “gives the law, and in it the \textit{method}, both of arranging the phenomena and of

\(^{65}\) I am indebted to Zachary Gartenberg for this observation.
substantiating appearances into facts of science; with a success proportionate to the
clearness or confusedness of insight into the law” (F 478).

Because no idea can ever be fully rendered by a conception, perfect insight into
the law in the sense of perfect correspondence between one’s theory of a law and the law
itself is an impossible goal. The possession of an idea does not grant the scientist Truth
according to a correspondence theory; he instead will “receive an auspicious answer from
the oracle of nature” (F 481). The replacement of one theory with another – as Einstein’s
theory of relativity replaced Newton’s theory of gravity – would not have surprised
Coleridge. Nor does it shatter a conviction of the reality of gravity as a power. The more
successful theory offers clearer insight into a law whose reality is already taken for
granted. The possibility of theory change is built into Coleridge’s conception of inquiry.

In contrast to the hypotheses of the electricians, the theories and hypotheses of the
magnetists – “the planet itself is one vast magnet, or that an immense magnet is
concealed within it; or that of a concentric globe within the earth, revolving on its own
independent axis” (F 481) -- do not contain an idea. To dismiss the imagery of these
passages leaves one only with the name of the phenomenon – magnetism -- that the
theories are supposed to have rendered intelligible. They are, as Coleridge writes, “but
repetitions of the same fact or phenomenon looked at through a magnifying glass; the
reiteration of the problem, not its solution” (F 481).

The suggestion implicit in Coleridge’s discussion is that the time is ripe for the
unification of the “sister sciences” of electricity and magnetism through an idea that
reveals them as tautegorical expressions of the same underlying law. Such a unification
was, of course, the crowning achievement of nineteenth century physics when James
Clerk Maxwell provided the theoretical unification of the experimental work performed by Michael Faraday, the laboratory assistant to Humphrey Davy at the time the “Essays on Method” were written.
§7 -- The Imagination as an Idea

The chapters on Coleridge opened with an 1801 letter that advanced Coleridge’s belief that the mind is not passive but made in the image of the creator. Coleridge stated that this was merely an opinion, and expressed the desire both to offer a proof of his foundational principles and to construct a system on the basis of those principles.

Coleridge’s most prominent attempt to establish the validity of the imagination occurs in the abandoned, Schelling-styled deduction in *Biographia Literaria*. The second chapter analyzed Coleridge’s later objections to Schelling as they might apply to Coleridge’s own work in the *Biographia*. These objections, read in conjunction with the theory of inquiry Coleridge developed in the years immediately following the composition of *Biographia Literaria*, show that the validity of a principle is not established by means of a transcendental deduction. Rather, the validity of an opinion is secured through its transformation into an idea that renders a variety of phenomenon intelligible. In this chapter I argue that Coleridge’s “Essays on Method” may be read as an attempt to present the imagination as an idea, and so secure its validation as a principle.

What does the presentation of the imagination as an idea yield? The answer is implied from Coleridge’s observations that, on the one hand, method results from the designation and conveyance of an idea, and, on the other hand, that the function of the secondary imagination is the apprehension of an idea. If the conveyance of an idea provides method (as was examined in chapters four and five), and if the operation of the imagination pertains to the apprehension of ideas (as was examined in chapter six), then Coleridge’s treatment of the imagination as itself an idea can only open a path of transit to the principles underlying all method. While a conception of logic as the method of
methods is at least as old as Petrus Hispanus’ *Summulae Logicales*, Coleridge’s analysis is unique in that it comprehends the *imaginative* ground of all intellectual work.

§ 7.1 -- Eeducing the Imagination as an Idea

The opening of the “Essays on Method” mark a return to an important component of Coleridge’s criticism of Wordsworth’s 1800 “Preface” to *Lyrical Ballads*. Namely, the beginning of the “Essays” continue to develop Coleridge’s arguments in *Biographia Literaria* against the elevated status Wordsworth accords the language of humble and rustic life. Wordsworth claims in the “Preface” that within his poetry “the language, too, of these men [of rustic life] has been adopted (purified indeed from what appear to be its real defects …) because such men hourly communicate with the best objects from which the best part of language is originally derived” (Wordsworth 483). Coleridge, in *Biographia Literaria*, cites the entire passage in which this claim occurs as “the point, to which all lines of difference [between Coleridge’s opinions and Wordsworth’s opinions] converge as to their source and center” (*BL* 2:45). Coleridge’s objections are not to humble and rustic life *per se*. Rather, he argues that so far from possessing the qualities claimed by Wordsworth, the language of rural life is characterized chiefly by the comparative and debilitating lack of education received by its inhabitants.

Coleridge is, of course, not indifferent to the importance and value of the natural objects familiar to the rustic. This is clear from even the most superficial glance at his conversation poems. These poems continually testify to the power of nature as a primary and indispensable source for the proper development and cultivation of human faculties. Speaking of his infant son within “The Nightingale,” Coleridge presents myriad reasons
why “I deem it wise / To make him Nature’s Play-mate” (PW 1:520). The action of “This Lime-Tree Bower My Prison” builds to the narrator’s realization

That Nature ne’er deserts the wise and pure;
No plot so narrow, be but Nature there,
No waste so vacant, but may well employ
Each faculty of sense, and keep the heart
Awake to Love and Beauty! (PW 1:353)

And so on. The difficulty is that such lessons are only conveyed with proper mediation and guidance. To learn and implement them requires something more than constant and prolonged exposure to nature. As Coleridge writes in Biographia Literaria, “Education, or original sensibility, or both, must pre-exist, if the changes, forms, and incidents of nature are to prove a sufficient stimulant” (BL 2:45). Coleridge denies that continual exposure to nature constitutes communication with it insofar as communication requires forms of discrimination and reflection that exceed the knowledge of relations requisite to satisfy the necessities of bodily conveniences. Though Coleridge does not provide an example within Biographia Literaria, Davy’s electrolytic decomposition of potash would seem to qualify as an instance of communication with nature, insofar as it allows Davy to ask questions and receive back “an auspicious answer.” Cutting down a tree to procure firewood, on the other hand, does not constitute a sustainably stimulating example of communication.

Coleridge disputes Wordsworth’s claim that the admirable quality of the language of the rustic is derived from the essentials of the rural lifestyle. Coleridge more accurately points out that the quality Wordsworth admires may be traced to the widespread availability of the King James Bible. This book was the central aspect of a “solid and religious EDUCATION, which has rendered few books familiar, but the bible, and the
liturgy or hymn book” (BL 2:44). Coleridge correctly notes that the availability and acceptance of the King James Bible is not essential to rustic life. It is simply a historical accident that happens to pertain at a particular time and place.

Coleridge further points out that the language of rustic life may be characterized primarily by its lack of discriminatory terms. As he writes: “a rustic’s language, purified from all provincialism and grossness, and so far re-constructed as to be made consistent with the rules of grammar … will not differ from the language of any other man … except as far as the notions, which the rustic has to convey, are fewer and more indiscriminate” (BL 2:52). In a passage that could serve as an especially apt motto to the “Essays on Method,” Coleridge contrasts the rustic with the “educated man”:

[T]he rustic, from the more imperfect development of his faculties, and from the lower state of their cultivation, aims almost solely to convey insulated facts, either those of his scanty experience or his traditional belief; while the educated man chiefly seeks to discover and express those connections of things, or those relative bearings of fact to fact, from which some more or less general law is deducible. For facts are valuable to a wise man, chiefly as they lead to the discovery of the indwelling law, which is the true being of things, the sole solution of their modes of existence, and in the knowledge of which consists our dignity and our power. (BL 2:53)

To draw on the earlier analysis of Coleridge’s theory of inquiry, the goal of the educated man is to validate his connections by realizing them as ideas. The rustic tends only to convey insulated facts and so is lacking in ideas. It is not that he possesses any less inherent capacity for discrimination, connection, or imaginative eduction. That is simply a by-product of a comparative lack of education.

This contrast between the educated man and the rustic is transformed in the opening of the “Essays on Method” into an examination of the speech of an educated man as contrasted with that of an ignorant man. The ignorant man, however, is not
identified with the rustic at all. He may even be “shrewd and able in his particular calling” \( (F\ 449) \), whether that occupation is urban or rural.

Coleridge opens the “Essays” by asking his readers to recall an incident where they were particularly struck with the intelligence of the talk of a stranger. Coleridge claims the impression made by such an event will be felt even when the conversation is confined to trivial subjects, such as the state of the weather, that exclude the recourse to unusual words, uncommon observations, or references to out-the-ordinary facts. Through a process of elimination, Coleridge argues that the impression in such cases must result from “the unpremeditated and habitual arrangement of his words, grounded on the habit of foreseeing, in each integral part, or (more plainly) in every sentence, the whole that he intends to communicate” \( (F\ 449) \). The “well-educated” man arrives at his point without the introduction of any extraneous material. Every sentence is singularly directed to and ordered by the ultimate aim he intends to convey. The arrangement is progressive insofar each sentence builds to that ultimate aim. The aim shines through the individual parts of his speech in the same way that a symbol may be characterized through a translucence of the whole shining through the part. It is important to note that the impression is not the mark made by an inscrutable genius. Method is instead a product of education, a benefit conferred by the proper cultivation and development of the mind.

The talk of the educated man is contrasted with that of “an ignorant man.” In the speech of the latter, “[w]e immediately perceive that his memory alone is called into action; and that the objects and events recur in the narration in the same order, and with the same accompaniments, however accidental or impertinent, as they had first occurred to the narrator” \( (F\ 449) \). The reliance on memory is evidence that the ignorant man only
uses fancy, or that passive faculty that Hobbes identifies as a mode of memory synonymous with decaying sense. Instead of eliminating all information that is incidental to the purpose of his speech, the talk of the ignorant man simply restates the entire course of action that led to the observation or point he intends to convey. As Coleridge writes: “The necessity of taking breath, the efforts of recollection, and the abrupt rectification of its failures, produces all his pauses; and with the exception of the “and then,” the “and there,” and the still less significant “and so,” they constitute likewise all his connections” (F 449). The simple connection of the temporal – the “and then” – designates what happens next, while the simple connection of the spatial – the “and there” – designates what happens alongside. The “and so” does not refer to the result of a necessary inference, but is less significant still because it is an empty transition that just makes way for the next item in the recollected sequence. The arrangement is not progressive.

Having introduced the theme of method with the example of the talk of the educated man, Coleridge proceeds to isolate the two main factors or components of method through extracts of speeches made by characters within Shakespeare’s plays. Coleridge’s invocation of the “myriad-minded Bard” (F 453) is typical of his Shakespearian criticism, and keyed to Coleridge’s belief that Shakespeare adequately possessed and mastered the full idea of human nature. That idea shines through his characters, each of which stand as a different tautegorical expression of the same idea of humanity. Coleridge expressed this belief in different ways, from the simple observation that in Shakespeare we find “[human] nature idealized into poetry” (F 471) to an extended simile whereby “[i]n all his various characters, we still feel ourselves
communing with the same human nature, which is every where present as the vegetable sap in the branches, sprays, leaves, buds, blossoms, and fruits” (F 457).

The first extract is a speech by Mistress Quickly from Henry IV. It is another version of the talk of the ignorant man and it exemplifies a complete lack of method. Quickly, it is worth noting, is not a rustic, but instead the proprietor of the Boar’s Head Tavern in Eastcheap, London.

FALSTAFF. What is the gross sum that I owe thee?

Mrs. QUICKLEY. Marry, if thou wert an honest man, thyself, and the money too. Thou didst swear to me upon a parcel-gilt goblet, sitting in my dolphin chamber, at the round table, by a sea-coal fire, on Wednesday in Whitsun week, when the prince broke thy head for likening his father to a singing-man in Windsor—thou didst swear to me then, as I was washing thy wound, to marry me and make me my lady thy wife. Canst thou deny it? Did not goodwife Keech, the butcher’s wife, come in then and call me gossip Quickley?—coming in to borrow a mess of vinegar: telling us she had a good dish of prawns— whereby thou didst desire to eat some— whereby I told thee they were ill for a green wound, &c. &c. &c. (F 450-51)

Quickly’s speech, like that of the ignorant man, is marked only by the simple connections of time and place. Her talk is dominated both by the basic spatial relation of the “and there” (“in my dolphin chamber, at the round table, by a sea-coal fire”) and by the basic temporal relation of the “and then” (“Did not goodwife Keech, the butcher’s wife, come in then and call me gossip Quickley?—coming into borrow a mess of vinegar: telling us she had a good dish of prawns”). It is not that Quickly fails to make her point. The purpose is conveyed. The problem lies in the arrangement of her words, or more precisely, in the inability to discard unnecessary appurtenances. There is throughout the speech evidence of what Coleridge identifies as “an habitual submission of the understanding to mere events and images as such, and independent of any power in the mind to classify or appropriate them” (F 451). Such a power is responsible not only for
the classification of information. It is also needed in order to filter information. Hence the force of Goodwife Keech’s label, gossip quickly.

As an exemplary instance of the opposite trait, Coleridge presents Hamlet’s speech to Horatio that relates the events that transpired during Hamlet’s proposed voyage to England. Hamlet’s speech represents a mind brimming over with the powers of classification and generalization.

I sat me down;
Devis’d a new commission; wrote it fair.
I once did hold, as our statists do,
A baseness to write fair, and labored much
How to forget that learning; but sir, now
It did me yeoman’s service. Wilt thou know
The effect of what I wrote?

Hor. Aye, good my lord.

Ham. An earnest conjuration from the king,
As England with his faithful tributary;
As love between them, like the palm, might flourish;
As peace should still her wheaten garland wear,
And many such like As’s of great charge—
That on the view and knowing of these contents
He should the bearers put to sudden death,
No shriving time allowed.
Hor. How was this sealed?

Ham. Why, even in that was heaven ordinant.
I had my father’s signet in my purse,
Which was the model of the Danish seal:
Folded the write up in the form of the other;
Subscribed it; gave’t the impression; placed it safely,
The changeling never known. Now, the next day
Was our sea-fight; and what to this was sequent,
Thou knowest already.
Hor. So Guildenstern and Rosencrantz go to’t?

Ham. Why, man, they did make love to this employment.
They are not near my conscience: their defeat
Doth by their own insinuation grow.
’Tis dangerous when the baser nature comes
Between the pass and fell incensed points
Of mighty opposites. (F 452-53)
Neither Hamlet’s speech nor Quickly’s speech are exemplars of method. Quickly’s phrases are not all adapted to the point she is trying to convey. The talk digresses by relating all of the unnecessary, intervening circumstances of time and place that are conjoined with the pertinent information she aims to relate. Hamlet’s speech also digresses. Instead of conveying a list of unnecessary particulars concerning his voyage, however, Hamlet interrupts the course of his narration to state general truths and ironies. Coleridge marks these general reflections by italicizing them. Whereas Quickly’s speech provides too much information, Hamlet’s speech tends to omit relevant facts. Horatio’s questions are twice required to direct Hamlet’s attention away from its meditative excess and back to the material circumstances of his escape. Hamlet’s tendency to overanalyze causes him to leave out how he was able to seal his newly-written commission, and, more importantly, the same tendency causes him to pass too quickly over his death sentence for Rosencrantz and Guildenstern. Hamlet’s admitted failure of conscience, the passage suggests, is linked to his excess of meditation and is indicative of what will befall him at the end of the play.66

The juxtaposition of the two speeches reveals that each may be characterized by an imbalance. Hamlet tends to overgeneralization and is constant danger of a disconnection from the material world. His speech is an overuse of method. Quickly does not generalize at all. Her speech precludes the very possibility of method. As Coleridge draws the apposite lesson:

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66 A reading of *Hamlet* along these lines is provided by Leroy Searle’s “The Conscience of the King.” Julie Ellison’s *Delicate Subjects: Romanticism, Gender, and the Ethics of Understanding* considers the juxtaposition of Quickly and Hamlet. Rather than dismissing the imagery surrounding the extracts to understand them as exemplars of method, Ellison argues that Coleridge “conflates metonymic literalism with women’s lasciviousness and gossip” (201).
If overlooking the different value of the matter in each [speech], we considered the form alone, we should find both inmethodical; Hamlet from the excess, Mrs. Quickly from the want, of reflection and generalization; and that Method, therefore, must result from the due mean or balance between our passive impressions and the mind’s own re-action on the same. (F 453)

The talk of the educated man reveals that method is evident through a proper arrangement of words that are connected by and coordinated to a designated aim. The examples from Shakespeare isolate the two main factors of method as an active reflection upon passive impressions.

The notion of a due mean or balance between the passive and active is a central component of Coleridge’s theory of imagination. It recalls Coleridge’s description of the curious movement of a water-insect as a metaphor for the imagination from *Biographia Literaria*:

> Most of my readers will have observed a small water-insect on the surface of rivulets, which throws a cinque-spotted shadow fringed with prismatic colors on the sunny bottom of the brook; and will have noticed, how the little animal wins its way up against the stream, by alternate pulses of active and passive motion, now resisting the current, and now yielding to it in order to gather strength and a momentary fulcrum for a further propulsion. (BL 1:124).

Coleridge’s depiction is an example of *allegorical* relation that marks the similarity or resemblance between the upstream motion of the insect and the imagination as a faculty of the human mind. The principal similarity is that both exhibit motions that alternate between active propulsion and passive resistance. Furthermore, the activity of the water-insect in spreading a colored shadow over the bottom of the stream is similar to Coleridge’s description of Wordsworth’s imaginative activity as “spreading the tone, the atmosphere, and with it the depth and height of the ideal world” over everyday characters and occurrences (BL 1:80). Neither situation is obscured by its covering. Just as the bottom of the stream remains visible, but is seen through the prismatic colors that fringe
the shadow of the insect, so are common characters and events colored by the ideal tones of Wordsworth’s poetry.

Coleridge discovered a similar emblem of the imagination while reading John Stavorinus’ *Voyages to the East Indies*. An 1810 *Notebook* entry consists of transcriptions of passages from that work that captured Coleridge’s interest. Included is the following discussion from a footnote concerning the usefulness of cables made from the material found between the outer coat and the internal shell of the coconut:

The fibrous Integument that surrounds the Cocoa-nut Shell called *Coir*—Capt\(^b\) Thomas Forrest thus praises it—for *cables*—“Being elastic, it gives so much play to a ship that rides hard at Anchor, that with a cable of 120 fathoms, the Ships retire or give way, sometimes half their length, when opposed to a heavy sea—and instantly shoot ahead again: the coir-cable, after being fine-drawn, recovering its size and *spring*. Hempen Cables are strong & stubborn, and ships often founder that ride by them, because nothing stretches or gives way: the *Coir* yields and recovers.—“ (CN 3:4015)

The elasticity of coir cables allow an anchored ship on heavy seas to yield to an opposing current then shoot ahead again, simulating the active and passive bursts of the movement of the water-insect as well as the imagination.

These emblems, however, need not be read as metaphors. It is also possible to dismiss their imagery altogether. To do so is to abandon notions of “insect,” “cable,” “fulcrum,” and so on. This leaves the idea of *a balance between active and passive forces*. This is the core of the imagination as an idea. Its reappearance within the “Essays on Method” signals the close relation between imagination and method. More than that: the imagination as an idea opens a path of transit to the principles underlying all method and so connects the “Essays.” The imagination as an idea is the whole that Coleridge intends to convey. It shines through the various exemplifications that constitute the
“Essays” in the same way that the sentences of the intelligent man are connected by and lead toward the purpose of his speech.

§7.2 – “Poetry Realized in Nature”: Imagination in Science and Within the Natural World

An idea may be educed by dismissing the imagery put forward in the theories and hypotheses that articulate it. Liberated from the notions that obscure or distort it, the idea may be recognized in new and unanticipated situations. To bring forth an idea as such is often to expand its reference in an unexpected and surprising manner. This is one of the marks that separate an idea from a conception. An example is provided by Coleridge’s discussion of the idea of respiration in On the Constitution of Church and State. Possession of the conception ‘lung’ restricts the classes of living beings that respire to mammals, birds, and reptiles. By contrast, an apprehension of the idea of respiration as what Coleridge calls “the copula and mediator of the vascular and the nervous system” (CC&S 21) allows the naturalist to extend the range of the idea of respiration to also include the gills of the fish and the spiracula of the insects. Coleridge’s presentation of the imagination as itself an idea similarly expands the range of the imagination’s relevance from its origin in a theory of poetry, through its crucial use for scientific discovery, to an acknowledgement of its operation throughout the natural world.

The theory of imagination in Biographia Literaria is aimed primarily at the poet and the philosophical critic. In describing his hope for Biographia Literaria, Coleridge writes that were imagination properly desynonimized from fancy, then “[i]t would in its immediate effects furnish a torch of guidance to the philosophical critic; and ultimately to
the poet himself” (BL 1:85). Part of the innovation of the Biographia consists in Coleridge’s argument that poetry possesses an internal logic. Coleridge’s famous statement that poetry “has a logic of its own, as severe as that of science” (BL 1:9) is meant to delineate a space in which to explore the logic of poetry, but it does so through the implication that it differs from the logic of science. Because Coleridge is principally concerned with the application of his theory of imagination for the poet and the philosophic critic, Biographia Literaria remains silent on the relation of the theory of imagination to the logic of science. Indeed, the book does not consider the logic of science in a substantial way at all.

Unfortunately, many of Coleridge’s twentieth century “supporters” have taken this silence to invoke Coleridge as implicitly endorsing a view that sets the literary against the scientific. This was particularly true of one strand of the so-called New Criticism as represented by figures such as Allen Tate and John Crowe Ransom.

This crippling misapprehension has had a damaging effect on understanding of Coleridge’s thought, and through its appropriation, on major strands of twentieth-century criticism. The appearance of the imagination as an idea of a balance between active and passive forces in the first of the “Essays on Method” offers a substantial corrective. Having established in Biographia Literaria that poetry does possess a logic, Coleridge’s “Essays on Method” examine “the constructions of science and literature” (F 449) to isolate the methodological principles shared by both fields of inquiry. The imagination occupies a central place within all methodical work; indeed, method results from the work of the imagination. Coleridge’s exemplary imaginative figure in the “Essays on Method” is not William Wordsworth. It is Johannes Kepler, valorized because he “never
fails to present the living germ out of which the genuine method, as the inner form of the tree of science, springs up!” (F 485). The creative power of the poet is also required for the successful pursuit of science. Kepler’s writings – notable for the way they provide “an account of his modes of proceeding, and of the views under which [his ideas] first occurred to his mind” (F 485) and Davy’s experiments stand alongside Shakespeare’s plays and Wordsworth’s poems as privileged sites to examine its operation.

The “Essays on Method” do not just reveal the foundational role of imagination within scientific inquiry. Coleridge notes that such scientific inquiry suggests that nature is also imaginative. As Coleridge writes:

through the meditative observation of a Davy, a Woollaston, or a Hatchett … we find poetry, as it were, substantiated and realized in nature: yea, nature itself disclosed to us, Geminam istam naturam, qua fit et facit, et creat et creatur, as at once the poet and the poem! (F 471)

If natural science reveals the existence of poetry realized in nature, of nature as both a poet and a poem\(^67\), then the operation of the imagination and its products exist outside of the human mind.

To say that nature is disclosed to us as a poem implies that its products may be read in a similar manner. Coleridge reports that as a schoolboy he was required to show, of a proposed synonym for one of the words of Homer’s Iliad, “why it would not have answered the same purpose; and wherein consisted the peculiar fitness of the word in the original text” (BL 1:9). The same exercise may be undertaken with the products of nature. In place of a particular word as a part of a poem, consider the foot as part of a heron. As a proposed synonym, consider the foot of another bird, as for instance, a woodpecker. The

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\(^67\) Kant writes in the third Critique that “one says too little about nature and its capacity in organized products in one calls this an analogue of art: for in that case one conceives of the artist (a rational being) outside of it. Rather, it organizes itself” (246). Coleridge phrase employs the analogue of art but meets Kant’s objection by adding to it the notion that nature is also the poet.
large, sharply curved claws on the woodpecker would not lend themselves to wading; the curved claws would dig into wet sand or soft soil and so severely restrict ease of movement. The exceptionally long toes on the heron are peculiarly fit to spread the weight of the bigger bird over a large surface area and so increase the stability and ease of walking over soft surfaces. The meditative observations of the naturalist are rewarded in a similar manner to those of the critic. So, too, are those of the chemist. Davy’s chemical theories provide the reason why a particular element or compound is required for a given experiment.

On the other hand, to say that nature is disclosed to us through natural science as itself the poet is to state the imaginative forces responsible for the creation of its products inhere in the natural world. To present the imagination as an idea is not only to see the presence of a hitherto regulative idea in this “Fetisch & Talisman of all modern Philosophers” (CN 3:4066), but to dismiss restrictive notions such as ‘picture-thinking,’ ‘decaying sense,’ and even ‘component faculty of the human mind’ from earlier theories. The idea of imagination as a due mean or balance between active and passive forces may be observed to operate as a law within nature. Coleridge presents the growth of a plant as one such example:

Contemplate the Plants & the lower species of animal Life, [such] as Insects—then we may find at once an instance & an illustration of the poetic process. In them we find united the conquest of all the circumstances of place, soil, climate, element &c over the living power, & at the same time the victory of the living Power over these circumstances—every living object in nature exists as the reconciliation of contradictions, by the law of Balance.—The vital principle of the Plant can make itself manifest only by embodying itself in the materials that immediately surround it, and in the very elements, into which it may be decomposed, bears witness of its birth place & the conditions of its outward growth—On the other hand, it takes them up into itself, forces them into parts of its own Life, modifies & transmutes every power by which it is itself modified (LLects 1:447).
The idea may be observed in the writing or reading of a poem, in the methodical talk of the educated man, in the theorizing of the scientist, or even in the growth of a plant.

What is the relation between the law of balance, as manifested in the growth of a plant, and the idea of imagination, as manifested in the activity of Kepler’s theorizing? The two would be divided from the beginning as “objective” and “subjective” according to the metaphysical framework of *Biographia Literaria*. In the “Essays on Method,” idea and law are presented as correlative terms. As Coleridge more succinctly states in *On the Constitution of Church and State*: “That which, contemplated *objectively* (i.e. as existing *externally* to the mind), we call a law; the same contemplated *subjectively* (i.e. as existing in a subject or mind), is an idea” (*CC&S* 13). Yet, unlike in the *Biographia*, Coleridge here invokes the subjective-objective distinction merely as a useful heuristic that, “for some of my readers … may not, perhaps, be useless or unacceptable” (13) as an attempt to clarify the meaning of ‘idea.’ Method simply presupposes the union of several items to a common end or aim, and it makes no difference whether that end is provided by “disposition, as in the works of man” or whether it is provided by “convergence, as in the operations and products of nature” (*F* 497). The terms “subject” and “object” play no constitutive role in the comprehension or intelligibility of the relations that form the proper concern of method. The presentation of the imagination as an idea liberates the imagination from a confinement within the human mind to reveal, through the progressive and methodical work of science, its operation throughout the physical world.

§7.3 -- *Imagination, Inquiry, and Education*
The elaboration of Coleridge’s brief account of secondary imagination from *Biographia Literaria* – “it dissolves, diffuses, dissipates, in order to re-create” (*BL* 1:304) – leads directly to a general theory of inquiry. The first half of the statement describes the eduction of an idea, conceived as a form of logical inference, and understood by analogy to the process of chemical decomposition. The second half of the statement describes the process by which a selection of phenomena may be understood and so progressively arranged by the idea.

Coleridge’s 1816 “Theory of Life” provides a more expansive depiction of these two stages:

In the present instance, such an explanation would consist in the reduction of the idea of Life to its simplest and most comprehensive form or mode of action; that is, to some characteristic *instinct* or *tendency*, evident in all its manifestations, and involved in the idea itself. This assumed as existing in *kind*, it will be required to present an ascending series of corresponding phenomena as involved in, proceeding *from*, and so far therefore explained *by*, the supposition of its progressive intensity and of the gradual enlargement of its sphere…. In other words, the tendency having been given in *kind*, it is required to render the phenomena intelligible as its different degrees and modifications. (*SW&F* 1:504-05).

Coleridge’s “Theory of Life” is itself an extended example of this process. Coleridge first educes the idea of life as “*the principle of individuation*, or the power which unites a given *all* into a *whole* that is presupposed by all its parts” (*SW&F* 1:510). Refusing “the arbitrary division of all things into living and lifeless” (*SW&F* 1:491), the bulk of the article consists in Coleridge’s attempt to use the idea of life to render intelligible a progressive series of phenomena that proceeds from metals, to crystals, to geologic formations, through the vegetable and animal world, and, finally, to man.68

68 More extended treatments of Coleridge’s “Theory of Life” are provided by Levere and Wilson.
A more readily digested example of these two stages is provided by Isaac Newton’s *Principia Mathematica*. Newton first draws the idea of gravitation forth out of a series of observations as the statement that *for every two bodies in the universe, gravitational force is proportional to the product of their masses and inversely proportional to square of the distance between them*. Newton’s idea is presented as an idea. That is to say, its articulation is free from obscuring or distorting notions that might restrict its domain of operation to either the celestial or the terrestrial realm. Having brought forth his idea, Newton proceeds to render a series of phenomena – from Kepler’s three laws of planetary motion to the movement of the tides -- intelligible as its different degrees and modifications.

Coleridge’s “Essays on Method” follow the same methodological plan. The opening “Essay,” as we have seen, brings forward the imagination as the basis of method. It is reduced to its simplest and most comprehensive form or mode of action, that of a balance between active and passive forces. The following “Essays” consist in a series of exemplifications of method that are rendered intelligible by this idea.

Coleridge’s theory of inquiry thus accords with his 1818 critique of Schelling in the letter to J. H. Green. The letter provides the means for Coleridge to move beyond the metaphysical impasse exemplified by the unfinished deduction of the imagination in *Biographia Literaria*. Coleridge’s “correction,” as we have seen, states that an anticipation acquires necessity only when it is established as an idea. The proposed deduction of the imagination in *Biographia Literaria*, is, according to Coleridge’s later position, a false start. An idea may not be deduced: “it is *attributed*, never *derived*” (*F* 467). The idea of the imagination is suggested and brought forth by the instances of
methodical inquiry Coleridge presents in the “Essays on Method.” Its necessity as a principle is tied to what Coleridge calls “the practical character of an Idea” (CN 4:4940). That is to say, its validity results from successful elaboration and testing. The security of the imagination as a principle is established insofar as it successfully renders intelligible sites of methodological advance.

Many of Coleridge’s exemplifications of method have already been examined. They include the arrangement of items in John Hunter’s Museum of Natural History, the necessity of new ideas in biological classification, Kepler’s discovery of the laws of planetary motion, the progress of recent work on electricity as contrasted with work on magnetism, and Davy’s discovery of chemical elements by electrolytic decomposition. If Coleridge’s pursuit of the imagination as an idea leads to an open-ended, progressive theory of inquiry, then at what point should Coleridge’s exemplifications terminate? There is no natural point at which they end, in the sense in which a mathematical proof may be recognized to terminate.

It is significant that Coleridge’s idea of imagination provides the conditions of the discovery of knowledge rather than the closure required of a system. Trevor Levere fruitfully contrasts Coleridge’s achievement, in this respect, with Hegel’s system:

[Hegel] had a system. Coleridge, seeking a system, had a method. The distinction is fundamental. The more complete a system is, the more it describes and classifies knowledge, and the less it encourages new kinds of inquiry.

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69 Jerome Christensen similarly remarks upon the difference in style between Biographia Literaria and the “Essays on the Principles of Method.” While the Biographia follows the recognition of Wordsworth’s genius with the attempt to deduce the imagination, Christensen notes that the “Essays” follow the recognition of the methodical talk of the educated man with “exemplification and commentary” rather than with “an attempt at rigorous theoretical validation” (Blessed 247–48). Christensen, unfortunately, neither examines the centrality of the imagination to the “Essays” nor analyzes in any detail Coleridge’s presentation of and commentary upon several episodes from the history of science. He interprets two of Coleridge’s exemplifications and commentaries – the speeches from Shakespeare and Plato’s relation to the sophists – to perform a deconstructive reading around the figure of the chiasmus as the guiding trope of not just of the “Essays” but of the entire 1818 The Friend.
[Coleidge’s] inquiry, like that of science itself, was living, generative, and far from abstract. (221)

In this light, Coleridge’s inability to complete his Logosophia is not a failure. It is an impossibility, so long as he stays true to the idea of the imagination. 70

To avoid writing an interminable work, Coleridge’s “Essays on Method” turn back to the opening example to stress the relations of imagination and method to what Coleridge identifies as “that most weighty and concerning of all sciences, the science of EDUCATION” (F 493). This is the familiar move of the conversation poems. As instances of Coleridge’s invention of the “greater romantic lyric,” such a poem, in the words of M. H. Abrams, “rounds upon itself to end, where it began, at the outer scene, but with an altered mood and deepened understanding which is the result of the intervening meditation” (“Structure” 682). Because imagination and method are presupposed by, and involved in, advances in every individual field, there is a real sense in which they form the proper subject of education.

Coleridge uses the figures of “opening anew a well of springing water” and “filling, bucket by bucket, the leaden cistern” to frame his discussion of education in the “Essays” (F 472-73). As a large receptacle used primarily for the storage of rain water, a cistern can only be replenished by an external source, either via the off-hand, chance event of a rain shower or though the manual labor of pouring water into it, one bucket at a time. It can hold only that which “can be conveyed into it from without” (F 473). A well, on the other hand, replenishes itself; it is able to draw water forth from the seemingly inexhaustible source of the water table. The “leaden” quality of the cistern suggests a quality of oppressive heaviness, an inertia that strands in stark contrast to the

70 Another way to say this is to note that the drive to system is underwritten by the Odysseus allegory of inquiry, whereas the idea of the imagination is driven by the allegory of Columbus.
movement of a springing fountain, a movement that itself recalls the spring of the imagination as an idea. This analogy between the educative process and the operation of the imagination is not an accident. It is implied by the very etymology of the word. Both “education” and the chemical notion of an “educt” are derived from the Latin *educere* as a process of drawing forth.71

In a passage from “Theory of Life” that was also later used as the opening of one to one of his lectures on the history of philosophy, Coleridge observes:

> It is a wonderful property of the human mind, that when once a momentum has been given to it in a fresh direction, it pursues the new path with obstinate perseverance, in all conceivable bearings, to its utmost extremes. And by the startling consequences which arise out of these extremes, it is first awakened to its error, and either recalled to some former track, or receives some fresh impulse, which it follows with the same eagerness, and admits to the same monopoly. *(SW&F 1:495-96)*.

These sentences may be read as self-reflection on a characteristic property of the progress of Coleridge’s own mind. The immediate context of the remarks, however, pertains to larger, sometimes overlapping historical patterns. In the distinctly Baconian figurations Coleridge employs to present his examples, “a new light is struck” that “brilliantly opens” a “new path” that may soon become the “common road to all departments of knowledge” *(SW&F 1:498-99)*. Coleridge’s own work may be seen to comprise such a fresh direction, in the terms Coleridge suggests, by presenting the imagination as itself an idea.

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71 Coleridge’s extended comments on the etymology of education are found in *Logic* (9-10).
When a man desires ardently to know the truth, his first effort will be to imagine what that truth can be. He cannot prosecute his pursuit long without finding that imagination unbridled is sure to carry him off the track. Yet nevertheless, it remains true that there is, after all, nothing but imagination that can ever supply him with an inkling of the truth. He can stare stupidly at phenomena; but in the absence of imagination they will not connect themselves together in any rational way. Just as for Peter Bell a cowslip was nothing but a cowslip, so for thousands of men a falling apple was nothing but a falling apple; and to compare it to the moon would by them be deemed “fanciful.”

It is not too much to say that next after the passion to learn there is no quality so indispensable to the successful prosecution of science as imagination.

- Charles Sanders Peirce, notes from a projected History of Science (c. 1896)
§8 – Peirce on Abduction and Inquiry

Charles S. Peirce frequently recounts his discovery of logic at the age of 12 or 13 as perhaps the formative event of his life. As Peirce writes in a 1908 re-telling: “I remember picking up Whately’s Logic, in my elder brother’s room, and asking him what logic was. I next see myself stretched on his carpet devouring the book….From that day to this, logic has been my passion.” Peirce’s conception of logic is much broader than this quotation may indicate. Peirce states in an 1882 lecture given at the Johns Hopkins University that “the true and worthy idea” of logic is nothing less than the “method of methods” (W 4:378). This suggests one intersection of Peirce’s career with the concerns of Coleridge’s “Essays on the Principles of Method.” These shared concerns are considerably deepened once it is understood, as John Kaag argues, that the imagination is at the core of Peirce’s thought. This chapter explores the role of imagination in Peirce’s theory of inquiry, with the aim to show its close similarity to views put forward by Coleridge.

A consideration of these two thinkers provides an exemplary instance of Coleridge’s favorite maxim: extremes meet. Their respective theories of imagination and inquiry provide a common landing place for the founder of American pragmatism and one of the chief British romantic poets. Coleridge, born in rural Ottery St. Mary, excelled in the study of classics at Christ’s Hospital, a charity school in London he was sent to at the age of eight following the death of his father, a vicar in the local parish. Peirce, by

72 From MS 843, a draft of “A Neglected Argument for the Reality of God. As quoted in Brent (48).
73 As Max Fisch notes: “No comprehensive account or assessment of Peirce’s work in logic exists or is likely soon to exist, because every logician approaches him with a conception of logic narrower than his, and ignores or fails to comprehend the relevance of what transcends that narrower conception” (Peirce 390).
contrast, received an exemplary mathematical and scientific education at the hands of his father Benjamin, a Harvard professor widely considered at the time to be the most distinguished mathematician in the country. Coleridge’s impact on poetry and criticism stand unrivalled by his peers, as do Peirce’s achievements in symbolic logic, semiotics, and scientific methods.

Just as importantly, Coleridge and Peirce articulate their philosophies in contrary fashions. Coleridge diagnoses while exemplifying the main fault of his manner of explication as the fact that “my illustrations swallow up my thesis—I feel intensely the omnipresence of all in each, platonically speaking—or psychologically my brain-fibres, or the spiritual Light which abides in the brain marrow as visible Light appears to do in sundry rotten mackerel & other smashy matters, is of too general an affinity with all things” (CN 2:2372). The reader of Coleridge is thus called upon to reconstruct a backbone or structure—a thesis—capable of accommodating the variety and depth of his illustrations. Peirce, by contrast, identifies himself in 1911 as “a mere table of contents, so abstract, a very snarl of twine” (CP 6.183). What is missing in Peirce’s writings are often the very concrete illustrations that tend to dominate—and propel—Coleridge’s discourse. The reading of Peirce offered in this chapter thus looks forward to the following chapter, which shows how his writings on the scientific imagination—in conjunction with those of Coleridge—are exemplified in a text by the astronomer Johannes Kepler, the figure that both Peirce and Coleridge repeatedly single out as the exemplary imaginative scientist.

Peirce claims in a 1908 letter that “my work became self-controlled early in the year 1867, when I already had in mind the substance of my central achievement, the
paper of May 14 of that year, ‘On a New List of Categories.’” Accordingly, after situating Peirce and considering the extent of his reading of Coleridge, I turn to an analysis of Peirce’s “New List.” The following sections trace several later implications and developments from the “New List,” with the aim of showing the general consonance of Peirce and Coleridge’s work on a number of foundational, methodological issues relating to the interplay of imagination and inquiry.

§8.1 – Extremes Meet: From Coleridge to Peirce

The most immediate challenges facing the reader of Coleridge stem from both the extraordinary range of his work and its miscellaneous presentation through a variety of materials that include lay sermons, public lectures, an encyclopedia introduction, notebook entries, correspondence, and book marginalia. The same difficulties are more acutely felt in the case of Peirce. A sense of his intellectual range may be given by noting that while his first publication—“On the Chemical Theory of Interpenetration”—was in chemistry, the field in which he received his degree, his second publication was a co-authored article entitled “On Shakespearian Pronunciation.” The scope of Peirce’s interests are indicated by Max Fisch’s summary overview of the fields that Peirce contributed to over the course of his distinguished career:

Who is the most original and versatile intellect that the Americas have so far produced? The answer ‘Charles S. Peirce’ is uncontested, because any second would be so far behind as not to be worth nominating. Mathematician, astronomer, chemist, geodesist, surveyor, cartographer, metrologist, spectroscopist, engineer, inventor; psychologist, philologist, lexicographer, historian of science, economist, lifelong student of medicine; dramatist, actor, short story writer, phenomenologist, semiotician, logician, rhetorician and metaphysician. He was, for a few examples, the first modern-experimental

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74 From MS L 387, as quoted in Max Fisch (Peirce 253).
psychologist in the Americas, the first metrologist to use a wave-length of light as a unit of measure, the first known conceiver of the design and theory of an electric switching-circuit computer, and the founder of ‘the economy of research.’ He is the only system-building philosopher in the Americas who has been both competent and productive in logic, mathematics, and in a wide range of sciences. If he has had any equals in that respect in the entire history of philosophy, they do not number more than two. (“Introductory Note” 17)

It is important to remember that these fields are tied together for Peirce through a conception of logic as the method of methods. Peirce’s contributions to a particular field were always, additionally, a means to test, clarify, or refine his theory of methods. The only book length study Peirce published was the 1878 Photometric Researches, a monograph that contains both the first accurate determination of the disc-like shape of the Milky Way Galaxy and a photometric catalogue of the stars. With the exception of the 1883 Studies in Logic by Members of the Johns Hopkins University, a volume Peirce both edited and contributed to, the material Peirce published in his lifetime (running to nearly 10,000 pages) is dispersed through scientific reports, journal articles, book reviews, and dictionary definitions. His unpublished writings are even more voluminous. Excluding his correspondence, it is estimated that there is enough manuscript material to fill between 80 and 90 volumes of 500 printed pages each.75 The large majority of this writing remains unpublished.

Peirce also continues to be a problematic figure to place within contemporary humanistic scholarship. The two contexts in which his name is usually invoked – pragmatism and semiotics – are often imbued with assumptions that are either hostile to or incompatible with the main vectors of Peirce’s thought. In the first instance, critics with an interest in American philosophy tend to shy away from Peirce in favor of

75 An overview of the quantity and nature of Peirce’s writings, both published and unpublished, may be found in Keeler and Kloesel.
William James and John Dewey (as in the work of Richard Rorty) or Ralph Waldo Emerson (as in the work of Stanley Cavell). What soon comes into focus in individual cases are the fissures between the logical and scientific grounding of Peirce’s thought and the psychological and philosophical work of the other classical pragmatists. This is especially reflected in the case of Richard Rorty, whose study of Dewey and James leads him to assert that Peirce’s “contribution to pragmatism was merely to have given it a name, and to have stimulated James” (Consequences 161). To claim such a break in the history of pragmatism is, of course, nothing new. Peirce himself was well aware of such a discontinuity, attested by his infamous 1905 gesture of renaming his doctrine “pragmaticism,” a word he hoped was “ugly enough to be safe from kidnappers” (CP 5.414). Peirce’s thought provides parallel problems for literary theorists with an interest in semiotics. The major difficulty lies in the incompatibility of Ferdinand de Saussure’s dyadic conception of the linguistic sign with Peirce’s work on the inescapably triadic nature of representation. Peirce’s interest in signs, furthermore, does not privilege human language but considers it as one among many mediating or representational systems.

Peirce’s thought, as a result, has tended to remain isolated. This is reinforced by the long and ongoing work of editing the manuscripts and by the concomitant attempts to put together a coherent account of Peirce’s intellectual development that specifies the relations between the parts of what he intended to be a systematic philosophy. The matter is not helped by the esoteric vocabulary that Peirce himself employs (renaming his doctrine “pragmaticism,” a word he hoped was “ugly enough to be safe from kidnappers” (CP 5.414). Peirce’s thought provides parallel problems for literary theorists with an interest in semiotics. The major difficulty lies in the incompatibility of Ferdinand de Saussure’s dyadic conception of the linguistic sign with Peirce’s work on the inescapably triadic nature of representation. Peirce’s interest in signs, furthermore, does not privilege human language but considers it as one among many mediating or representational systems.

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universal categories Firstness, Secondness, and Thirdness constitutes one example among many), a fact that makes Peircean interventions or comparisons difficult to directly carry out and that often requires translating Peirce’s terminology into concepts that may not be entirely compatible with their original meaning in Peirce’s own work. Scholarship is only beginning to find ways to bring his theoretical writings to bear on contemporary methodological issues.77

This chapter does not attempt to present a chronological or developmental account of Peirce’s thought. Rather, its purpose is to show the broad compatibility of the accounts of inquiry advanced by Coleridge and Peirce, with special reference to the unique role the imagination plays within methodical work.

Lest it seem that the comparison between Coleridge and Peirce is only thematically and not also historically, motivated, it is important to note that Peirce read at least some of Coleridge’s writings on scientific method. Peirce refers on multiple occasions to Coleridge’s definition of science from the general introduction to the Encyclopedia Metropolitana.78 Peirce’s most expansive comment is made in a manuscript on the classification of the sciences (c. 1902), parts of which were later published in the Collected Papers:

The prevalent definition of a science, the definition of Coleridge, which influenced all Europe through the Encyclopaedia Metropolitana, that science is systematized knowledge, is an improvement upon a statement of Kant (Metaphysische Anfangsgruede der Naturwissenschaft: 1786): ‘Eine jede Lehre, wenn sie ein System, dass ist, ein nach Principien geordnetes Ganzes der Erkenntniss sein soll, heisst Wissenschaft.’ Yet it is to be noted that knowledge

77 An especially rich instance may be found in Eduardo Kohn’s 2013 How Forests Think, an application of Peirce’s semiotic to an anthropological description of the interactions between the Runa of Ecuador’s Amazonian rainforests and the non-human inhabitants that share the same eco-system.
78 In addition to the extended passage cited within the main text, see Peirce’s reviews of Bruhl’s The Philosophy of Auguste Comte (Nation 3:170) and Flint’s Philosophy as Scientia Scientiarum (Nation 3: 217).
may be systematic or ‘organized,’ without being organized by means of general
principles. Kant’s definition, however, is only a modification of the ancient view
that science is the knowledge of a thing through its causes,-- the comprehension
of it, as we might say,-- as being the only perfect knowledge of it. In short, the
Coleridgean definition is nothing but the last development of that sort of
philosophy that strives to draw knowledge out of the depths of the Ich-heit. (CP
7.54)

Three salient points may noticed from Peirce’s reflection on Coleridge in this passage. In
the first place, it attests to the major impact of Coleridge’s writings on science and
scientific method over the course of the nineteenth century. More than eighty years after
its original publication, Coleridge’s definition of science from the introduction to the
Encyclopedia Metropolitana was still the prevalent definition of the subject. This could
not but have had major significance to Peirce, given his deep-rooted concern with
science, its historical development, and its underlying principles of growth. In the second
place, it should be noted that Peirce does not fall for the trap of branding Coleridge a
plagiarist or mere passive transmitter of German Idealist tenets to a non-German
audience. Rather, he finds Coleridge’s appropriation of Kant as an improvement upon the
statement of the latter. Third, and perhaps most tellingly, Peirce’s understanding of
Coleridge’s notion of science does not match the position that Coleridge articulates in the
“Essays on Method,” but which was evinced in the Encyclopedia passage that Peirce
refers to. This is likely a result of the cuts and interpolations made to the manuscript
Coleridge submitted to the Encyclopedia editors. Coleridge himself was taken aback
when he first read the printed introduction. He complains in his correspondence from the
period that the printed version amounts to no more than “a compleat Huddle of
Paragraphs, without sub- or co-ordination” (CL 4:820), that it is “so bedeviled, so
interpolated and topsy-turvied, so utterly unlike my principles or from endless
contradictions any principle at all” (CL 4:825). In the “Essays on Method,” Coleridge’s rewritten version of the content of the encyclopedia introduction, Coleridge advances a different conception of science than is attributed to him by Peirce. For instance, Coleridge’s statement that Kepler “never fails to present the living germ out of which the genuine method, as the inner form of the tree of science, springs up” (F 485) does not define science as systematized knowledge. Rather, to speak of the “living germ” out of which the “tree of science” grows is to conceive of science along Peircean lines “as a living historic entity” (CP 1.44 c. 1896), one whose inner form is constituted, according to Coleridge, by its method. What this shows is that the historical connection between the two thinkers, while not non-existent, is really of secondary importance to the uncanny similarity in their reasoning and presuppositions about imagination and method. It is this latter connection that I aim to expose.79

§8.2 – Peirce’s “On a New List of Categories”

By his own repeated account, the seminal work in Peirce’s career is “On a New List of Categories,” first delivered to the American Academy of Arts and Sciences in 1867 and published in their 1868 Proceedings. He described the essay, at various points

79 There remains, however, an intriguing possibility that Peirce tracked Coleridge’s writings on tautegory. A copy of Coleridge’s Aids to Reflection containing Peirce’s bookplate is among the numerous books that Google scanned from Harvard’s Library and made available online. (The scanned edition of Peirce’s copy of Coleridge’s Aids to Reflection is available at the following url: https://play.google.com/store/books/details?id=gpUKAAAAAYAAJ&rdid=book-gpUKAAAAAYAAJ&rdot=1). A vertical line marks the passage where Coleridge identifies the tautegorical as a relation that expresses one and same subject in different ways, as contrasted with the allegorical as a relation that expresses a similarity between two different subjects. A handwritten note at the beginning of the volume refers to pp. 35-38 of Statesman’s Manual. In the first edition of that work, these are precisely the pages where Coleridge first introduces the notion of tautegory in his theorization of the symbol. Are the mark and the note from Peirce? It is difficult to tell. There is a stamp indicating a “due date” for the return of the book by December 2006, indicating that the volume is apparently in circulation and has been checked out at least once. It is unknown what other texts by Coleridge, if any, that Peirce may have owned or read.
in his career, as his “one contribution to philosophy” \( (CP \ 8.213) \), his “central achievement” (Fisch Peirce 253), and as one of his two “strongest philosophical works” \( (EP \ 1:1) \). The “New List” contains many of the central themes of Peirce’s thought. It contains a derivation of Peirce’s categories of Quality (later Firstness), Relation (Secondness), and Representation (Thirdness); it presents three kinds of argument (hypothesis, deduction, induction); it identifies the three kinds of signs (icon, index, and symbol) that play a formative role in Peirce’s semiotics; and it delineates the triadic architecture that Peirce employs throughout his career. The development of these themes in the sections that follow are considered primarily in connection to Peirce’s articulation of a theory of inquiry that foregrounds the imaginative character of method.

The “New List” itself is an inquiry into the conditions of intelligibility. Its purpose is to determine those conceptions that we must think with in order to think about anything at all. This statement indicates the demanding character of the enterprise. Not only must Peirce find a way to isolate those conceptions that always accompany our thinking – and therefore are difficult to isolate independently – but he must also find a way to think about these conceptions, which in turn are themselves implicated in whatever we might think about them.

The most immediate problem in reading the “New List,” however, lies in apprehending the proper scope and implication of the opening sentence of the article. Peirce opens by writing: “This paper is based on the theory already established, that the function of conceptions is to reduce the manifold of sensuous impressions to unity, and that the validity of a conception consists in the impossibility of reducing the content of

\[80\] A larger collection of similar assessments may be found in my “’Like a New Knowledge of Reality’: On Stevens and Peirce” 1111.
Peirce’s introductory sentence refers to Book I of the Transcendental Analytic in Kant’s *Critique of Pure Reason*. Namely, Peirce concisely summarizes the results of “On the logical use of the understanding in general,” the first section in Kant’s “Analytic of Concepts.” Kant there notes that the function of concepts is to bring unity to a selection of representations by ordering them under a common representation. This ordering takes the form of a determinative judgment, such that concepts may be thought of as what Kant calls “predicates of possible judgments” (B 94). While Peirce is quite explicit on what, exactly, the “New List” is based upon, critics have nevertheless extrapolated from the implied reference to Kant in the opening sentence to argue that Perice is performing his own transcendental deduction of the categories, and thereby continuing a larger Kantian project. Zachary Gartenberg has recently argued that Peirce’s “New List,” so far from performing a Kantian transcendental deduction of his categories, rejects one of the key underlying assumptions of the critical philosophy, namely, that the intelligibility of experience requires the constituting activity of a human subject.\textsuperscript{81} Peirce’s opening sentence that the “New List is “based upon” a particular theory established by Kant does not imply that the work itself is broadly Kantian in its aims or assumptions. Rather, what Peirce takes from Kant is, first, that the function of a conception is to reduce a manifold

\textsuperscript{81} As Gartenberg states: “Peirce is not constrained in his derivation by the subjective/objective distinction that underpins Kant’s transcendental deduction. Once one sees that Peirce is not concerned with justifying the correspondence between a list of subjective categories and an objective order of appearances (objects), it becomes clear that Peirce has adopted neither the idea of a Kantian transcendental deduction nor its particular methods. The crucial problematic that Kant sets up about the subjective conditions of thought having objective validity is not Peirce’s problematic. That question is absent from Peirce’s essay, indeed is rendered moot by it, insofar as Peirce’s essay replaces the epistemological framework according to which representation involves a putative agreement between subject and object with a theory that makes representation a matter of the interplay of relations obtaining in the world—capable of being thought by human beings but intelligible irrespective of that circumstance” (590).
to unity, and, second, that this unity always takes the form, through judgment, of a predication.

The archetypal figure of predication is a statement of the form ‘it is ____.’ The process of predication begins with the isolation of an “it” as a bearer of potential predicates. This requires what Peirce calls “an act of attention … which directs the mind to an object, in contradistinction to the power of thinking any predicate of that object” (W 2:49). Peirce glosses this notion of “it” using Aristotle’s definition of substance from the Categories as that which is neither predicated of a subject nor in a subject. The final step, the unification of the substance, is the work of the “is” or copula, identified by Peirce with the conception of being. Being has a function – to connect substance and predicate – but possesses no proper content itself. The process of predication opens by isolating a section of the manifold of impressions – an “it” – and closes when this substance is rendered intelligible by the application – through the “is” – of a predicate. As Peirce summarizes: “Thus substance and being are the beginning and end of all conception. Substance is inapplicable to a predicate, and being is equally so to a subject” (W 2:50).

In the illustration that Perice returns to several times within the “New List”:

If we say ‘The stove is black,’ the stove is the substance, from which its blackness has not been differentiated, and the is, while it leaves the substance just as it was seen, explains its confusedness, by the application to it of blackness as a predicate. (W 2:50).

In this example, a section of the manifold of sensuous impressions has apparently already been isolated and at least partially determined as a stove. This partly differentiated

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82 As Leroy Searle observes: “This distinction is fundamental for Peirce’s sense that a scrupulous attention to logic leads to radical metaphysical clarifications—in this instance, by pointing out, without polemic, that much traditional metaphysical speculation is without content because it begins and ends by attempting either to conceive of predicates as if they could be conceived to be substances, or of subjects, as if they could be the focus of discourse concerning being” (“Peirce” 656).
section of the manifold then serves in the example as the substance that is further determined through the application of the predicate, “black.” A substance (whether an “it” conceived as a section of an undifferentiated manifold of sensuous impressions or, more generally, as a somewhat indeterminate concept) is brought to unity (rendered intelligible, or more determinate) through the application of a predicate.

The process of predication is, in Peirce’s analysis, hypothetical. That is to say, the quality that further determines a substance is itself a hypothesis meant to unify the contents of consciousness. As Peirce writes in an 1866 draft entitled “On a Method of Searching for the Categories”: “a hypothesis is something assumed in order to reduce an otherwise incomprehensible datum to unity” (W 1:516). It is the process of hypothesis formation that Peirce later theorizes under the name of abduction or retroduction.

Peirce also highlights the open-ended nature of predication by noting that the process implies an “indefinite determinability” (W 2:50). Although Peirce explicitly writes “indefinite determinability of the predicate,” his immediately subsequent remarks make clear that this indefinite determinability applies to both the subject and the predicate. In the latter case, any predicate may serve as the subject in a new predication and so become more determined. For example, if one says that “the stove is heavy,” then the heaviness of the stove may be further determined through an indefinite number of measurements of increasing precision. The subject is also indefinitely determinable insofar as there are no constraints on the kinds of determination that may be made upon it. The stove, for instance, may be connected to any other object or quality, as one might further determine it by noting its color, temperature, weight, location within the room, and so on indefinitely.
Predication starts with the conception of substance and ends with the conception of being. It is precisely this basic structure that Peirce aims to elucidate, with respect to what it shows us about the basic way intelligibility unfolds in the world. Accordingly, in contrast to the Kantian project of the transcendental deduction of the categories in the *Critique of Pure Reason*, the purpose of the “New List” is not to determine the validity of the *subjective* conditions of *human* thought, but to analyze the conditions or structure of predication as the basic form of intelligibility *as it applies to being* – which Peirce, in “Questions Concerning Certain Faculties Claimed for Man” (1868), equates with *cognizability itself* – in general. Peirce’s categories are attempts to answer the question of what is required – that is, what background conceptions must we *think with*, or which, irrespective of distinctively human thought patterns, must be presupposed – in order for predication to occur. Peirce suggests that there are three such universal conceptions or categories intermediate between being and substance. They are (1) quality, or reference to a ground, (2) relation, or reference to a correlate, and (3) representation, or reference to an interpretant. Predication requires, *first*, the reference to a quality that will be joined to the substance; *second*, other substances or correlates that stand in relation to this designated quality; and *third*, a mediating representation that addresses the related quality to an interpreter.

Though explicitly modeled on prior philosophical work, Peirce’s categories are different in kind than both Aristotle’s list of substance plus nine types of predicate and Kant’s template derived from an enumeration of the possible forms of judgment. Unlike the categories of his philosophical predecessors, each one of Peirce’s categories is involved in every single predication.
Peirce contends that the first conception, quality, is not “given in the impression” but must be thought independently of the substance it is joined with. Considered alone, a quality may be thought of as a “pure species” or “pure abstraction” that is then hypothetically applied to a substance. Returning to his proposition that “the stove is black,” Peirce writes:

Here the conception of this stove is the more immediate, that of black the more mediate, which latter, to be predicated of the former, must be discriminated from it and considered in itself, not as applied to an object, but simply as embodying a quality, blackness. (W 2:52)

Considered without reference to anything else, as a “pure abstraction,” the quality functions as the “ground” of a predication. The category of quality designates the respect according to which the manifold will be rendered intelligible. Intelligibility, in other words, is always intelligibility in some respect.

A correlate, reference to which constitutes Peirce’s second category, reveals a relation between two items. To return to the example of the stove, the quality of “blackness” becomes a correlate when it is considered not by itself but as a term that links more than one substance. A black jacket is a correlate to a black pair of pants by virtue of blackness thus considered as a relational term. As Peirce writes in “On a Method of Searching for the Categories”: “This conception is so easy to seize that no elucidation of it is needed” (W 1:522). Intelligibility, that is to say, also always requires a network of substances that stand in relation to one another.

The most important – and difficult – of Peirce’s categories is his notion of representation, or reference to an interpretant. Peirce’s category of representation is an irreducibly triadic relation and therefore not equivalent to commonplace notions of the concept as signified often found in dyadic conceptions of the linguistic sign. Peirce is
careful to foreground this difference, even to the point of naming the mediating representation after an analogy with a foreign-language interpreter in order to clarify his notion. Peirce gives three examples of an interpretant in the “New List” before defining the term. I shall consider the final example and the definition first, because the situation from the last example provides the basis for the name ‘interpretant.’ As Peirce writes:

[S]uppose we look out the word *homme* in a French dictionary; we shall find opposite to it the word *man*, which, so placed, represents *homme* as representing the same two-legged creature which *man* itself represents. By a further accumulation of instances, it would be found that every comparison requires, besides the related thing, the ground, and the correlate, also a mediating representation which represents the relate to be a representation of the same correlate which this mediating representation itself represents. Such a mediating representation may be termed an interpretant, because it fulfills the office of an interpreter, who says that a foreigner says the same thing which he himself says. (*W* 2:53-54).

Though Peirce does not specify any background information, it is helpful to think of this example as presuming an English speaker who does not know the meaning of the French *homme*. The speaker looks the word up in a French-English dictionary and finds next to it the word *man*. The familiar English word is recognized as representing a two-legged creature. Placed side-by-side in the dictionary, *man* represents *homme* to be a representation of the same two-legged creature that *man* itself is known to represent. The English word *interprets* or translates the French word. In the terms of Peirce’s metaphor, *man* fulfills the office of the interpreter because it says that a foreigner (*homme*) says the same thing (two-legged creature) which *man* itself says. The two words stand in relation to one another as possessing the same imputed significance. Peirce calls this type of sign a symbol.

The example shows how all three of Peirce’s categories are required for intelligibility. The French *homme*, when it is not understood, functions as a substance, an
“it,” that stands in need of determination through predication: *homme* is ______. It is only rendered intelligible in a certain *ground* or respect (as a French word designating a two-legged creature) after it is *interpreted* or translated by the English *man* as standing for the same *correlate* or relational term (two-legged creature) that *man* itself represents. Each of the three categories serves a unique role within predication. Quality identifies a ground for predication. Reference to a correlate designates a relational term. Reference to an interpretant addresses this relation to an interpreter or mind. In so doing, the interpretant represents the relate as an instantiation of the same correlating relation that the mediating representation itself represents.

Peirce’s first example of an interpretant as mediating representation examines the requirements involved in a comparison of the letters “p” and “b”:

> Suppose we wish to compare the letters p and b. We may imagine one of them to be turned over on the line of writing as an axis, then laid upon the other, and finally to become transparent so that the other can be seen through it. In this way we shall form a new image which mediates between the images of the two letters, inasmuch as it represents one of them to be (when turned over) the likeness of the other. (W 2:53)

The comparison of the two letters requires a third term, a new invertible image. The mediating representation – the invertible image – represents the letter “p” to be a *likeness* of the same letter “b” that the mediating image is itself a likeness of. It fulfills the role of an interpreter in that it says that the letter “p” says the same thing (*I am a likeness of the shape of the letter “b”*) that the invertible image itself says. Peirce calls this type of sign a *likeness* or *icon*.

The final example I will consider – what is actually Peirce’s second example of an interpretant – identifies a further type of sign through the relation between a murderer and a murdered person:
Again, suppose we think of a murderer as being in relation to a murdered person; in this case we conceive the act of the murder, and in this conception it is represented that corresponding to every murderer (as well as to every murder) there is a murdered person; and thus we resort again to a mediating representation which represents the relate as standing for a correlate with which the mediating representation is itself in relation. \(W\ 2:53\)

The relation between the murderer and the murdered person is neither one of likeness nor imputation but of indication: a murdered person neither resembles nor conventionally designates a murderer so much as it points to the existence of one. The murderer and murdered person are related to one another through “a correspondence in fact” \(W\ 2:56\).

They are brought together by a representation or conception of the act of the murder. This conception represents the murderer as standing for a murdered person with which the conception is itself in relation. Peirce calls this type of sign an index.

Peirce additionally uses his categories to determine a list of “supposable objects” or modes of being admissible in a theory of reality that is answerable to the conceptions employed in the process of predication. There are three such “supposable objects,” defined by Peirce as:

- Quale—that which refers to a ground
- Relate— that which refers to ground and correlate
- Representamen— that which refers to ground, correlate, and interpretant. \(W\ 2:55\)

These are not all objects in the sense of tangible things that Samuel Johnson might kick. For Peirce, any theory of reality must admit of (1) qualities such as blackness, courage, or fragility; (2) relates, or objects conceived as bearers of qualities and that may understood in concordance with or as opposed to other relates; (3) representations, including items such as laws of nature, habits, and social movements that have the mode of being of a
So Peirce here radically extends and reconceives the notion of ‘object’ as it is traditionally understood. The “New List” makes frequent use of a procedure borrowed from the scholastics – precision – that reveals a hierarchy of conceptual dependency. Peirce describes the operation as the ability to form “a definite conception or supposition of one part of an object, without any supposition of the other” (W 2:50). Precision marks a distinction of intelligibility: if one part may be prescinded from a second part, then the first part may be rendered intelligible without the second part. Peirce introduces the process alongside two others, discrimination and dissociation. Each process results in a type of mental separation. Discrimination separates two objects on the basis of their meaning, precision marks a separation based on whether the intelligibility of one object depends on that of the other, while dissociation separates two objects on the basis of the ability to visualize one without simultaneously visualizing the other. In Peirce’s illustrations:

I can discriminate red from blue, space from color, and color from space, but not red from color. I can prescind red from blue, and space from color (as is manifest from the fact that I actually believe there is an uncolored space between my face and the wall); but I cannot prescind color from space, nor red from color. I can

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83 The reality of representative relation, of certain objects that share the mode of being of a sign, itself marks an important connection between Peirce and Coleridge. A Coleridgean idea is a mediating representation that shares this modality. Like Coleridge, Peirce argues that the reality of ideas is confirmed through their elaboration and testing. In Peirce’s words, we know that general principles are operative in nature because they “furnish a safe basis for prediction” (EP 2:182).

84 In Leroy Searle’s summary: “The power of this elegant system is that it allows us to handle, without paradox or confusion, both the process of conceptualization and the modal differences that contribute to any possible theory of reality that we might formulate. ‘Black,’ for example, does not belong to the category of entities or objects—nor does it require any theory of primary and secondary qualities, since they too are subject to exactly the same condition of conceptualization Peirce has already accounted for. Objects, moreover, are not characterized directly as things, but as the substrate for qualities susceptible of correlation and comparison. What counts as an ‘object,’ that is to say, is the outcome of a process of conceptualization and differentiation: we have to learn, for example, to tell the difference between a dog and a horse, or a dog and a wolf, or the moon and the sun, and so on. But the category of the interpretant, easily misunderstood as if it were either a conventional name or an arbitrary collocation of properties, is arguably the pivotal constituent of a theory of reality, since this is the category for regularities of all kinds that are neither identifiable with qualities or with objects, but are inescapably relational” (“Inference” 1024).
dissociate red from blue, but not space from color, color from space, nor red from color. (W 2:51)

These illustrations are meant to show, first, that precision achieves an intermediate degree of separation among the three operations, and, second, that precision is not always a reciprocal process. In Peirce’s example, space may be prescinded from color but color cannot be prescinded from space. It is this non-reciprocal feature of the results of precision – the ability of the operation to confirm a hierarchical dependence of intelligibility – that allows it to play a central role in both the derivation of the categories and in Peirce’s unfolding of the triadic structure for representation.

Recall that the predication begins with the conception of substance and ends with the conception of being, and that the categories are those conceptions that necessarily mediate between being and substance in a predication. These intermediate conceptions are intended to be hierarchically related. As Peirce notes: “one such conception may unite the manifold of sense and yet another may be required to unite the conception and the manifold to which it is applied; and so on” (W 2:49). The non-reciprocal feature of precision is adapted to reveal such conceptual dependencies. Any intermediate category must satisfy the following conditions: (1) it cannot be prescinded from being, but being may be prescinded from it and (2) substance cannot be prescinded from the intermediate category, but the intermediate category may be prescinded from substance. Precision functions as a check to ensure that the categories are thus intermediate and it provides a way to order the conceptual dependency amongst the intermediate categories. Precision does not guarantee that these are the only such universal conceptions nor does it suggest the categories themselves; it is merely an operation used to confirm that the categories are
intermediate between being and substance and that they may be arranged in order of conceptual dependency.

The “New List” additionally uses precision to delineate a self-perpetuating triadic structure that Peirce employs throughout his career. This structure is presented through Peirce’s refinement of the triad of the intermediate categories of quality, relation, and representation by means of the application of precision. While qualities only admit of one type or variety, relations admit of two varieties, depending on whether or not qualities may be prescinded from a reference to a correlate. As Peirce writes:

A quality may have a special determination which prevents its being prescinded from reference to a correlate. Hence there are two kinds of relation.

1st. That of relates whose reference to a ground is a prescindible or internal quality.

2d. That of relates whose reference to a ground is an unprescindible or relative quality. (W 2:55)

A black jacket as a correlate of black pants provides an example of relates whose reference to a ground is an internal or prescindible quality. The shape of the letter “b” as a correlate of the shape of the letter “p” is another example of such a relation. On the other hand, a murderer as a correlate for a murdered person constitutes an example of a relative quality. The category of representation is similarly divided through the use of precision to reveal three kinds of references to an interpretant.

1st. Those whose relation to their objects is a mere community in some quality, and these representations may be termed Likenesses.

2d. Those whose relation to their objects consists in a correspondence in fact, and these may be termed Indices or Signs.

3d. Those the ground of whose relation to their objects is an imputed character, which are the same as general signs, and these may be termed Symbols. (W 2:56)
Just as the second category in the original triad – relation – may be subdivided into two parts, so too is the third category in the triad – representation – subdivided into three parts. Depicted graphically, the structure of the categories may be rendered as follows:

![Diagram of Peirce's categories and triadic structure.](image)

Abstracted from the particular content of this example, it is possible to see that division of the third term in an original triad itself yields a new triad. The triad formed in this subdivision will, in turn, unfold the same structure, forming a third triad, and so on.

Though Peirce neither graphically displays nor signals this move as such, the remaining pages of the essay outline a structure that follows from further iterations of the original triad of quality, relation, and representation. Symbols, for example, divide into the following three kinds or types:

1: Symbols which directly determine only their grounds or imputed qualities, and thus are but sums of marks or terms.
2: Symbols which also independently determine their objects by means of other term or terms, and thus, expressing their own objective validity, become capable of truth or falsehood, that is, are propositions.
3: Symbols which also independently determine their *interpretants*, and thus the minds to which they appeal, by premising a proposition or propositions which such a mind is to admit. These are *arguments*. (*W* 2:57).

The next iteration of the triad divides the third term -- arguments -- into three kinds: hypotheses, induction, and deduction. The triadic architecture of the “New List” may be rendered by the following diagram:

![Triadic Architecture Diagram](image)

**Figure 6. The Triadic Architecture of Peirce’s "New List."**

While Peirce’s understanding of these various triads undergoes considerable development, the basic triadic structure remains constant. For example, Peirce’s triad of arguments should allow for two aspects of induction, and three of deduction. His 1908 “Neglected Argument” switches the order of induction and deduction, but maintains the overall structure: “Deduction has two parts” while “[induction] has three parts” (*EP* 2:441-42). Similar instantiations of this structure abound in Peirce’s writings. The self-replicating nature of a triadic relation is perhaps the most important formal component in Peirce’s thought when analyzed, in his terms, as a table of contents. Several implications
and later developments of themes from Peirce’s “New List” are examined in the following sections with reference to their similarity to positions articulated by Coleridge.

§8.3 – The Rejection of Intuition

Peirce’s “New List” presents a sign as a triadic relation. It refers to a ground, a correlate, and an interpretant, where the interpretant is also understood as a sign also possessing the same three-part structure. As Peirce repeats the definition in an essay from 1897:

A sign, or representamen, is something which stands to somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates I call the interpretant of the first sign. The sign stands for something, its object. It stands for that object, not in all respects, but in reference to a sort of idea, which I have sometimes called the ground of the representamen. (CP 2.228)

The chief difference between Peirce’s account of representation and commonplace accounts (say, Saussure’s account of the linguistic sign as a dyadic relation linking a sound-pattern or signifier to a concept or signified) is that Peirce’s account includes the address to an interpreter as a built-in feature of representation. Instead of treating language as a system of differences without positive terms considered apart from the people who employ those signs, Peirce recognizes that a sign always addresses someone in some respect: “A thing cannot stand for something without standing to something for something” (W 1:466). Sign use is always already mediated; the interpretant refers to the object through the representamen. One can identify the interpretant with the meaning of a sign, but only with the caveat that this meaning is necessarily neither fixed nor final.

Peirce often refers to the sign as an irreducibly triadic relation. This statement depends upon a classification of relations based on the number of terms they employ.
One way to think of such a classification is according to the number of blank spaces formed by a sentence centered around that relation. “Blackness” is a monadic relation insofar as it is possible to construct a sentence with one such blank: “___ is black.” Causation provides an example of a dyadic relation: “___ causes ___.,” Giving, on the other hand, is an example of a triadic relation: “____ gives ___ to ___.” To state that a relation is irreducibly triadic is to claim that it cannot be reconstructed out of a combination of dyadic relations. In Peirce’s analysis of the relation designated by the term “giving”:

The fact that A presents B with a gift C, is a triple-relation, and as such cannot possibly be resolved into any combination of dual relations… [W]e cannot built up the fact that A presents C to B by an aggregate of dual relations between A and B, B and C, and C and A. A may enrich B, B may receive C, and A may part with C, and yet A need not necessarily give C to B. For that, it would be necessary that these three dual relations should not only coexist, but be welded into one fact. Thus, we see that a triad cannot be analyzed into dyads” (W 6:174-75).

Perhaps Peirce’s most important contribution to logic (one that has still generally not been domesticated) involves a two-sided theorem that states, first, that it is impossible to construct a triadic relation solely out of dyadic and monadic relations, and second, that any relation higher than a triadic relation can be decomposed into some combination of triadic, dyadic, and monadic relations. However, it is by no means necessary to descend to a rigorous level of symbolic logic to capture the motivation behind Peirce’s claim. Likening a dyadic relation to a chain, or better yet to a straight road, Peirce’s theorem captures the intuition that “a road with only three-way forkings may have any number of termini, but no number of straight roads put end on end will give more than two termini” (W 6:175).

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85 See Robert Burch’s *A Peircean Reduction Thesis*. 
220
A key result of this theorem is that interpretation, as a triadic relation, is irreducible to a series of dyadic relations, such as causal connections or some sort of stimulus-response model. In terms of the example of giving, Peirce notes that it “is a transfer of the right of property. Now right is a matter of law, and law is a matter of thought and meaning” (CP 1.345). Triadic relations necessarily include a mediating element, something from the realm of law, thought, or meaning. Peirce’s definition of the sign recognizes this mediating element as the interpretant. According to Peirce’s results, any conception of language which treats the sign as a dyadic relation must either be internally incoherent or implicitly presume a mediating element somewhere in the background.

Peirce’s definition of “sign” for J. M. Baldwin’s 1902 Dictionary of Philosophy and Psychology – “Anything which determines something else (its interpretant) to refer to an object to which itself refers (its object) in the same way, the interpretant becoming in turn a sign, and so on ad infinitum” (CP 2.303) – repeats the same triadic structure while drawing particular notice to how the interpretant is itself a sign possessing this same triadic structure. This is an implication of the “New List,” whose definition of a representation includes a reference to the interpretant understood as a second representation. This second representation or sign, as a triadic relation, necessarily involves another interpretant, which as itself a sign will beget a third interpretant, and so on.86 The “and so on” is in play in the other direction as well. The object of a sign

86 This is the aspect of Peirce that Derrida picks up in Of Grammatology: “Peirce goes very far in the direction that I have called the de-construction of the transcendent signified, which, at one time or another, would place a reassuring end to the reference from sign to sign. I have identified logocentrism and the metaphysics of presence as the exigent, powerful, systematic, and irrepressible desire for such a signified” (37). As Sheriff notes in The Fate of Meaning, part of the oddness of Derrida’s argument, not just in Grammatology but over the course of his prolific career, is the refusal to move away from the dyadic
relation is never grasped by itself but only through its representation, and the sign that represents the object is always itself the interpretant of a prior sign relation. Implicit in Peirce’s definition of a sign is the notion that our thoughts admit neither of a final interpretation on the one hand nor of a first object on the other.

This implication of Peirce’s triadic definition of representation from the “New List” is developed in three articles published in the *Journal of Speculative Philosophy* in 1868-69. The articles attempt to demonstrate, among other things, that cognition is a continuous, semiotic process, that thinking unfolds only through the mediation of signs. The import of the first article – “Questions Concerning Certain Faculties Claimed for Man” – is to show that this hypothesis is sufficient to account for observed phenomena relating to the mind without the invocation of purportedly direct, reflexive acts of mind. The article proceeds to deny a series of these purported faculties (such as intuition, unmediated self-consciousness, and introspection) as unnecessary and unprovable assumptions.

Peirce opens “Questions” by recasting the notion of intuition into the terminology of logical inference: “[i]ntuition here will be nearly the same as ‘premise not itself a conclusion’” (W 2:193). The first “question” Peirce addresses is whether, for a given cognition, we have an intuitive or unmediated power that could determine if that cognition is intuitive. Peirce observes that:

There is no evidence that we have this faculty, except that we seem to feel that we have it. But the weight of that testimony depends entirely on our being supposed to have the power of distinguishing in this feeling whether the feeling be the result of education, old associations, etc., or whether it is an intuitive cognition; or, in other words, it depends on presupposing the very matter testified to. (W 2:194)

conception of a sign found in Husserl and in Saussure, even as he recognizes both its radical insufficiency and the possibility of an alternative model in Peirce (32-72).
If one of our cognitions was a premise not itself a conclusion, this fact could only be known through other, mediate cognitions. After denying that we possess such an intuitive distinguishing power, Peirce considers whether we have an intuitive self-consciousness. Per the first denial, immediate knowledge or recognition of an intuitive self-consciousness cannot be intuitively distinguished from a mediated conception of self-consciousness. Because the status of intuitive self-consciousness is not itself intuitively certain, it cannot be simply assumed. It may be introduced as a hypothesis, but only if its adoption is required to explain a selection of facts that cannot otherwise be understood. Arguing from observations of the behavior of young children, Peirce shows that such a faculty is not necessary to account for the recognition of a private self because it is possible to mediately infer the existence of the self as a locus of ignorance and error. In Peirce’s account:

A child hears it said that the stove is hot. But it is not, he says; and, indeed, that central body is not touching it, and only what that touches is hot or cold. But he touches it, and finds the testimony confirmed in a striking way. Thus, he becomes aware of ignorance, and it is necessary to suppose a self in which this ignorance can inhere. So testimony gives the first dawning of self-consciousness. (W 2:203)

Because self-consciousness can be shown to arise from a series of inferences, there is no reason to assume the existence of an intuitive self-consciousness. Peirce proceeds in this vein throughout the rest of “Questions,” ultimately denying the necessity of introducing powers of intuition, of thinking without signs, and of conceiving the absolutely inconceivable.

Peirce’s rejection of unmediated intuition in favor of representational relation has a significant bearing on understanding Coleridge’s progression from *Biographia*...

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87 Colapietro provides a constructive and developmental account of Peirce’s notion of a semiotic self in *Peirce’s Approach to the Self*, drawing attention to how a basis is provided for autonomy and self-control in Peirce’s later writings.
literaria to the “Essays on Method.” As we have seen in §2, it is precisely the notion of the self as intellectual intuition that causes the impasse in Coleridge’s deduction of the imagination. The letter from a friend in chapter 13 of the Biographia marks the recognition of the insufficiency of assuming intellectual intuition as the basis for the deduction of a power that may only be established mediately through experimentation. Coleridge’s increasing hesitancy over the status of intellectual intuition is evident even as he re-describes the notion in the lead-up to the abandoned deduction in chapter 12. One can see the project begin to unravel as Coleridge casts the notion of self as intuition in a hypothetical manner that strongly suggests doubt as to its validity:

[H]erein consists the essence of a spirit, that it is self-representative. If therefore this be the one only immediate truth, in the certainty of which the reality of our collected knowledge is grounded, it must follow that the spirit in all the objects which it views, views only itself. If this could be proved, the immediate reality of all intuitive knowledge would be assured. (BL 1:278)

The following comment from Coleridge’s own marginalia to Schelling’s System of Transcendental Idealism performs Peirce’s observation that the only evidence we possess for an intuitive faculty is the mere feeling that we possess it. As Coleridge writes: “When I sink into myself, I have ever possessed intuitions like these; but when I read Fichte or Schelling, & of course judge by my discursive Intellect, then I am puzzled” (CM 4:458). Coleridge claims that he can sink into himself and so feel as though he does possess such intuitions. Yet the judgment of these intuitions by his discursive intellect does not confirm them to be intuitions but only results in puzzlement over his felt surety that they were intuitions.

Coleridge’s “Essays on Method” are not grounded on a notion of the self as intellectual intuition. They instead base a theory of inquiry on an analysis of
representative relation: “RELATIONS of objects are the prime materials of Method, and … the contemplation of relations is the indispensable condition of thinking methodically” (F 458). The move from a philosophy grounded on immediate intuition – the assumption that stands behind Biographia Literaria – to a theory of inquiry predicated upon the discovery, analysis, and contemplation of relations – the assumption underlying the “Essays on Method” – leaves Coleridge in 1818 in the position from which Peirce’s philosophy takes shape fifty years later.

§8.4 – Interpretants, Tautegory, and the Growth of Knowledge

Coleridge’s turn to mediation in the “Essays on Method” leads him to distinguish two kinds of representative relation: ideas, as instances of tautegorical relations that express one and the same subject in different ways, and conceptions, as instances of allegorical relations that express a resemblance or similarity between two different subjects. The crucial aspect of Coleridge’s turn to mediation is that he does not restrict the process to concepts. As we have seen, conceptions only suggest one formal means of instantiating the relational function of an idea. An idea as such is not limited to any particular formal instantiation, but serves to guide or account for a variety of different conceptions.

An indication of the power of the model of mediation that Peirce advances in the “New List” is that it effortlessly handles both types of mediating relation that Coleridge distinguishes. This flexibility is built into Peirce’s definition of the interpretant, which does not distinguish between types of mediating representation. Whether an interpretant is an idea or a concept, that is to say, depends only on the chosen correlate, relate, and
ground. This may be seen by recasting Coleridge’s example of the naturalist studying respiration into the terms of Peirce’s “New List.”

Suppose the naturalist compared the lungs of a monkey with the lungs of a man. The comparison results in the formation of a general conception of a lung as designating the qualities shared by the lungs of both species. As a Peircean interpretant, this conception mediates experience of the lungs: it shows that a relate, or foreigner (the lung of the monkey) says the same thing (that it resembles the lung of a man in respect of a list of qualities) that the conception itself says. The concept as interpretant mediates the naturalist’s experience of new items insofar as they satisfy (or fail to satisfy) the various criteria of resembles that it specifies.

The situation changes, though only slightly, if the lungs of a bird are added a third item in the comparison. There are particular qualities possessed by the avian lung that are not possessed by the mammalian lung. In the lung of the bird, for example, air sacs allow for the unidirectional flow of air, whereas the flow of air is bidirectional the lungs of the man and the monkey. The interpretant that mediates the three examples – our general conception of a lung – changes. It becomes simpler as the list of shared formal qualities shrinks. The earlier interpretant, if it found useful, may be fixed to designate a class such as ‘mammalian lungs.’ Furthermore, the qualities that are peculiar to avian lungs may be isolated as the prompts for new inquiry. The naturalist can inquire, for example, how unidirectional airflow in the avian lung is especially adapted to a variety of behaviors found principally in birds. The work of comparison thus does not merely result in the mechanical formation of conceptions: the qualities that do not find their way into general conceptions are often themselves prompts for more specialized inquiry.
If the gill of a fish is added as a fourth object, then the resulting comparison changes in a more significant respect. The formal qualities of a gill do not resemble those of a lung; as Coleridge emphasizes, the gill represents a different formal means than the lung of instantiating the same idea of respiration. That idea of respiration – formed, according to Coleridge, by discarding or dismissing similar formal features to uncover a shared function of gaseous exchange – is handled by Peirce’s model in the same general way. The idea of respiration can also function as a Pericean interpretant insofar as it represents the foreigner (the gill) to say the same thing (that it stands to the lung as an instance of respiration) that the idea itself says.

The form taken by the interpretant as mediating device thus depends both on the particular objects compared and on the qualities isolated for examination. For example, the experience of the gill of a mushroom, when placed in relation to the lung of a mammal, may be mediated by a Coleridgean idea of respiration. If the same gill of a mushroom is considered alongside the gill of a trout, the experience of the mushroom may be mediated by the general concept of a gill. The interpretant can represent both ideas (tautegorical relations) and concepts (allegorical relations). Peirce’s notion of representation does not privilege one kind of representation; rather, it provides a model that foregrounds the minimal conditions necessary for mediation in general.

For Peirce, logic, as equated with semiotic, marks the study of “what must be the characters of all signs used by a ‘scientific intelligence,’ that is to say, by an intelligence capable of learning by experience” (CP 2.227). In an 1894 article entitled “What is a Sign?” Peirce draws particular attention to how this learning occurs primarily through the type of representation he designates as symbolic:
Symbols grow. They come into being by development out of other signs, particularly from likenesses or from mixed signs partaking of the nature of likenesses and symbols. We think only in signs. These mental signs are of mixed nature; the symbol-parts of them are called concepts. If a man makes a new symbol, it is by thoughts involving concepts. So it is only out of symbols that a new symbol can grow. *Omne symbolum de symbolo*. A symbol, once in being, spreads among the peoples. In use and in experience, its meaning grows. Such words as *force, law, wealth, marriage*, bear for us very different meanings from those they bore to our barbarous ancestors. They symbol may, with Emerson’s sphinx, say to man, Of thine eye I am eyebeam. (*EP* 2:10).

The analysis involving respiration shows some of the various ways in which symbols grow and new symbols arise.

A conception is a symbol that grows at a relatively slow pace through the addition or subtraction of features. New features are added or old features are stripped away one at a time as experience accumulates. As we have seen, the general conception of a lung changes when consideration of specimens expands beyond mammalian lungs to include those of birds. A new symbol – avian lung – can be formed out of the conceptual activity related above. This new symbol can itself grow as its relations to other features unique to birds are further determined.

An idea is a symbol that grows at rapid pace. It does not grow through the addition or subtraction of qualities determined as likenesses. Rather, ideas grow by means of analogy and synecdoche. Whereas a conception as symbol may be used merely to confirm or deny that a new object may be subsumed underneath it, an idea mediates a new object through an expansion of the range of application of that idea. The conceptions of a gill and a lung are related to one another by analogy as different manifestations of the same end, or idea of respiration. To render intelligible a new object – the spiracle of an insect – by means of that same idea requires extending the range of its application by noting how the spiracle stands in an analogical relation with its correlates (the lung of a
mammal and the gill of a fish) to the idea of respiration (their interpretant). The symbol as idea thus grows leaps and bounds faster than the symbol as concept.

By virtue of its flexibility, Peirce’s model of mediation both handles and fails to adequately distinguish between the two types of mediating representation that Coleridge draws attention to. Peirce later categorizes representations in increasingly complex ways using a variety of triadic permutations to yield classificatory schemes of 10 and later 66 different types of signs. Coleridge’s simple contrast of tautegorical ideas and allegorical conceptions, however, itself captures a salient point in Peirce’s notion of logic as the methods of methods, namely, that “the higher places in science” (W 4:380) are reserved for those who relate two domains analogically (and therefore tautegorically) by adapting the methods of investigation in one field of inquiry to another field.

§8.5 – Abduction, Imagination, and the Foundation of Inquiry

Peirce’s “New List” characterizes three forms of argument – hypothesis, induction, and deduction – as distinguishable from one another according to whether their premises form a likeness, index, or symbol of their respective conclusions. It is the first form of argument – hypothesis – that Peirce develops into a notion of abduction (or retroduction) to describe the initial stage of methodical inquiry. A succinct statement of the purpose of abduction in relation to induction and deduction is provided in Peirce’s 1903 lectures on pragmatism:

Abduction is the process of forming an explanatory hypothesis. It is the only logical operation which introduces any new idea; for induction does nothing but determine a value and deduction merely evolves the necessary consequences of a pure hypothesis. Deduction proves that something must be, Induction shows that something actually is operative, Abduction merely suggests that something may be. Its only justification is that from its suggestion deduction can draw a
prediction which can be tested by induction and that, if we are ever to learn anything or understand phenomena at all, it must be by abduction that this is to be brought about. (*EP* 2:216)

An abductive inference provides the material – a hypothesis – without which neither deduction nor induction could function. As the only point in the reasoning process in which a new idea is brought forward, abduction forms the locus of scientific creativity.

Developmental accounts of Peirce’s theory of abduction divide his writings on the topic into “early” and “late” versions. In early accounts (which generally predate 1891), Peirce conceives of abduction primarily as an evidencing process possessing a unique syllogistic form, while late accounts conceive of abduction along methodical lines as a stage of scientific inquiry in which a hypothesis is proposed. A lucid version of an early account of abduction as an evidencing process with syllogistic form is given in Peirce’s 1878 “Deduction, Induction, and Hypothesis.” Hypothesis and induction are presented as types of syllogistic inference formed through an inversion of the deductive syllogism. In Peirce’s example:

**DEDUCTION**

*Rule.* – All the beans from this bag are white.
*Case.* – These beans are from this bag.
*Result.* – These beans are white.

**INDUCTION**

*Case.* – These beans are from this bag.
*Result.* – These beans are white.
*Rule.* – All the beans from this bag are white.

**HYPOTHESIS**

*Rule.* – All the beans from this bag are white.

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88 The distinction is first made by Burks. While Burks’ characterization provide the main vectors of Peirce’s theory, some “early” accounts of abduction often feature methodological discussions of hypothesis formation and some “late” accounts preserve a notion of evidencing as well as a syllogistic description of the abductive inference. As Anderson clarifies: “the shift is not simply from evidencing process to source of new ideas, but a shift from a conflation of these two ideas to a particular emphasis on the latter” (147). Further refinements in the developmental account are provided by Paavola (246-49).
Result. – These beans are white.
Case. – These beans are from this bag. (W 3:325-26)

As Peirce’s examples show, the syllogistic form of abduction is not coincident with the temporal form of the process. That is to say, an abductive inference starts with the result – “some very curious circumstance” (W 3:326) – and then searches for a rule that explains the result as a case or instantiation of that rule. As Peirce illustrates the process: “Fossils are found: say, remains like those of fishes, but far in the interior of the country. To explain the phenomena, we suppose the sea once washed over this land” (W 3:326). This temporal process of working from the result to the supposition of the rule is not apparent from the syllogistic form and only becomes evident through examples. As Peirce notes, the explanation offered is merely a “fair guess” (W 3:325) and, as such, hypothesis is a particularly weak form of argument.

Peirce’s later writings theorize abduction, deduction, and induction as successive stages of scientific inquiry. Echoing his examples from the 1878 account, Peirce states in his 1908 “A Neglected Argument for the Reality of God” that “every inquiry whatsoever takes its rise in the observation … of some surprising phenomenon, some experience which either disappoints an expectation, or breaks in upon some habit of expectation of the inquisiturus” (EP 2:440-41). Peirce claims in the “New List” that predication begins with an act of attention that directs the mind to an object as a potential bearer of predicates. The later statement refines this account by emphasizing that attention is prompted by a sense of surprise or shock. The unexpectedness of the event, its ability to surprise us, is an indication that currently held beliefs and theories about the phenomenon
are incorrect. Abduction names the process by which a hypothesis is brought forward to explain the surprising phenomenon.

That the process of abduction is occasioned by a phenomenon that calls currently held beliefs into doubt recalls Peirce’s 1878 “The Fixation of Belief,” the first of a series of six papers collectively titled “Illustrations of the Logic of Science” (the sixth and final is “Deduction, Induction, Hypothesis”) in which Peirce provides the first formulation of pragmatism. “Fixation” frames the discussion of scientific logic within a model whose operative terms are doubt and belief: “The irritation of doubt causes a struggle to attain a state of belief. I shall term this struggle inquiry” (W 3:247). Doubt is not adopted as a systematic methodological principle but is always prompted by specific instances where habits of expectation have been upset. Peirce famously contrasts his notion of doubt with Cartesian skepticism in the 1868 “Some Consequences of Four Incapacities”:

We cannot begin with complete doubt. We must begin with all the prejudices which we actually have when we enter upon the study of philosophy. These prejudices are not to be dispelled by a maxim, for they are things which it does not occur to us can be questioned. Hence this initial skepticism will be a mere self-deception, and not real doubt; and no one who follows the Cartesian method will ever be satisfied until he has formally recovered all those beliefs which in form he has given up. It is, therefore, as useless a preliminary as going to the North Pole would be in order to get to Constantinople by coming down regularly upon a meridian. A person may, it is true, in the course of his studies, find reason to doubt what he began by believing; but in that case he doubts because he has a positive reason for it, and not on account of the Cartesian maxim. Let us not pretend to doubt in philosophy what we do not doubt in our hearts. (W 2:212)

Inquiry domesticates the unknown through the establishment of new habits of expectation and belief. Peirce’s dismissal of the Cartesian method as a “useless preliminary” amounts to a rejection of the Odysseus allegory of inquiry as stipulating its destination in advance.

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89 Coleridge’s “Essays on Method” present Columbus’ observation of the change of the magnetic needle as a paradigmatic instance of such an unexpected surprise. It is an example, in Coleridge words, of “a revelation, in ciphers, the key to which is still wanting” (F 480).
The goal of such inquiry is merely to reconfirm beliefs that were never really called into doubt. Inquiry conceived under such a model never discovers a new world; it can only result in a predetermined homecoming.

Peirce emphasizes in his 1903 lectures on pragmatism that abduction, while a kind of logical inference, “is very little hampered by logical rules” (EP 2:231). It is important to remember that abduction always takes place within a specific context as an attempt to generate an explanation for an unexpected phenomenon. One reason it is little hampered by rules is because the maxims that may lead to fruitful hypotheses in one context may not be especially helpful in another. Peirce in fact places no constraints on the mental activities or rules that may be involved in abduction. He states in the “Neglected Argument” that “[t]here is no kind of reasoning I should wish to discourage” in the search for an explanatory hypothesis and that “I should lament to find anybody confining it to a method of such moderate fertility as logical analysis” (EP 2:437). While no constraints are placed upon the mental operations involved in the formation of a hypothesis, abduction places two constraints on the nature of the hypothesis: it must (1) explain the surprising phenomenon that occasioned its suggestion and (2) admit of deductive explication and inductive testing. Because the purpose of abduction is to suggest a suitable hypothesis, any operations that may contribute to doing so are permitted. Any overview of this process will, therefore, necessarily be vague. In Peirce’s description from the “Neglected Argument,” the first stage of inquiry encompasses all

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90 The second constraint suggests to Peirce the close – even exact – link between pragmatism and the logic of abduction. Peirce writes in his 1903 Lectures on Pragmatism that “the question of pragmatism … is nothing else than the question of the logic of abduction,” and, furthermore, that “no effect of pragmatism which is consequent upon its effects on abduction can go to show that pragmatism is anything more than a doctrine concerning the logic of abduction” (EP 2:234-35). The pragmatic maxim restricts the meaning of a conception to its conceivable practical bearings. Its application to abduction involves the admission or selection of yet-to-be-tested hypotheses on the basis of their ability to admit of experimental verification.
mental activity between the notice of the surprising fact and the adoption of the hypothesis: 91

The whole series of mental performances between the notice of the wonderful phenomenon and the acceptance of the hypothesis … -- the search for pertinent circumstances and the laying hold of them, sometimes without our cognizance, the scrutiny of them, the dark laboring, the bursting out of the startling conjecture, the remarking of its smooth fitting to the anomaly, as it is turned back and forth like a key in a lock, and the final estimation of its Plausibility,--I reckon as composing the First Stage of Inquiry. (EP 2:441)

Peirce variously aligns abduction with play (EP 2:436), with guessing (CP 7.219), and with attentive scrutiny (EP 2:441). Abductive guesswork is not random; its guesses are educated, in the root sense of eduction that Coleridge so frequently invokes. That is to say, the guesses are drawn from imaginative scrutiny and observation of the particular environment in which the surprising fact appears. Abduction is always mediated by its context, and this context includes the prior knowledge that the inquirer brings to the situation. Peirce characterizes the process as logical because it is partially under our control. Abductions, that is to say, can be performed better or worse in a given circumstance. Practice and prior knowledge can each improve the ability to make educated guesses. Peirce even suggests spending five to six percent of one’s waking time engaged in abductive guesswork (EP 2:436). The hypothesis is not believed as true so much as suspected of possibly being so. Its acceptance is especially provisional as hypothesis-formation is an eminently fallible process. Abduction merely suggests a

91 This is not quite a full account of the matter, as the quoted statement additionally includes “the final estimation of its Plausibility” as the final part of the initial stage of inquiry. Peirce notes that “[p]roposals for hypotheses inundate us in an overwhelming flood” (CP 5.602) such that economic considerations are paramount in the selection of those hypotheses to submit to the more costly second and third stages of inquiry. Peirce, unsurprisingly, presents a triadic classification of the various types of economic factors (CP 7.223). The sorting of hypotheses according to both explanatory and economic factors is what is generally meant by references to abduction as inference to the best explanation.
hypothesis whose consequences are clarified and explicated by deductive reasoning and then tested by inductive procedures.

It might be objected that the abductive process is practically destined never to generate an accurate hypothesis. The sheer number of potentially explanatory hypotheses are so multitudinous that guessing the correct one would amount to finding the proverbial needle in a haystack. As Peirce articulates this objection:

A physicist comes across some new phenomenon in his laboratory. How does he know but [that] the conjunctions of the planets have something to do with it, or that it is not perhaps because the dowager empress of China has at that same time a year ago chanced to pronounce some word of mystical power, or some invisible Ñimmîy may be present. Think of what trillions of trillions of hypotheses might be made of which one only is true. (EP 2:217)

Peirce answers this objection by stating that the history of modern science incontrovertibly shows that many true hypotheses have been correctly inferred (EP 2:217, 444). As he writes in the 1903 Lowell Lectures: “The history of science, especially the early history of modern science … show[s] how few were the guesses that men of surpassing genius had to make before they rightly guessed the laws of nature” (CP 5.604). If the history of science discloses that abduction has generated correct explanatory hypotheses, then humans have a faculty of guessing true theories. As Peirce variously puts it:

It appears to me that the cleanest statement we can make of the logical situation,—the freest from all questionable admixture,—is to say that man has a certain Insight, not strong enough to be oftener right than wrong, but strong enough not to be overwhelmingly more often wrong than right, into the Thirdnesses, the general elements, of Nature. (EP 2:217).

Or:

But is it a fact that man possesses this magical faculty? Not, I reply, to the extent of guessing right the first time, nor perhaps the second; but that the well-prepared
mind has wonderfully soon guessed each secret of nature, is historical truth. All
the theories of science have been so obtained. (*EP* 2:444).

These statements, from 1903 and 1908 respectively, merely shift the question. The
existence of such a “magical faculty” is itself a surprising fact that stands in need of an
explanatory hypothesis. How can this power be accounted for?

Recall Peirce’s denials from the 1868 “Questions” that we possess a power of
intuition, a power of introspection, a power of thinking without signs, and the ability to
cognize the absolutely incognizable. Peirce’s attempt to construct a philosophy of mind
on the basis of these denials in the follow-up 1868 “Some Consequences of Four
Incapacities” lead him to posit the notion that the mind develops from, and participates
in, a boundless continuum of sign-relations. It does not stand outside of this system of
sign-relations as outside observer but emerges from within its ongoing processes as one
among many consistently identifiable sites of relation. It is by virtue of the fact the mind
developed within an embodied system of sign-relations that it possesses a capacity to
make correct abductions. As Peirce argues in the 1891 “Architecture of Theories”:

Thus it is that our minds having been formed under the influence of phenomena
governed by the laws of mechanics, certain conceptions entering into those laws
become implanted in our minds, so that we readily guess at what the laws are.
Without such a natural prompting, having to search blindfold for a law which
would suit the phenomena, our chance of finding it would be as one to infinity.
(*W* 8:100).

The mind possesses an attunement with that part of the developing sign continuum that it
takes shape from.\(^92\) This “attunement” is not a reference to an intuitive faculty, or even a
point about a faculty of mind, so much as it is directed to the situation of minds within

\(^92\) Or as Peirce restates this position in the 1903 Lowell Lectures: “[I]f the universe conforms, with any
approach to accuracy, to certain highly pervasive laws, and if man’s mind has been developed under the
influence of those laws, it is to be expected that he should have a natural light, or light of nature, or
instinctive insight, or genius, tending to make him guess those laws aright, or nearly aright” (*CP* 5.604).
networks of sign-relations. It is this hypothesis that explains, for Peirce, the limited tendency to guess correctly.

Peirce’s presents abduction as an essentially imaginative process. His account is highly consonant with Coleridge’s writings on imagination and method. As we have seen in §§4-6, Coleridge, by defining an idea as an educt of the imagination, and by extending the range of his chemical metaphor to include a result of inference and development, advances a theory of method that begins with an imaginative act that may be characterized in terms of logical inference. The idea educed or inferred by the imagination, like the hypothesis suggested by abductive inference, must (1) explain or render intelligible the phenomena that prompted its suggestion and (2) open a method, or path of transit, through its promise of future elaboration and testing. The secondary imagination educes the idea through “the dismission of the imagery” that distorts, surrounds, obscures, or obstructs that idea. Though Peirce was generally loathe to employ the term imagination – it is “ocean-broad” and thus “almost meaningless, so many and so diverse are its species” (W 8:290) – he nevertheless claims that the species of imagination used in science does not adorn a representation so much as strip away all its ornamentation: the imagination of Kepler, treated as typical of the scientist, “makes the clothing and the flesh drop off, and the apparition of the naked skeleton of truth to stand revealed before him” (W 8:290). As Coleridge writes in Biographia Literaria, the secondary imagination “dissolves, diffuses, dissipates, in order to re-create.” In highlighting the crucial role of imagination to the initial stage of scientific inquiry, in analyzing the function of imagination as a form of inference, in stating that hypotheses need to both render phenomena intelligible and submit to experimentation, and in
analyzing the imaginative inference as a stripping away that allows relevant relations to come into view, Coleridge’s methodological writings anticipate Peirce’s presentation of abduction as the initial stage of scientific method in many of its essential points.

§8.6 – The Continuity between Abduction and Perceptual Judgment

Perception, like the formation of an explanatory hypothesis, is also an inherently creative act. Peirce in fact analyzes perceptual judgment as an extreme case of abductive inference. He writes in his 1903 Lectures on Pragmatism that

abductive inference shades into perceptual judgment without any sharp line of demarcation between them; or in other words our first premisses, the perceptual judgments, are to be regarded as an extreme case of abductive inferences, from which they differ in being absolutely beyond criticism. The abductive suggestion comes to us like a flash. It is an act of insight, although of extremely fallible insight. It is true that the different elements of the hypothesis were in our minds before; but it is the idea of putting together what we had never before dreamed of putting together which flashes the new suggestion before our contemplation. On its side, the perceptive judgment is the result of a process, although of a process not sufficiently conscious to be controlled, or to state it more truly, not controllable and therefore not fully conscious. (EP 2:227)

The chief difference between the formation of a perceptual judgment and the formation of a hypothesis is that the former process functions without conscious control. Yet, when analyzed or broken down, the perceptual judgment may be understood as the result of an infinite series of discrete acts of abductive inference. As Peirce explains, perception does not perform a multitudinous number of acts any more than, in the sophism regarding Achilles and the tortoise, Achilles has to perform an infinite number of acts before surpassing the reptile in a foot race. Like Achilles’ motion, perception is a continuous process.
Mediating links between perceptions and abductions are found in optical illusions familiar from Gestalt psychology. Peirce refers to the example of Schroeder Stairs – a diagram of that appears – variously – to represent either a set of stairs looked at from above or a set of stairs looked at from below. The first glance at the diagram renders it intelligible as a set of stairs according to one of these two constructions. That is to say, one of these two interpretations appears to be given with the perception. It is only after repeated experience with the diagram that the mind, first, unconsciously changes the orientation of the stairs, second, learns how to consciously alternate the interpretation, and, finally, begins to recognize the two-dimensional drawing apart from either of the two interpretations. At initial glance, let us say that the diagram is rendered intelligible as stairs looked at from above. At a later moment, once we have learned to “flip” the orientation of the stairs at will, the interpretation of the diagram as stairs looked at from above is the result of a deliberate act. Such Gestalt figures mediate between perception and abduction insofar as the same rendering of the diagram can be the result of both uncontrollable perception and controlled abduction.

One implication of the continuity between perceptual judgment and abductive inference is that perception itself is interpretive. The diagram of Schroeder Stairs provides one such instance. Peirce presents a series of relatively commonplace examples to show that “we perceive what we are adjusted to interpreting” (EP 2:229). These include the notorious unreliability of witness testimony (W 2:195), the ability of a skilled magician to continually fool his audience (W 2:195-96), the frequent occurrence of typos or misprints that go unnoticed because automatically corrected (EP 2:229), and even the fact that part of the field of vision, due to the blind spot in the retina, must be inferred.
rather than seen \((W\, 2:197)\). The interpretative character of perception is, for Peirce, a fact sufficiently established by empirical psychology.

Peirce’s 1903 lectures on pragmatism present the continuity of perception and abduction as one of three propositions conceived as whetstones to sharpen the understanding of pragmatism. Coleridge presents the same continuity as the theoretical core of the 1818 \textit{Biographia Literaria}. To repeat Coleridge’s paragraph once more:

\begin{quote}
The imagination then I consider either as primary, or secondary. The primary imagination I hold to be the living Power and prime Agent of all human Perception, and as a repetition in the finite mind of the eternal act of creation in the infinite I am. The secondary I consider as an echo of the former, co-existing with the conscious will, yet still as identical with the primary in the \textit{kind} of its agency, and differing only in \textit{degree}, and in the \textit{mode} of its operation. It dissolves, diffuses, dissipates, in order to re-create; or where this process is rendered impossible, yet still at all events it struggles to idealize and to unify. (\textit{BL} 1:304)
\end{quote}

The secondary imagination, later developed as the form of inference that brings forward an idea, is placed into close relation to the primary imagination as the agent behind perception. Imaginative inference and perception share an identical, creative agency. They differ only in degree and mode of operation insofar as perception functions continuously as an automatic (it does not co-exist with the conscious will) and therefore uncontrollable process, while imaginative inference brings the process under some degree of conscious control.

\section*{§8.7 – The Generality of Signs: Non-human Representational Reality}

Peirce states in the “New List” that “‘representation’ is here to be understood in a very extended sense, which can be explained by instances better than by a definition” \((W\, 2:54)\). In Peirce’s illustrations:
a word represents a thing to the conception in the mind of the hearer, a portrait represents the person for whom it is intended to the conception of recognition, a weathercock represents the direction of the wind to the conception of him who understands it, a barrister represents his client to the judge and jury whom he influences. \((W\ 2:54)\)

Peirce’s instances suggest two general features of representations. First, they show that there are a variety of sign types (the examples present an icon, an index, and two symbols). Second, Peirce emphasizes the necessity of the addressing function of the interpretant as an essential component of representation in each instance (in order to stand for something, a sign must stand to something for something). Hence, a portrait is a likeness or icon of a person to one who recognizes it; a weathercock is an index of the direction of the wind to one who so understands it, a word is a symbol of a thing to a conception in the mind of the person who hears it spoken, and a barrister is a symbol of his client to a judge and jury.

Yet these two features do not convey the full expansiveness of Peirce’s idea of representation. As his later writings make evident, these instances are lacking on at least four counts. In the first place, these illustrations do not emphasize (though they are compatible with) the fact that Peirce’s pragmatism does not restrict the meaning of a sign to its actual interpretation. It is only necessary that a sign is capable of being so interpreted. Second, Peirce’s illustrations are all instances of conventional, or man-made, signs, whereas his idea of representation is expansive enough to encompass natural signs. Third, these illustrations do not show how one and the same sign, depending on how it is interpreted, can stand to its object as an icon, index, or symbol. Fourth, Peirce’s examples all seem to demand a human interpreter, whereas his definition does not limit interpretation in such a manner. These four features of representation are treated in turn
below. Because Peirce’s own thought often functions, according to his own self-diagnosis, as an abstract table of contents, the true expansiveness of Peirce’s idea of representation only comes into view as illustrations are both fleshed out and varied in kind. This fact is closely linked to scholarly debates over the development of Peirce’s theory of signs. That is to say, while Peirce’s early definitions are often capable of encompassing later refinements and clarifications, the skeletal form of Peirce’s illustrations often do not emphasize those selected points that are later refined or clarified.  

Peirce’s instances of representation are all interpreted as showing relations of various sorts. The exhibited relations (the direction of the wind, the function of a barrister, the reference of a word, the features of a person) constitute what Peirce later calls the “representative quality” of the sign. As Peirce notes in the following observation, this representative quality does not hinge on the whether the sign is ever so interpreted:

[W]hile no Representamen actually functions as such until it actually determines an Interpretant, yet it becomes a Representamen as soon as it is fully capable of doing this; and its Representative Quality is not necessarily dependent upon its ever actually determining an Interpretant…. (CP 2.275 c. 1902)

Peirce’s observation is closely linked to his pragmatism as a maxim for clarifying ideas through their conceivable practical consequences. A sign is formed as soon as it is capable of being interpreted as exhibiting a relation; its meaning is identified with the

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93 A characteristic example is provided by Peirce’s writings on whether or not a sign must actually be interpreted or whether it should merely be capable of being interpreted. Critics such as T. L. Short point to examples such as Peirce’s 1878 statement that there is no difference between a hard thing and a soft thing so long as they are not tested to argue for a developmental account wherein it is possible to track how Peirce’s basic opinions changed (54). Yet Peirce’s definitions, if one puts his examples out of mind, are often accommodating enough to support later positions. In this case, one paragraph before his example of the hard thing and the soft thing, Peirce emphasizes “effects, which might conceivably have practical bearings” (my emphasis) rather than restricting meaning to the actual test itself (W 3:266).
practical consequences that would follow were it so interpreted, that is, were it taken up as functioning within a semiotic network. A weathercock, in other words, is a sign of the direction of the wind whether or not anyone is looking at it. As Peirce writes in his 1866 “On a Method of Searching for the Categories”: “Reference to an interpretant is simply the *addressing* of an impression to a conception. To *address* or *appeal* to, is an act we, in fact, suppose everything to perform, whether we attend to the circumstance or not” (*W* 1:523). An essential component of a stop sign is that it makes a constant address or appeal to potential drivers. Not only does it count as a sign whether or not there are any drivers at any given moment to obey it, but it still continues to function as a sign even in cases where it is not attended.

The illustrations of signs in the “New List” are all man-made. There is, however, nothing in Peirce’s definition of representation that excludes natural signs. Consider the many ways that a tree (or its parts) may serve as signs. The cross section of the trunk is a sign of the tree’s age, because an interpreter could count its rings and so understand it. The distance between the rings is a sign of the relative amount of rain that has fallen on a yearly basis during the time in which the tree was alive. The degree of the slant of the trunk of a standing tree may indicate both the general severity and usual direction of the wind in a given area. The shape and size of holes in the trunk are signs of woodpeckers or sapsuckers, and, in the case of holes associated with woodpeckers, are also signs of the tree as home to certain insects. The recent proliferation of a certain kind of lichen on the trunks of trees are an index, at least on the trees near my home, that the installation of sulfur dioxide scrubbers in nearby coal-fired power plants are indeed reducing the amount of sulfur dioxide emitted into the air. And so on, in more increasingly complex
ways. A few moments spent in active contemplation quickly reveals that a simple tree and its features can function as a sign in an “indefinitely determinable” number of ways. All of these signs, that is to say, exhibit a relation that may be interpreted if only attended to. The natural signs so far educed are all indices. They represent an object that they are related to through a “correspondence in fact.” Natural signs are not restricted to the category of an index. The so-called walking stick or stick-bug is a likeness (in both color and shape) of many leaves. The shape of the bill of many hummingbirds is a likeness of the shape of the flowers from which they acquire nectar. Instances may be easily multiplied. The question of natural symbols is more difficult. A natural symbol would require that the imputed significance of a sign was not generated by a human being.\footnote{Kohn argues that symbols are a form of representation unique to humans (31-2), a position that Peirce’s synechism could not accept, while Liszka, for example, argues that a dog wagging its tail as a gesture of friendliness is an indurated habit and so may be seen as a natural symbol (39).}

One and the same sign may be interpreted as either an icon, index, or symbol. The walking stick may be both a likeness of a certain type of leaf as well as a fair indication of the nearby existence of plants bearing such leaves. An onomatopoeic word such as “meow” may be both a likeness of the noise a cat makes as well as a symbol chosen to designate the noise made by a cat. The flexibility of Peirce’s idea of representation lies partially in the fact that an object is always rendered intelligible in some respect, and partially in the fact that constraints are placed upon a sign by both its object and its potential interpreter.

Peirce revisits his general notion of a sign in a 1908 letter to Lady Welby:

I define a Sign as anything which is so determined by something else, called its Object, and so determines an effect upon a person, which effect I call its Interpretant, that the latter is thereby mediately determined by the former. My insertion of ‘upon a person’ is a sop to Cerberus, because I despair of making my own broader conception understood. \textit{(EP} 2:478\textit{)}

Kohn argues that symbols are a form of representation unique to humans (31-2), a position that Peirce’s synechism could not accept, while Liszka, for example, argues that a dog wagging its tail as a gesture of friendliness is an indurated habit and so may be seen as a natural symbol (39).
The insertion of “upon a person” is a “sop to Cerberus” because there is nothing in Peirce’s idea of representation that necessarily restricts the interpretant to a human mind. The “representational quality” of a sign may be interpreted by other creatures as well. A dog, for instance, may interpret a leash in the hand of its owner as a sign for going on a walk. The effect upon the dog is not determined by the leash as such (the sight of one has no effect on a newborn puppy), but is a result of the leash interpreted as a sign standing for something else. The flowers of orchids often resemble female wasps. They share a likeness of shape, size, texture, color, even perfume. A human mind can interpret this relation and so understand the flower as an *icon* of the female wasp. The male wasp also interprets the scent, shape, color and texture of the flower as a sign for a female wasp and then attempts to copulate with it. The male wasp quickly stops its attempt at copulation, but not before inadvertently taking pollen from the flower that it will later deposit in a new flower through a similar semiotic misadventure. (This is, of course, not a misadventure from the point of view of the orchid: the address to its interpretant hits the intended mark).

It may be objected that while the interpretive process of counting tree rings as an indication of the age of a tree is a decidedly conscious affair, the male bee, on the other hand, unconsciously and instinctively attempts to mate with an orchid that resembles a female wasp. Yet the very import of the continuity Peirce traces between abductive inference and perceptual judgment is that conscious control is not a necessary ingredient of interpretation. An instinctual perceptual judgment is nothing but an extreme case of abductive inference. As the example of the male wasp reinforces, abductive inference is an extremely fallible process. Thought, for Peirce, takes place as the continual process of
interpretation that he identifies with semiosis. As he describes the process in terms that explicitly move away from human consciousness in his 1906 “Prolegomena to an Apology for Pragmaticism”:

Thought is not necessarily connected with a brain. It appears in the work of bees, of crystals, and throughout the purely physical world; and one can no more deny that it is really there, than that the colors, the shapes, etc., of objects are really there. Consistently adhere to that unwarrantable denial, and you will be driven to some form of idealistic nominalism akin to Fichte’s. Not only is thought in the organic world, but it develops there. But as there cannot be a General without Instances embodying it, so there cannot be thought without Signs. We must here give “Sign” a very wide sense, no doubt, but not too wide a sense to come within our definition. Admitting that connected Signs must have a Quasi-mind, it may further be declared that there can be no isolated sign. Moreover, signs require at least two Quasi-minds; a Quasi-utterer and a Quasi-interpreter; and although these two are at one (i.e., are one mind) in the sign itself, they must nevertheless be distinct. In the Sign they are, so to say, welded. Accordingly, it is not merely a fact of human Psychology, but a necessity of Logic, that every logical evolution of thought should be dialogic. (CP 4.551)

Even though this passage is from a preliminary discussion of Peirce’s articulation of a system of graphical logic, it is directly applicable to the case of the orchid and the male wasp. The orchid is the quasi-utterer of a sign. Its flower addresses itself to a quasi-interpreter, the male wasp, who tries to copulate with it. In the actual functioning of the sign, this utterance and interpretation are welded. Mind, for Peirce, is located in such meetings or interpretive acts; the dialogic unfolding of semiosis is the unfolding and development of thought, whether it is consciously attended to or not.

Peirce’s general notion of representation implies that consciousness is not the only theatre of interpretation, or of mind. This is emphatically not to state that consciousness does not exist,95 or that it does not facilitate the interpretive process in

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95 Peirce denies an intuitive self-consciousness but not a mediated self-consciousness. Even this mediated self-consciousness proceeds through a dialogic process of semiotic. Peirce often refers to the vernacular “I says to myself says I” (EP 2:402) to point to the kinds of utterances and interpretations that meet in self-consciousness.
interesting or meaningful ways. (If it did not do so, then abduction would not be a process that could brought, even partially, under control). As Peirce notes in a 1903 rewriting of the “New List,” sense presents to us a manifold of consciousness that seems to be segregated into distinct persons. Yet he emphasizes that while

in this seeming there is some truth[,] … personality, on both sides, that of the unification of all a body’s experiences, and that of the isolation of different persons, is much exaggerated in our natural ways of thinking.-- ways that tend to puff up the person, and make him think himself far more real than he veritably is. A person is, in truth, like a cluster of stars, which appears to be one star when viewed with the naked eye, but which scanned with the telescope of scientific psychology is found on the one hand to be multiple within itself, and on the other hand to have no absolute demarcation from a neighboring condensation. (MS 403, as quoted in Gartenberg 607)

To identify a person solely with those semiotic meetings whose locus occurs within an isolated consciousness is to form a warped picture in at least two respects. On the one hand, it neglects those consciously attended semiotic processes – those meetings of utterance and interpretation – that take place in the formative interactions between the person and other individuals and institutions. On the other hand, it neglects those unconscious semiotic processes, such as the quasi-utterances and quasi-interpretations that constitute the life of intestinal bacteria crucial for the well-being of the person. An expansive series of mutual and essential semiotic relations tie a person together, and the thoughts of a private consciousness constitute only a small fraction of these relations. The orchid, similarly, is tied to the wasp through one such mutual and essential semiotic relation. This relation is necessary for the very survival of the orchid. The identity of the plant, when looked at from the perspective of its method of reproduction, is not absolutely demarcated from that of the wasp. Like the person, the orchid also resembles a cluster of stars.
Peirce’s general idea of representation thus implies a certain picture of the world: “all this universe is perfused with signs, if not composed exclusively of signs” (EP 2:394). The world is not made up of individuals in an atomistic manner, but is also suffused with the relations that determine the qualities and characteristics of these individuals. These relations are either addressing their potential interpreters or developing as they are interpreted and so translated into new signs. Peirce claims in the “Neglected Argument” that individual consciousness is only one instance of this process: “Such, too, is a living consciousness, and such the life, the power of growth of a plant. Such is a living institution,—a daily newspaper, a great fortune, a social ‘movement’” (EP 2:435).

As Coleridge says in his “Theory of Life”: “What is Life? Were such a question proposed, we should be tempted to answer, what is not Life that really is?” (SW&F 1:506). As we have seen, Coleridge similarly puts forward a view where the objects of this world, like the bird’s cry in Stevens’ “Not Ideas About the Thing but the Thing Itself,” translucently display the relations that shine through them. The burden of Coleridge’s conversation poems is to show that the world is thus, in Coleridge’s sense, symbolic.

Peirce, as is his habit as a logician, transfers this insight into logical terms. Nature reasons. Peirce is careful to note that though others may not cast the matter in such terms, even the mechanical philosopher, someone whom Coleridge characterizes as believing the universe to be nothing but a machine whirled about by the dust of its own grinding, still finds syllogistic processes in nature:

We all think of nature as syllogizing. Even the mechanical philosopher, who is as nominalistic as a scientific man can be, does that. The immutable mechanical law together with the laws of attraction and repulsion form the major premise, the instantaneous relative positions and velocities of all the particles … is the minor
premise, the resulting accelerations form the conclusion. That is the very way the mechanical philosopher conceives the universe to operate.

I have not succeeded in persuading my contemporaries to believe that Nature also makes inductions and retrodictions… I point to the infinite variety of nature as testifying to her Originality or power of Retroduction. But so far, the old ideas are too ingrained. (*RLT* 161)

As we have seen, Coleridge, also characteristically, recasts a similar insight into the terms of poetry. It is through the meditative observation of the scientist that “we find poetry, as it were, substantiated and realized in nature: yea, nature itself disclosed to us, *Geminam istam naturam, quae fit et facit, et creat et creatur*, as at once the poet and the poem!” (*F* 471).
§9 – Exemplifying the Imagination: Johannes Kepler’s *Six-Cornered Snowflake*

Numerous references are made to the work of Johannes Kepler in the writings of Coleridge and Peirce. They both value Kepler’s work as among the most significant in the history of science and draw attention to its exemplary imaginative or abductive character. Kepler, in fact, stands for both thinkers as the preeminent exemplar of such activity. This chapter brings Coleridge’s and Peirce’s writings on imagination to bear on a reading of Kepler’s 1611 *The Six-Cornered Snowflake*.

Coleridge and Peirce, however, were not the only nineteenth-century thinkers to highlight the strikingly imaginative quality of Kepler’s thought. The astronomer, intriguingly, also stands as Edgar Allan Poe’s primary example of the scientist as analytic detective. Poe’s notion of analytic ability, described in the opening of “Murders in the Rue Morgue,” itself serves as an intermediary between Coleridge’s idea of secondary imagination and Peirce’s idea of abductive inference. For just as Poe refers to Coleridge’s idea of imagination as a narrower version of his own notion of analytic power in the opening of “The Murders in the Rue Morgue,” the first analytic detective story,96 so does Peirce, in his description of abductive inference in the “Neglected Argument,” refer back to Poe’s detective fiction in his description of the initial stage of inquiry.97

The purpose of the opening section is largely documentary. It collects mentions of Kepler’s work and generalizes the ways in which it is most commonly invoked by Coleridge, Poe, and Peirce. Section two situates Kepler’s *Six-Cornered Snowflake* among recent scholarship on Kepler that reveals the extent to which his texts function as

96 The duplicitous manner in which Poe often opposes while relying on Coleridge’s theory of imagination is examined by Kearns and Schultz.
97 Affinities between Poe’s model of analytic detective and Peirce’s notion of abduction are explored in Grimstad and Harowitz.
rhetorical arguments rather than as historical accounts of discovery. The third section summarizes a portion of Kepler’s imaginative procedure, while the fourth section analyzes this procedure using Coleridge’s, Poe’s, and Peirce’s writings on the imagination. The final section considers Kepler’s own presentation of the imagination as a power, aligned with play, that is tautegorically exemplified in both the shape of a snowflake and in his own method of searching for the cause of the snowflake’s shape.

§9.1 – Kepler as Imaginative Exemplar

We have seen that Coleridge’s theory of inquiry requires an imaginative inference through which an idea is suggested or attributed. The 1816 Statesman’s Manual draws attention to how an imaginative reading of nature has provided select scientists with treasure, power, and truth. Coleridge includes Kepler’s laws of planetary motion as one of the major results of reading through this imaginative light:

O for a flash of that same Light, in which the first position of geometric science that ever loosed itself from the generalizations of a groping and insecure experience, did for the first time reveal itself to a human intellect in all its evidence and all its fruitfulness, Transparence without Vacuum, and Plenitude without Opacity! O that a single gleam of our own inward experience would make comprehensible to us the rapturous EUREKA, and the grateful Hecatomb, of the philosopher of Samos! or that Vision which from the contemplation of an arithmetical harmony rose to the eye of KEPLER, presenting the planetary world, and all their orbits in the divine order of their ranks and distances; or which, in the falling of an Apple, revealed to the ethereal intuition of our own Newton the constructive principle of the material Universe. (LS 50-51)

Kepler’s laws here constitute one of Coleridge’s three (or four) most preeminent examples of the results of scientific imagination. (Coleridge merges Pythagoras’ reported hecatomb after the discovery of the Pythagorean theorem with Archimedes’ reported
exclamation of “eureka!” upon the discovery that water displacement could be used to infer the density of objects).

Coleridge returns to the example of Kepler’s laws of planetary motion in an 1825-26 Notebook entry. Kepler’s scientific work provides an instance of the difference between an ‘idea’ and a ‘conception.’ Coleridge writes:

[T]he Ideas of Kepler, the Correlates of the Law of the Planetary Orbits contrasted with the Conceptions of Ptolemy who began with the phenomena, the apparent motions, as data--& then sought to take them as that he might take them all together—i.e. concipere, capere haec cum illis—and this Conception, or Synopsis of a plurality of phenomena so schematized as to show the compatibility of their co-existence, is Theory—a product of the Understanding in the absence or eclipse of Ideas, or Contemplations of the Law, and hence necessarily conditioned by the Appearances, and changing with every new or newly-discovered Phenomenon, which Theory always follows never leads—while the Law being constitutive of the phenomena and in order of Thought necessarily antecedent, the Idea as the Correlative and mental Counterpart of the Law, is necessarily prophetic and constructive. (CN 4:5294)

As was examined in §5.2, Coleridge’s contrast of Kepler’s laws of planetary motion with Ptolemaic planetary models reveals how ideas are constitutive and so exemplifies Coleridge’s answer to what he considered in 1816 as philosophy’s highest problem.

Kepler’s importance for Coleridge is not merely that his achievements are some of the most important in the history of science or that they exemplify Coleridge’s theory of inquiry. Coleridge turns to Kepler in the 1818 “Essays on Method” to highlight Kepler’s unusual means of conveying his particular results. Coleridge draws particular attention to the fact that Kepler’s writings do not simply state these results, but instead present the methodological stakes involved in their discovery.

But Kepler seemed born to prove that true genius can overpower all obstacles. If he gives an account of his modes of proceeding, and of the views under which they first occurred to his mind, how unostentatiously and in transitu, as it were, does he introduce himself to our notice: and yet never fails to present the living
germ out of which the genuine method, as the inner form of the tree of science, springs up! (F 485)

Kepler’s own writings thematize the imaginative issues central to his scientific discoveries. They exemplify the initial stage of inquiry – the imaginative eduction of an idea – from which a scientific method evolves through the exploration and testing of that idea by a future community of inquirers.

The imaginative character of Kepler’s achievement, in combination with Kepler’s emphasis on highlighting his modes of proceeding, leads Coleridge to elevate Kepler’s importance above that of Newton and Galileo. As Coleridge states in an 1830 specimen of his Table Talk:

Galileo was a great genius, and so was Newton; but it would take two or three Galileos and Newtons to make one Kepler. It is in the order of Providence, that the inventive, generative, constitutive mind—the Kepler—should come first; and then that the patient and collective mind—the Newton—should follow, and elaborate the pregnant queries and illumining guesses of the former. The laws of the planetary system are, in fact, due to Kepler. There is not a more glorious achievement of scientific genius upon record, than Kepler’s guesses, prophecies, and ultimate apprehension of the law of the mean distances of the planets as connected with the periods of their revolutions round the sun …. We praise Newton’s clearness and steadiness. He was clear and steady, no doubt, whilst working out, by the help of an admirable geometry, the idea brought forth by another. (TT 2:125-26)

Coleridge here elevates Kepler’s discovery of the third law of planetary motion to the single most glorious achievement of scientific genius on record. In addition, Coleridge connects the notion of “guessing” to imaginative or eductive inference. Kepler, in other words, could not be more important for Coleridge’s theory of scientific imagination.

It is generally recognized that Edgar Allan Poe reworks Coleridge’s distinction between imagination and fancy into his distinction between analytic ability and ingenuity in the 1843 “Murders in the Rue Morgue.” The following selection from the 1845
“Chapter of Suggestions” prefigures Poe’s treatment of the role of analytic ability within scientific inquiry and invokes Kepler as an exemplary imaginative thinker:

That the imagination has not been unjustly ranked as supreme among the mental faculties, appears, from the intense consciousness, on the part of the imaginative man, that the faculty in question brings his soul often to a glimpse of things supernal and eternal—to the very verge of the great secrets. There are moments, indeed, in which he perceives the faint perfumes, and hears the melodies of a happier world. Some of the most profound knowledge—perhaps all very profound knowledge—has originated from a highly stimulated imagination. Great intellects guess well. The laws of Kepler, were, professedly, guesses. (Essays 1293)

This passage more forcefully makes the connection between imagination and guessing that Coleridge presents in the assessment of Kepler from Table Talk, a volume that Poe indicates he had read.98

Poe’s 1848 Eureka again invokes Kepler as an illustration of the close link between imagination and guessing. As part of a brief description of Kepler’s three laws of planetary motion, Poe notes that the force of Kepler’s laws are such that even unseen planetary systems will move

in obedience to the three omniprevalent laws of revolution—the three immortal laws guessed by the imaginative Kepler, and but subsequently demonstrated and accounted for by the patient and mathematical Newton. Among a tribe of philosophers who pride themselves excessively upon matter-of-fact, it is far too fashionable to sneer at all speculation under the comprehensive sobriquet, ‘guess-work.’ The point to be considered is, who guesses. (Poetry 1331-32)

Poe’s observation repeats Coleridge’s contrast between the “inventive” Kepler and the “patient” Newton from Table Talk, including Coleridge’s extension of Kepler’s procedure to encompass a form of guessing.99

98 As Poe writes in his review of Letters, Conversations and Recollections of S. T. Coleridge: “We feel even a deeper interest in this book than in the late Table-Talk” (Essays 181).
99 The leader of the philosophic tribe that Poe attacks is presumably John Stuart Mill. Writing against William Whewell’s account of the logic of the inductive sciences. Mill, in his System of Logic, complains that Whewell’s methodological prescription for the generation of hypotheses amounts merely to “guessing until a guess is found which tallies with the facts” (304) and so leaves the truth of the proposed relation forever in doubt. A key component of the Mill-Whewell debate was in fact a disagreement over Whewell
The letter from “2848” that serves as a methodological preface to Eureka puts Kepler forward as the main prototype of “the only true thinkers --- … the generally-educated men of ardent imagination” (Poetry 1269). Poe repeats his claim that the major advancements in science are made by imaginative guesswork rather than through inductive or deductive processes. He presents Champollion’s deciphering of Egyptian hieroglyphics and Kepler’s discovery of the laws of planetary motion as the two great instances of imaginative guess-work. Of Kepler in particular he writes:

Kepler admitted that these laws he guessed—these laws whose investigation disclosed to the greatest of British astronomers that principle, the basis of all (existing) physical principle, in going behind which we enter at once the nebulous kingdom of Metaphysics. Yes!—these vital laws Kepler guessed—that is to say, he imagined them. Had he been asked to point out either the deductive or inductive route by which he attained them, his reply might have been—‘I know nothing about routes—but I do know the machinery of the Universe. Here it is. I grasped it with my soul—I reached it through mere dint of intuition.’ (Poetry 1270)

Kepler thus emerges for Poe as the model of the scientist as analytic detective, just as he emerges for Coleridge as the model of the scientist as imaginative thinker.

Kepler takes on an even greater importance in Peirce’s thought, though Peirce praises Kepler largely along the same lines as Coleridge and Poe. In the first place, Peirce repeatedly claims that Kepler’s discovery of the first two laws of planetary motion in the New Astronomy represents the pinnacle of abductive inquiry, describing this volume as “beyond comparison the most marvelous piece of ampliative reasoning ever executed, as well as the most momentous in its consequences” (W 8:269). Or, as Peirce puts it elsewhere: “Kepler shows his keen logical sense in detailing the whole process by which he finally arrived at the true orbit. This is the greatest piece of Retroductive reasoning

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analysis of Kepler’s discovery of the first law of planetary motion in particular and Whewell’s reliance on Kepler as a model of scientific method more generally (Snyder 101-06).
ever performed” (CP 1.74). In the second place, and as this second quotation indicates, Peirce also draws attention to how Kepler’s manner of conveying his research highlights the methodological issues faced in the discovery of the laws of planetary motion. Peirce draws upon this fact to justify the inclusion Kepler’s Astronomia nova into his 1882 Johns Hopkins University course on logic: “Owing to the admirable and exceptional manner in which [New Astronomy] is written, it is possible to follow Kepler’s whole course of investigation from beginning to end, and to show the application of all the maxims of [scientific reasoning] already laid down” (W 4:382). Finally, Peirce states that Kepler’s method closely approximates Peirce’s own conception of scientific method: “Kepler comes very close to realizing my ideal of the scientific method; and he is one of the few thinkers who have taken their readers fully into their confidence as to what their method really has been” (CP 6.604). Notice of Kepler’s importance in these three areas led Coleridge to value Kepler as worth two or three Galileos and Newtons. Peirce uses the subjunctive mood to argue something similar in an 1892 review of Comte’s New Calendar of Great Men:

If Newton had not done his work, it would have got done piecemeal, with a delay of, say, fifty years in the establishment of the law of gravitation. If Kepler had not done his more difficult work, it would have had to wait for the further development of mathematics and of philosophy, which would themselves have been greatly retarded, so that civilization would probably have been put back almost two centuries. (W 8:270)

Exceeding even Coleridge’s esteem for the value of Kepler, Peirce’s counterfactual arithmetic estimates that it would take almost four Newtons to equal one Kepler.

Peirce singles out the importance of Kepler’s work more often, and analyzes it in greater detail, than either Coleridge or Poe. While there is not space for an exhaustive enumeration, Peirce’s most comprehensive treatment of the astronomer is found in an
1892 article that may have been used in his 1892-93 Lowell Lectures on the History of Science. The opening of the article reveals the intriguing possibility that Peirce was familiar with Poe’s *Eureka*. Whereas Poe presents Champollion’s deciphering of Egyptian hieroglyphics alongside Kepler’s discovery of the laws of planetary motion as the two major exemplars of imaginative or analytic guess-work, Peirce begins his article on Kepler as follows:

> But Johann Kepler it was who discovered the form of the planets’ paths in coursing round the sun and the law of their varying speed. This achievement, by far the most triumphant unravelment of facts ever performed—cunninger than any deciphering of hieroglyphics or of cuneiform inscriptions—occupied its author’s whole time from October 1600 to October 1604, and the greater part of four years more. (*W* 8:286)

Peirce uses precisely the same examples that Poe does (adding only a reference to the deciphering of cuneiform inscriptions, possibly a nod to the work of his former Johns Hopkins University colleague Paul Haupt), but presents Kepler’s achievement as comparatively greater than Champollion’s. After a biographical overview of Kepler’s life, Peirce provides an extended analysis of Kepler’s methodology:

> All the endowments of Kepler’s intellect and heart seem to have been concentrated upon one function, that of reasoning…. His admirable method of thinking consisted in forming in his mind a diagrammatic or outline representation of the entangled state of things before him, omitting all that was accidental, retaining all that was essential, observing suggestive relations between the parts of the diagram, performing diverse experiments upon it, or upon the natural objects, and noting the results. The first quality required for this process, the first element of high reasoning power, is evidently imagination; and Kepler’s fecund imagination strikes every reader. But ‘imagination’ is an ocean-broad term,—almost meaningless, so many and so diverse are its species. What kind of an imagination is required to form a mental diagram of a complicated state of facts? Not that poet-imagination that ‘bodies forth the forms of things unknown,’ but a docile imagination, quick to take Dame Nature’s hints. The poet-imagination riots in ornaments and accessories; a Kepler’s makes the clothing and the flesh drop off, and the apparition of the naked skeleton of truth to stand revealed before him. (*W* 8:289-90)
Kepler’s mode of proceeding, in Peirce’s analysis, additionally exemplifies the necessarily diagrammatic unfolding of abductive thought. However, the division between poetry and science that Peirce makes is precisely what Coleridge overcomes seventy years earlier in the “Essays on Method.”

Kepler’s importance for Coleridge, Poe, and Peirce as the exemplary imaginative thinker / analytic detective / abductive scientist stands unrivalled. Their work may be fruitfully applied to an understanding of Kepler’s own writings. By the same token, Kepler’s attention to the methodological and imaginative problems involved in inquiry suggests that his own writings provide a valuable resource with which to examine writings on the imagination by Coleridge, Poe, and Peirce.

§9.2 – Situating Kepler: The Six-Cornered Snowflake

The claims that Coleridge, Poe, and Peirce make regarding Kepler as an imaginative thinker will be brought to bear on a reading of Kepler’s 1611 *Six-Cornered Snowflake*. While there is no evidence that Coleridge, Poe, or Peirce read this particular text, its major concerns more neatly align with their theoretical writings on the imagination than Kepler’s better known *New Astronomy* and *Harmony of the World*. Before proceeding to an analysis of Kepler’s text, it is necessary to situate the *Six-Cornered Snowflake* within Kepler’s career as well as within the current state of Kepler scholarship.

To anyone who has taken so much as a high school physics course, Kepler’s name and achievements constitute familiar components of the commonplace understanding of the scientific revolution. Celebrated as the discoverer of three results so important that
they are became known as the “laws” of planetary motion – first, that the orbits of planets are elliptical, with the sun at one focus of the ellipse; second, that planets sweep out equal areas of their orbits in equal times; and third, that the square of the period of revolution of a planet is proportional to the cube of its mean distance to the sun – an over-simplified narrative presents Kepler as one of the key mediating figures between Nicholas Copernicus and Newton. Kepler’s 1596 *Mystery of the Universe* was the first avowedly Copernican work in astronomy published since Copernicus’ own 1543 *On the Revolutions of Heavenly Spheres*. Not only did Kepler’s three laws of planetary motion (the first two articulated in the 1609 *New Astronomy*; the third presented in the 1618 *Harmony of the World*) provide much of the empirical foundation of Newton’s 1687 *Mathematical Principles of Natural Philosophy*, but one of the crowning achievements of Newton’s book was the derivation of these laws from Newton’s own physical and mathematical principles. According to the commonplace narrative, Kepler emerges as one of the giants upon whose shoulders Newton stood.

As with any narrative, however, the arrangement of details in this familiar account gain their significance by virtue of the controlling perspective from which they are told. In this case, that perspective is provided by Newtonian dynamics as the *telos* to which the Scientific Revolution converges. Kepler’s three laws of planetary motion are not presented as such in Kepler’s own work. While they are not exactly buried, they are certainly not accorded the status one might expect from the commonplace narrative. Their contemporary status derives largely from their importance as idealizations derivable from Newtonian dynamics. As Bruce Stevenson observes: “The importance we attach today to Kepler, in singling out part of his work as ‘the laws of planetary motion,’
is largely due to the value which accrues to those laws in a science completely unknown to Kepler, classical or Newtonian physics” (202). Stephenson’s own work, following that of Alexander Koyré, locates the significance of Kepler’s achievement in his installation of a physical astronomy or celestial physics. Rather than simply identify a geometrical theory that saves the appearances of planetary motion, Kepler insists that planetary motion must be understood in physical terms. This is highlighted in the full title of Kepler’s major work: *New Astronomy: Based Upon Causes, or, Celestial Physics, treated by means of commentaries, On the Motions of the Star, Mars*. Stephenson shows how this major shift concerning the fundamentals of astronomy led Kepler to ask the novel questions that provided the impetus for the discovery of the laws of planetary motion.

Peirce, it should be noted, anticipates this central point. He writes:

> But Kepler did not understand the matter quite as Copernicus did. Because the sun was so near the center of the system, and was of vast size (even Kepler knew its diameter must be at least fifteen times that of the earth), Kepler, looking at the matter dynamically, thought it must have something to do with causing the planets to move in their orbits. This retroduction, vague as it was, cost great intellectual labor, and was most important in its bearings upon all Kepler’s work. ([CP](CP1.72))

Kepler’s introduction of physical methods to mathematical astronomy additionally provides a textbook example of Peirce’s 1882 claim that “the higher places in science … are for those who succeed in adapting the methods of one science to the investigation of another” ([W](W4:380)).

Kepler scholarship has shown that the centrality of Kepler’s physical concerns has a significant bearing on claims concerning the manner of composition of the *New Astronomy*, the work that has attracted the lion’s share of critical attention. Peirce, as was shown above, draws attention to the unique way in which Kepler’s writings do not simply
present his results in a systematic fashion, but instead appear to narrate the entire path of his inquiry. As Peirce puts it in an 1892 article: “In his great work on Mars, [Kepler] has laid bare to us all the operations of his mind during the whole research; and what better sign of the perfection of his ratiocination could there be than that no better pathway could be found by which to lead another’s thoughts to the same conclusion than that his own had broken in the first instance” (W 8:289-90). It is impossible to miss the fact that Kepler presents a first-person account that seems to include all of the mistakes and false starts he made in his investigations into the motions of Mars. While Newton employs a tightly organized presentation in the *Principia* to present his results through a series of numbered terms such as “definition,” “axiom,” “proposition,” “theorem,” “corollary,” “lemma,” and “scholium,” Kepler’s historical narrative – including many asides and apparent mistakes – makes his *New Astronomy* look, at least on first glance, like an argumentative mess. For instance, at one point Kepler introduces his own fumbling attempt to make a particular observation of Mars as “a clown show”:

So this is the first way of investigating Mars’ parallax. I shall now add the other way, because of its beauty; I cannot use the Brahean observations in it. Therefore, I am going to give you a clown show, in that I use my own observations, showing by example why Brahe needed such diligence, precision of instruments, assistants, and other equipment. (207)

The following pages describe the clown show in more detail, including Kepler’s inability to secure the required accuracy for his observations on one of the nights because “the wind was blowing so hard that it was only by a glowing coal that we could cast light upon the scale so as to read it” (210).  

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100 In this case, Kepler uses his “clown show” to demonstrate that a particular observation could be made in a different way. He does not use his fumbling observations. As he writes, apologizing for the “nausea evoked” by his “clown show”: “I would be crazy if I tried to use them in an undertaking requiring great precision. Therefore, I am presenting an example to another more diligent and successful observer, rather
reader’s pity when he claims that an especially wearying iterative procedure had to be carried out more than seventy times. As he addresses his reader: “If this wearisome method has filled you with loathing, it should more properly fill you with compassion for me, as I have gone through it at least seventy times at the expense of a great deal of time, and you will cease to wonder that the fifth year has now gone by since I took up Mars” (256). It is because of the prevalence of such details throughout Kepler’s writing that it appears to provide a window through which to observe the workings of Kepler’s mind.

The view that Kepler’s New Astronomy provides a faithful account of the true path of his research was a common assumption in work on Kepler from at least the early 1800s through the latter half of the twentieth-century. It is expressed most forcefully in Arthur Koestler’s 1959 The Sleepwalkers. As Koestler writes:

The manner in which Kepler arrived at his new cosmology is fascinating; I shall attempt to re-trace the zig-zag course of his reasoning. Fortunately, he did not cover up his tracks, as Copernicus, Galileo, and Newton did, who confront us with the result of their labors, and keep us guessing how they arrived at it. Kepler was incapable of exposing his ideas methodically, text-book fashion; he had to describe them in the order they came to him, including all the errors, detours, and the traps into which he had fallen. The New Astronomy is written in an unacademic, bubbling baroque style, personal, intimate, and often exasperating. But it is a unique revelation of the ways in which the creative mind works. (Sleepwalkers 318)

Koestler takes Kepler’s decision to order his book partially as a historical account to imply that the New Astronomy is not methodically arranged at all. In the terms of Coleridge’s “Essays on Method,” this assumption forces Koestler to turn Kepler, the paradigm of the imaginative thinker, into another version of Shakespeare’s Mistress Quickley. In Koestler’s view, it is precisely because Kepler’s work is so immethodically
arranged that it provides us with the material needed to understand the operation of the scientific imagination.

The view that Kepler’s *New Astronomy* provides a faithful account of the history of Kepler’s research only began to unravel by accident. Owen Gingerich planted the first seeds of doubt in an entirely unsuspecting manner. Motivated by a desire to demonstrate the power of a mainframe computer in the 1960s, Gingerich programmed a computer to perform the iterative procedure that Kepler complains cost him so much time in the above-quoted passage. While it was no surprise that the computer could perform the calculations at a much greater speed than Kepler, the curious result of Gingerich’s experiment was that it took the computer only nine iterations to converge on a solution. Kepler reports that it took him at least seventy. Gingerich initially attributed the discrepancy to Kepler’s having made some simple but costly errors in his computations. Subsequent work on the *New Astronomy* by Gingerich, Stephenson, and William Donahue demonstrates that Kepler’s book could not possibly represent the true path of Kepler’s research.101 This work has led to the view that Kepler adopted the pseudo-historical, rhetorical style as a didactic device meant to convince contemporary astronomers of the necessity of introducing celestial physics into their discipline. The false leads and traps that the narrator stumbles into, that is to say, represent the difficulties that *any* astronomer working under the familiar constraints of the old mathematical astronomy would fall into. The import of Kepler’s argument is that these difficulties can only be overcome at the cost of introducing physical principles into the discipline. James Voelkel’s *The Composition of Kepler’s Astronomia nova* provides the

101 More particularly, Gingerich examined Kepler’s manuscripts relating to his work on the orbit of Mars, Stephenson looked at Kepler’s purpose in installing a celestial physics, and Donahue discovered that Kepler presented a table of computations as a table of observations.
necessary historical context to support these claims. Voelkel carefully explains the peculiar shape of the book as the result of the interaction between (a) Kepler’s religiously based commitment to heliocentrism, diverted into an exploration of physical causes by virtue of Tycho Brahe assigning Kepler to work on the orbit of Mars, (b) the pressure applied to Kepler by the so-called Tychonics regarding what they saw as Kepler’s deliberate misuse of Brahe’s observations, and (c) the skepticism Kepler encountered regarding his celestial physics in his correspondence with the contemporary astronomer David Fabricius. Instead of viewing Kepler’s *New Astronomy* as history, contemporary scholarship now sees the text as argument, as a device meant primarily to further Kepler’s installation of a physical astronomy.

Understanding the problems inherent in the older idea that Kepler simply presents the *New Astronomy* as an unmediated account of his research does not require a comparison of the text with manuscript material, an acknowledgement that Kepler at one point passes off computed data as observations, or a detailed reading of his correspondence. That Kepler put much thought into the arrangement of his work is evident from the first pages of the introduction, which address the difficulties involved in the reading and writing of densely mathematical books. Its first sentence reads: “It is extremely hard these days to write mathematical books, especially astronomical ones” (45). Voelkel identifies the particular difficulty Kepler faced as the lack of a clear audience: he needed to appeal both to “astronomers” who were concerned primarily with mathematical astronomy and to “physicists” in his extension of physical problems to celestial motion. While this explains Kepler’s reference to “these days,” the particular problem Kepler explicates is not bound to a given time and place. It is a catch-22 for all
readers and writers of mathematical books. As Kepler continues: “For unless one maintains the truly rigorous sequence of proposition, construction, demonstration, and conclusion, the book will not be mathematical; but maintaining that sequence makes the reading most tiresome” (45). Kepler dramatizes the problem by presenting himself as a reader of his own work:

I myself, who am known as a mathematician, find my mental forces wearying when, upon rereading my own work, I recall from the diagrams the sense of the proofs, which I myself had originally introduced from my own mind into the diagrams and the text. But then when I remedy the obscurity of the subject matter by inserting explanations, it seems to me that I commit the opposite fault, of waxing verbose in a mathematical context. (45-46)

Waxing verbose occasions corresponding problems to the difficulties inherent in the brevity of mathematical demonstration. As Kepler writes: “The latter evades the mind’s eye while the former distracts it; the one lacks light while the other overwhelms with superfluous glitter” (46). These considerations lead Kepler to splitting his introduction into two parts. The first is aimed towards students of the physical sciences, and it outlines the running thread of Kepler’s project of installing physical causes into mathematical astronomy. The second, aimed at the mathematical astronomers, consists of a multi-page synoptic table or diagram that illustrates pictorially the relations of the chapters of the work to each other as well as to the whole.

Following the presentation of the synoptic table, Kepler inserts a section entitled “Summaries of the individual chapters.” Kepler does not proceed straight to the individual summaries but prefaces the section with material that forms a sort of second introduction to the organization of the volume. Kepler opens the section by writing: “Since there is one method which the nature of a subject teaches, and another which our understanding requires, and both are subject to the rules of art, the reader should expect
neither from me undiluted” (78). This repeats the dilemma that opens the first introduction. The method of presentation demanded by the subject matter is presumably a systematic, mathematical treatment, while the method of presentation demanded by the nature of readers is shaped by didactic concerns. Splitting the introduction into two parts does not sufficiently solve the dilemma. The solution requires forging a third way, one that Kepler claims is also borrowed from the art of rhetoric:

There is a third way, which I hold in common with the orators, which, since I present many new things, I am constrained to make plain in order to deserve and obtain the reader’s assent, and to dispel any suspicion of cultivating novelty. No wonder, therefore, if along with the former methods I mingle the third, familiar to the orators; that is, an historical presentation of my discoveries. (78)

As Voelkel and others point out, Kepler explicitly adopts the form of a historical presentation as itself a rhetorical device, one that he will mingle with the systematic and didactic concerns identified above. It is an open admission of the rhetorical character of the work, rather than a confession that he will simply present its unadulterated history.

What I would like to focus on is Kepler’s explication of what this historical presentation will consist in and what it will do for the organization of his work:

Here it is a question not only of leading the reader to an understanding of the subject matter in the easiest way, but also, chiefly, of the arguments, meanderings, or even chance occurrences by which I the author first came upon that understanding. Thus, in telling of Christopher Columbus, Magellan, and of the Portuguese, we do not simply ignore the errors by which the first opened up America, the second, the China Sea, and the last, the coast of Africa; rather, we would not wish them omitted, which would indeed be to deprive ourselves of an enormous pleasure in reading. So likewise, I would not have it ascribed to me as a fault that with the same concern for the reader I have followed this same course in the present work. (78)

Kepler does not state that he will present every bit of history. Rather, he will only present those false starts and meanderings through which he came to an understanding. Kepler’s invocation of voyages of exploration does a great deal of work in this passage. In the first
place, it provides a concrete example by which to understand Kepler’s undertaking. Just as Columbus’ discovery opened a “new” world, so too does Kepler’s exploration of a celestial physics open a new astronomy. The comparison allows Kepler to transfer the qualities and importance attached to the enterprises of exploration to himself as an explorer of the skies. The particular point that Kepler draws in the comparison highlights the role of meandering, error, and chance as crucial – and perhaps necessary – components of discovery. While Kepler’s strategy of implementing his physical astronomy is at play in such a framing – any astronomer will make such mistakes until and unless he introduces physical reasoning – the point also transcends this particular strategy to make a general observation about imaginative processes of discovery. If it is entertaining to the reader, it is also instructive.

That Kepler was concerned with such processes – and was not merely crafting a device meant to win others to his celestial physics – becomes more evident when the discussion is shifted away from New Astronomy. The 1611 Six-Cornered Snowflake – published two years after the New Astronomy – provides an especially rich case history insofar as Kepler has no specific scientific result to relate regarding the cause of the hexagonal shape of snowflakes. The text draws attention to a phenomenon that deserves explanation – that all snowflakes have six sides – and proceeds to propose and reject a series of possible explanations, eventually leaving the problem to future inquirers. Yet the text is written in a similar style to, and presents many of the same rhetorical features as, the New Astronomy. As with the New Astronomy, Kepler cultivates the ethos of an honest seeker after truth, he makes pathetic appeals to awaken the emotion of his audience, and he unfolds the logos of the argument through a first person narrative that could not
possibly represent the true path of his research. (For example, it begins snowing twice within Kepler’s text, and no serious reader believes that these chance events were timed such that the first occurred at the exact moment Kepler was crossing Prague’s iconic Charles Bridge in need of a phenomenon that matches the general characteristics of snowflakes and that the second occurred at precisely the moment in his argument that he needed further observation of a snowflake to lead him out of a false path whose promise had been exhausted).

While Kepler scholarship turns to the immediate context of composition in order to explain the particular, rhetorical shape of the New Astronomy, many of these same rhetorical devices may be found in a text which is not astronomical, does not attempt to change the foundation of a science, and reaches no satisfactory conclusions regarding the phenomenon it investigates. This suggests that at least some of Kepler’s concerns are broader than those involved in the immediate context of his work on the motion of Mars. *What takes center stage in The Six-Cornered Snowflake are precisely the imaginative procedures germane to discovery.*

Such a reading mediates the two views regarding Kepler’s manner of composition. On the one hand, it preserves the spirit of the erroneous view that Kepler’s writing provides a rich locus for the study of the imagination *because* it serves as a window through which to observe its unadulterated operation. On the other hand, it does not dismiss the diligent, historical work that properly separates Kepler’s narrative of discovery from his actual experience. Coleridge’s language, as usual, is precise enough to capture these subtleties. Kepler, in Coleridge’s estimation, provides his readers with “an account of his modes of proceeding” *(F 485)*, a phrase that is not identical to an account
of his particular path of transit. These modes include the necessity of errors and meanderings – “I will have my say, on the chance of coaxing the truth from the comparison of many false trails,” (27) as Kepler notes in the Six-Cornered Snowflake – as well as an exploration of the homology between the playfulness of nature in producing the apparently purposeless varieties of the hexagonal shape of snowflakes and his own playfulness in attempting to discover the cause of their hexagonal shape. The text is presented as “A New Year’s Gift” and is dedicated to Kepler’s friend and patron, John Matthew Wacker of Wackenfels, a court councilor for Rudolf II.102

§9.3 – Kepler’s Mode of Proceeding

In this section I summarize a small portion of Kepler’s Six-Cornered Snowflake – from his initial observation of the hexagonal structure of the snowflake through his analysis of two of three preliminary examples – to demonstrate what Coleridge calls Kepler’s “modes of proceeding.” The following section brings the writings of Coleridge, Poe, and Peirce to bear upon an analysis of this description of Kepler’s procedure.

It is noteworthy that after observing the hexagonal structure of snowflakes, Kepler does not pursue the cause of this shape directly. He instead proceeds to analyze the causes of other phenomena: “To arrive at a clear decision on these questions [concerning the shape of the snowflake], let us take familiar examples, but set them out in geometrical fashion. A parenthesis of this kind will contribute a great deal to our problem” (9). The examples that Kepler turns to – the architecture of a honeycomb, the shape of a

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102 Robert Westman notes that Wacker was one of Giordano Bruno’s patrons when the latter visited Prague in 1588 (400). An examination of Wacker as the mediating figure of Bruno’s thought to Kepler is provided by Granada.
pomegranate seed, and the patterns found in the distribution of flower petals – perform three different functions with respect to the later snowflake investigation. In the first place, these examples delimit the logical space in which Kepler will pursue the cause of the shape of the snowflake. That is to say, the three examples each admit of a different type of cause and so provide a template of the kinds of potentially acceptable answers. Second, the three examples allow Kepler to familiarize his readers both with the sort of questions that he asks and with the standards of evidence that he employs. Finally, the particular content of these examples play a role in his investigation into the cause of the shape of the snowflake.

While Kepler’s so-called parenthesis is thus a useful and necessary preliminary, it is also a prime example of what Coleridge characterizes in the “Essays on Method” as a “due mean or balance between our passive impressions and the mind’s own re-action on the same” (F 453). The observation of a snowflake reveals a six-sided pattern; this observation propels Kepler’s mind to consider possible connections to other six-sided phenomena, such as a honeycomb; this mental reaction, in turn, prompts further observation of the honeycomb; the new pattern disclosed by observation of the honeycomb causes another mental re-action, leading to another observation, and so on. As we will see in the following section, Kepler’s movement through his examples, like the alternating motion of Coleridge’s famous water-insect (passive resistance to the current, followed by active, upstream propulsions), provides another emblem for the activity of the imagination.

Kepler’s initial observation is triggered by a chance event. Kepler reports that he was crossing the Charles Bridge, his mind preoccupied with his lack of a New Year’s gift
to present to Wacker, when it started snowing. “In such anxious reflection as this,” Kepler writes, “I crossed the bridge, embarrassed by my discourtesy in having appeared before you without a New Year’s present…. Just then by happy chance water-vapor was condensed by the cold into snow, and specks of down fell here and there on my coat” (7). Kepler’s observes a geometrical pattern within the snowflakes on his coat: “all with six corners and feathered radii” (7). The numerical pattern promises a fruitful geometrical analysis, and such an analysis would constitute an appropriate gift from Kepler, the Imperial Mathematician, to his friend and patron Wacker.

Kepler’s mental reaction to the observation of this pattern is to connect the six-sidedness of a snowflake to six-sidedness of a honeycomb. This connection prompts a detailed observation of the latter. That the honeycomb is built upon a six-sided plan is evident at a glance. The opening of each individual cell of the honeycomb approximates a regular hexagon. The opening to each cell is surrounded by six other hexagonal openings.

![Figure 7. The stacking of 7 regular hexagons. The six-sided figure is surrounded completely by six other such figures.](image)

This pattern is repeated throughout the surface of a honeycomb. As suggested by the diagram, a surface may be completely covered by regular hexagons. That is to say, the

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103 To say that a polygon is “regular” is to designate that all its sides are of equal length and all its angles are of equal measure.
reiteration of the shape of a regular hexagon may fill a plane surface without leaving any gaps or holes between the repeated figure.

The filling a plane without remainder is, of course, an intriguing property to an Imperial Mathematician. The filling of a plane surface with geometric shapes is called a tessellation, after the Latin *tessella* as the name for the square piece of clay or glass used in the creation of mosaics. Some of the most striking and well-known examples of tessellation occur in the decorative, interlocking geometrical tiles of Islamic art, and, though they were constructed far after Kepler’s time, in the woodcuts of M. C. Escher. The practice of tessellation extends back to ancient history, and, through the work of bees, far beyond. One of the first mathematically rigorous treatments of tessellation is provided by Kepler in his 1618 *Harmonices Mundi*.
Kepler there demonstrates that the only regular polygons that tessellate the plane are the triangle (“D” in his diagram above), the square (“E”), and the hexagon (“F”). The pentagon and heptagon do not fill the space without overlap, as shown in the figures labeled “H” and “I.”

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104 From *Harmony of the World* (104).

105 Kepler establishes that these three figures may be used to fill the plane in *Harmony of the World* as follows: “For by [proposition] XXXIII of the first book of this work the angle of a trigon [regular triangle] is two thirds of a right angle, therefore the six angles of six trigons are twelve thirds, that is four whole right angles. See D. Similarly, the angle of a tetragon [regular square] is one right angle, therefore the four angles of four tetragons make four right angles. Similarly, the angle of a hexagon is eight sixths of a right angle, therefore three angles of three figures make twenty four sixths, that is four right angles. See F” (103).

106 Kepler rules out the use of any other regular polyhedron as a plane-filling figure in *Harmony of the World* as follows: “But the angle of a pentagon is less than that of a hexagon, therefore three of them are less than four right angles and leave a gap. The angle of a pentagon is larger than that of a tetragon, therefore four pentagon angles are more than four right angles, therefore they cannot be contained around a point in a plane, by [proposition] XVI of this book. For this see H, where the fourth pentagon is shown dotted. Similarly, the angles of a heptagon and of all larger figures are greater than that of a hexagon, so
The observation of the hexagonal structure of the surface of the honeycomb prompts a mental reaction in the form of a geometrical demonstration of the ways in which space may be filled. This in turn suggests one reason for the cause of the shape of the honeycomb: “A plane surface can be covered without gaps by only three shapes, the triangle, the square, the hexagon. Of these the hexagon is the roomiest, and it is room for storing honey that the bees provide themselves with” (19). To avoid ambiguity, it should be noted that Kepler is not claiming that the bees consciously decide to build hexagonally so as to maximize the amount of honey that may be stored. The bee builds by instinct, and the purpose under consideration for Kepler is that which the “bee’s creator had in mind when He prescribed to it these canons of architecture” (19).

Kepler rejects this proposed cause as a sufficient explanation for the architecture of a honeycomb. It substitutes a widely known fact about the surface of the honeycomb for an explanation of the entire structure. As Kepler writes: “This [roominess of the hexagon in comparison with the square and triangle] is a matter of common knowledge among natural philosophers, who pay attention to the hexagonal structure only as it presents itself outwardly with its openings” (19). Roominess, at best, provides only a partial explanation. What is required is further observation of the entire, three dimensional structure of the honeycomb.

The front and back of a honeycomb look the same. The individual cells, however, do not run the entire length of the honeycomb. It is not possible for a bee to enter at the front of the honeycomb and exit at the back. There is a partition that closes off every cell. Consequently, the way in is, for the bee, the only way out. Kepler draws particular

three heptagon angles are more than four right angles. See I, where two of the heptagons partly overlap in the plane” (103).
attention to the design of the partition at the end of a cell. The partition does not simply divide the base of one cell from the base of another cell on the opposing side of the honeycomb. The cells on the opposing sides do not match-up in such a manner because the partition is not flat like a wall in a house that separates two rooms on the same floor. Rather, it is three-dimensional, consisting of three identical plane surfaces that each form a shared wall with a different cell on the opposing side of the honeycomb.

![Diagram of a honeycomb cell](image)

Figure 9. A diagrammatic representation of the base of a honeycomb cell as looked at from above and from the side.

As Kepler writes: “But when you have examined the base of the cells, you will see that each ends downward in an obtuse angle formed by three planes. Six other corners clinch this base—keel you might rather call it—each with the six walls of its cell …. The plane surfaces of the keel are always three. All are exactly alike and of the shape called the rhombus by the geometers” (9-11). The result is that each cell shares it borders with nine other cells, the six that surround its sides plus three from the opposing side of the honeycomb that share its rhombic partition.
Each of the three plane surfaces that constitute the base or keel of an individual cell is shared with one of the three cells from the opposing side of the honeycomb.

Kepler’s observation of three identical, adjoining rhombi at the base of a cell leads to another mental reaction. “These rhombi put it into my head,” Kepler writes, “to embark on a problem of geometry: whether any body, similar to the five regular solids and to the fourteen Archimedean solids could be constructed using nothing but rhombi” (11). Kepler finds that there are two such figures. The first, a rhombic dodecahedron, is constructed with twelve rhombi. The second, a rhombic triacontahedron, is constructed with thirty rhombi.
It is the first figure, the rhombic dodecahedron, that attracts Kepler’s particular interest. For just as the triangle, square, and hexagon are shapes that are capable of filling a plane without remainder or overlap, so does the rhombic dodecahedron fill three-dimensional space. As Kepler argues: “with rhomboid solids of the first kind every four corners formed by the obtuse [120°] angles of the rhombi on three planes and every six [formed by the acute (60°) angles of the rhombi] on four planes do the same [fill space]. Thus a solid space can be filled by using nothing but these rhombi, such that always four three-sided corners [formed by three intersecting planes] meet at one and the same point, and a certain volume is completed” (11). Observation of the base of the cell of a honeycomb prompts Kepler to consider a geometrical problem, and this problem, in turn, allows him to observe the honeycomb in a new light.

An examination of the surface of the honeycomb reveals a tessellation of the plane by means of regular hexagons. The hexagons are the roomiest of the plane filling, regular polygons. An examination of the base of the cells of a honeycomb reveals, on the basis of Kepler’s mental reaction, the construction of a rhombic dodecahedron. Kepler

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107 See *Harmony of the World* (118).
writes: “This, I repeat, is the figure which bees form in their combs, with only this exception that the cells have not got roofs of the same kind as their keel” (11). If the bees did not make this exception, they would, of course, remain trapped in the honeycomb. Because the bees cannot enclose themselves, Kepler writes that “there was nothing to prevent their prolonging the six walls in each cell on the scale of their own body beyond the limit of the rhombi in the keels” (11). Observation and consideration of the base of the cells of a honeycomb show that bees practice a more complex geometry than might be expected from a glance at the honeycomb’s hexagonal surface.

Before using this information to argue for the appropriate cause of the shape of the honeycomb, Kepler connects the rhombic dodecahedron with another object: the seed or loculus of a pomegranate. “Again, if one opens up a rather large-sized pomegranate,” writes Kepler, “one will see most of its loculi squeezed into the same shape, except in so far as the pattern of veins, by which their nourishment is supplied, gets in the way” (13). Just as Kepler’s discovery of the hexagonal structure of the snowflake leads him to a consideration of the hexagonal structure of a honeycomb, so too does Kepler’s discovery of a rhombic dodecahedron in the structure of a honeycomb lead to a consideration of the similar shape in a pomegranate seed. The isolation of the rhombic dodecahedron in the two examples opens an inquiry into the cause the figure.

The first step in Kepler’s investigation is to eliminate simple “matter” as the cause of the figure. Bees do not find “rhomboid” shapes ready-made to use in the construction of the honeycomb. Similarly, the pomegranate seed does not come prepackaged in the shape of a rhomboid. Rather, all berries are naturally round unless an agent shapes them otherwise. To answer the question concerning the cause of the shape of the pomegranate
seed, Kepler pictures the material conditions responsible for the growth of the seeds inside of the hardening rind of the fruit:

For the loculi to begin with, when they are small, are round, so long as there is enough space for them inside the rind. But later as the rind hardens, while the loculi continue to grow, they become packed and squeezed together, just as peas do too within their oblong pods. But peas have no direction in which to give way, as they are set in a row inside their oblong ponds: so they are squeezed from only two sides. The round loculi in pomegranates, however, from the start get more freedom in space and easily work their way into place. (13)

Could the material conditions of its growth – a number of soft, round, and expanding berries constricted in all directions by a hard rind – cause the rhomboid shape of the pomegranate seed?

The question turns on Kepler’s active examination of the mathematics of the close-packing of spheres. Kepler begins this mental re-action by comparing two different packing arrangements.

![Figure 12. Kepler's diagram of two packing arrangements.](image)

In the “A” or “four-cornered” arrangement, each sphere is surrounded by four other spheres. In the “B” or “three-cornered” arrangement, each sphere is surrounded by six other spheres. Kepler notes that these are the only two possible arrangements: “[w]ith a five-sided pattern uniformity cannot be maintained. A six-sided pattern breaks up into

\[108\] See *The Six-Cornered Snowflake* (14).
three-sided. Thus there are only two patterns as described” (15). If the spheres are malleable and pressure is applied from all directions, then the spheres in the “A” arrangement will be transformed into cubes while the spheres in the “B” arrangement will be transformed into rhomboids. As Kepler writes: “Now if one encloses in a round vessel a number of round pellets of equal size and of soft stuff, and then begins to tighten it all round … a great many pellets will be pressed into a rhomboid shape …. If you have a pattern of pellets at right angles that cannot be disrupted, you will by applying pressure even produce cubes” (13). Kepler notes that the pomegranate seeds are filled with liquid and not held or restricted in the “A” or “four-cornered” arrangement. As pressure is applied, they can easily shift shape to occupy remainders of space. Kepler states – but does not prove, though the fact seems apparent once pointed out – that the “B” arrangement provides a closer or tighter pack than the “A” arrangement”: “The packing [of the “B” arrangement] is the tightest possible, so that in no other arrangement could more pellets be stuffed into the same container” (15). The fact that the “B” arrangement both produces the rhomboid shape and constitutes the tightest pack sufficiently explains the cause of the rhombic shape of the pomegranate seed. As Kepler writes: “It is therefore obvious that the loculi of the pomegranate are squeezed into the shape of a solid rhomboid: the demands of their matter coincide with the proportions of their growth” (17). Because a material reason was found that accounts for the shape of the pomegranate seed, it is unnecessary to consider more complex causes. If such a cause were not found, then Kepler would attempt to discover why what he calls “the inner

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109 This statement became known as “Kepler’s Conjecture.” It was an object of intense interest among mathematicians because it seems intuitively obvious yet is notoriously difficult to demonstrate. It was even included as one of the so-called Hilbert Problems. A “proof” – unusually burdensome and not yet entirely accepted – was only achieved in 1998.
principle of soul in this tree” prefers the shape of the rhomboid and so directs its construction (19). With the reasoning already performed, however, the first of Kepler’s three preliminary examples is complete.

The architecture of the honeycomb cannot be understood in the same way. The growing bee larvae are not rolled together to assume a close pack in the same manner as the pomegranate seeds. Passive observation is enough to show that bees construct the honeycomb from the foundation up. The first cause Kepler examined to account for the honeycomb was that the hexagonal shape of the opening of the cells provide the most room to store honey, as the hexagon is the roomiest of the shapes that tessellate the plane. While that reasoning ignored all but the outer surface of the honeycomb, Kepler notes that the same cause may be extended to the entire three-dimensional structure. Just as the hexagon is the roomiest of the regular polygons to fill the plane, so is the rhombic dodecahedron the roomiest of the nearly regular figures (namely, it is roomier than the cube) that completely fills space. Yet Kepler rejects the extension of this cause as well. If the goal was simply to maximize room for storage, at least one of the bees would build a circular or spherical cell. “What need,” Kepler asks, “is there to run after the tiniest remainders of space as if there were no room to spare in the whole hive?” (19). Whereas the pomegranate seeds are confined in space by the circumference of the rind, bees are under no such space restriction but may extend the size of the honeycomb.

Kepler explains the shape of the honeycomb by appealing to a principle of minimizing the labor required to construct it. “Labor is saved,” Kepler writes, “if there are always two bees to build the party-wall” (19). Kepler’s principle means that every part of every wall must be shared by two bees. This implies that space must be filled
completely, and so rules out the possibility of a spherical cell with a circular opening. Because labor must be saved, space must be filled; since space is filled, no gaps may exist into which cold air might permeate.

There are two possible regular figures – the rhombic dodecahedron and the cube – that fill space. The space-filling figure formed by the base of the cells determines the shape of the openings of the individual cells. If the honeycomb were built around a cubic arrangement, then the cells and their openings would be square. If, on the other hand, the honeycomb were built around a rhombic arrangement, then the cells and their openings would be hexagonal. Does the principle of saving labor also account for the employment of the rhombic arrangement? This may be determined by comparing the maximum number of walls an individual cell shares with other cells under both arrangements. In the cubic arrangement, each cell shares a border with a maximum of eight other cells: one to each of the four sides of the cubic cell, and a maximum of four at the square base (if the opposing sides of the honeycomb are staggered both horizontally and vertically). In the rhombic arrangement, each cell shares a border with nine other cells: one around each of the six sides of the hexagonal cell, and three at the rhombic faces that constitute its base. Kepler thus considers the principle of saving labor as “the essential purpose of the rhomboid shape in beehives” (19) because it is sufficient to account for all of the features that he has taken notice of. Kepler even notes that this principle was recognized, though its implications were not fully understood, in Virgil’s line in the Georgics about bees owning the roofs of their cities as one (“consortia tecta / Urbis habent”). The principle of saving labor thus provides a sufficient cause of the shape of the honeycomb and closes the second of Kepler’s three preliminary examples.
§9.4 – Theorizing Kepler’s “Modes of Proceeding”

Kepler’s two examples each consist in a Peircean reduction to unity. The structure of the honeycomb and the shape of the pomegranate seed are understood through two mediating representations that show the relations exhibited by particular qualities (the structure of a honeycomb and the shape of a pomegranate seed). In the case of the honeycomb, the principle of saving labor functions as an interpretant that mediates the variety of observations Kepler makes regarding its structure. The idea of tightest packing functions similarly in the case of the shape of the pomegranate seed. To see a rhombic dodecahedron as the skeletal form of a honeycomb is, additionally, a prime example of the quality that Peirce singles out as characteristic of Kepler’s imagination: it “makes the clothing and the flesh drop off, and the apparition of the naked skeleton of truth to stand revealed before him” (W 8:290).

In Coleridgean terms, Kepler brings forth two ideas as coordinated to two different functions. The ideas are causes insofar as they render intelligible the phenomena Kepler observes, and they additionally prompt the inquirer to find different realizations of the same idea elsewhere. These ideas were not deduced from the phenomenon but imaginatively inferred. An idea, for Coleridge, is only “attributed, never derived” (F 467). As Coleridge writes of gravitation: “[t]he utmost we venture to say is, that the falling of an apple suggested the law of gravitation to Sir I. Newton” (F 467). The ideas of close packing and saving labor are similarly suggested to Kepler through the honeycomb and pomegranate. Their suggestion is a result of the alternating active and
passive motions of his imagination. Once the idea has been suggested, the phenomena are seen in its light: they translucently exemplify the idea through which they are understood.

But how to characterize Kepler’s mode of proceeding? How does he move -- in a mere six pages -- from the observation that it is snowing, through a consideration of the geometry of a honeycomb, to providing a cause for the rhomboid shape of a pomegranate seed? Kepler’s procedure may be represented through the balance of observation and mental reaction that Coleridge discusses in his “Essays on Method”:

**Observation:** Snowflakes all have six sides.

**Reaction:** What other phenomena possess a hexagonal structure?

Honeycomb!

**Observation:** The regular hexagons that are approximated by the openings of the cells of the honeycomb completely fill the plane.

**Reaction:** A mathematical treatment of tessellation reveals that the honeycomb is the roomiest of the three, plane-filling regular polygons.

**Observation:** The base of the cells in the honeycomb have a different structure than the openings. Namely, the base is constituted by three identical rhombi.

**Reaction:** Is it possible to construct a figure similar to the Platonic solids that uses these rhombi as its faces? Yes, two such figures may be constructed, and one of them, the rhombic dodecahedron, fills space in the same manner that the regular hexagon fills the plane.
**Observation:** The shape of the pomegranate seed approximates the rhombic dodecahedron, even though the seed begins as a sphere and so is transformed sometime during its growth within the rind.

**Reaction:** An examination of the mathematics of close packing suggests the cause of the rhomboid shape of the pomegranate seed.

It is crucial to note that each reaction is both dependent upon but in no way determines the preceding observation. Coleridge’s statement that method results from a balance of observation and reaction suggests that Kepler’s procedure is methodological, but it does not provide a detailed means to characterize that procedure.

The question concerning Kepler’s procedure is sharpened, though not solved, by the methodological considerations that Poe uses to open “Murders in the Rue Morgue” and *Eureka*. In the former text, Poe focuses attention on what he calls “the faculty of resolution” as responsible for the analytic ability that is exemplified in the activity of his detective. Poe claims that the faculty is both aligned with Coleridge’s idea of imagination -- “the truly imaginative [are] never otherwise than analytic” (*Poetry* 400) -- and enhanced by the study of mathematics. It is this faculty that Kepler would seem to employ in *The Six-Cornered Snowflake*. The problems of close-packing and minimizing labor have already been solved by the pomegranate and the bees’ construction of their honeycomb. Kepler’s task as scientific detective is, literally, to re-solve these problems as the means of understanding his observations. While the results of this faculty appear to convey “the whole of air intuition,” Poe urges that they are in fact “brought about by the very soul and essence of method” (397).
The letter from “2848” that prefaces *Eureka* clarifies the nature of analytic ability by demonstrating that it cannot be situated within mid-nineteenth century accounts of induction and deduction. Poe characterizes induction as the observation and classification of facts, likening it to crawling as a process that is sure of foot but never gets anywhere. Deduction is characterized as the inference of results from axioms; it not only proceeds almost as slowly as induction, but its conclusions are only as valid as the supposed truths of the axioms that it simply presumes. Neither method is responsible for important scientific discoveries. These advances are only made, Poe argues, “by seemingly intuitive *leaps*” (1264). These leaps are consonant with the forward propulsions of Coleridge’s water-insect and with Kepler’s mental reactions as described above. Poe provocatively writes that

Had [Kepler] been asked to point out either the *deductive* or *inductive* route by which he attained [the three laws of planetary motion], his reply might have been—‘I know nothing about *routes*—but I *do* know the machinery of the Universe. Here it is. I grasped it with *my soul*—I reached it through mere dint of *intuition*.’ (1270)

Poe argues that Kepler’s mode of procedure cannot be properly understood as either inductive or deductive. Poe characterizes it as a form of “seemingly intuitive *leaps*” that are aligned with both imagination and guessing, but does not offer a more complete theorization.

A fuller description of Kepler’s procedure may be drawn out of Peirce’s analysis of “museum” from his 1908 “Neglected Argument” as the name for the mental activity that consists in “considering some wonder in one of the Universes or some connection between two of the three, with speculation concerning its cause” (*EP* 2:436). This activity matches the section from *The Six-Cornered Snowflake* summarized above: Kepler
considers the hexagonal structure of the honeycomb and the rhomboid shape of the pomegranate seed and suggests a cause for these two wonders. The chief difficulty in applying Peirce’s notion of musement to Kepler’s procedure is that the contents of Peirce’s article are oversaturated with his triadic architecture. Peirce’s above-quoted description of musement not only invokes the potentially confusing notion that there are three different universes, but musement itself is presented as one category in a tripartite division of the forms of play. The difficulties are not insoluble -- Peirce’s three universes, for instance, merely describe three different modalities of being – though it often requires some work to extract useful tools from a pattern of thought that goes so far as to delimit three kinds of pessimists.

As we have seen, Peirce (along with Coleridge and Poe) holds that important scientific advances are made through abductive (or imaginative or analytic) inferences that cannot be analyzed in terms of deductive and inductive processes. They in fact provide the material without which such processes could not run. Peirce’s idea of musement describes this activity as a form of play. While there are strong echoes of Schiller’s spieltreib, and through Schiller to Kant’s free play of the imagination and understanding, in Peirce’s idea of musement,¹¹⁰ the significance of play in the “Neglected Argument” is that it consists in a “lively exercise” with no built-in rules or constraints. In the case of musement, this activity is specifically directed toward the discernment of causes. Peirce’s depiction of the process provides a close match to Kepler’s procedure in the Six-Cornered Snowflake: “It begins passively enough with drinking in some impression of some nook in one of the three Universes. But impression soon passes into attentive observation, observation into musing, musing into a lively give-and-take of

¹¹⁰ These claims are most clearly argued in Kaag’s Thinking Through the Imagination.
communion between self and self” (*EP* 2:436). In much this fashion, Kepler’s passive notice of falling snow soon turns into an active observation of its six-sidedness which flowers into speculation concerning the cause of other natural wonders that then advances through a dialogic give-and-take similar to the alternating motion that Coleridge highlights. Peirce states that this dialogic give-and-take is “not a conversation in words alone, but is illustrated, like a lecture, with diagrams and experiments” (*EP* 2:437); Kepler’s diagrammatic experimentation in the *Six-Cornered Snowflake* nicely illustrate this component of the play of musement.

Peirce’s useful differentiation between “argument” and “argumentation” from the “Neglected Argument” further clarifies the nature of Kepler’s procedure. In Peirce’s usage, argumentations form a specialized class of arguments. The broader class of arguments encompasses “any process of thought reasonably tending to produce a belief.” (*EP* 2:435). The more restrictive class of argumentations is limited to those arguments that proceed from “definitely formulated premises” (*EP* 2:435). All argumentations are arguments, but not all arguments are argumentations. Kepler’s demonstration in *Harmonices Mundi* that the regular hexagon tessellates the plane is an example of argumentation. It reaches a conclusion that impels belief through a process that employs a set of definable premises. Kepler’s postulation of close-packing as the cause of the shape of the pomegranate seed, on the other hand, does not meet the rigorous standards of an argumentation. It still counts as an argument, however, because it embodies a process of thought that produces a belief in close-packing as the cause of the shape of the pomegranate seed. The play of musement is always a form of argument but never a form of argumentation.
Because musement as a form of play has no built-in constraints or rules, it is not possible to predict its course in advance. Peirce notes in the “Neglected Argument” that “[d]ifferent people have such wonderfully different ways of thinking that it would be far beyond my competence to say what courses Musements might not take” (*EP* 2:437). It is not just that the matter is beyond Peirce’s competence. Musement, by definition, is not limited to particular channels. This fact is reinforced by its connection to the first of three stages of inquiry within Peirce’s architectonic. As Peirce writes elsewhere of the category of Firstness: “remember that every description of it must be false to it” (*W* 6:170). As a first in a Peircean triad of inquiry, to dictate the path that musement will follow before that path has been traversed is to spoil the very idea of musement. Every attempt to so trace its path in advance would rob musement of the law of liberty that constitutes the very activity of play. Accordingly, Peirce states that “there is no kind of reasoning that I should wish to discourage in Musement” (*EP* 2:437).

To note that the path of musement cannot be provided in advance is emphatically not to claim that its play is immethodical. Much of the difficulty pertains to how the Greek Μέθοδος, understood as a way or path of transit, is concretized into the notion of travel along an already demarcated road. Such a move, in Coleridge’s terms, always forestalls the power of an idea by locking it into the form of a particular conception or instantiation. If method is confined to movement along a well-marked path to a destination already stipulated in advance, then the play of musement cannot be methodical because it is, by its very nature, under no obligation to stay within the contours of the road. This difficulty is present in the letter in Poe’s *Eureka*, which, unable to move beyond the concretization of method as travel along a demarcated road, can only
contrast such crawling with “seemingly intuitive” leaps. Peirce’s figuration of the play of musement in “Neglected Argument” changes both the mode and means of transport:

“Enter your skiff of Musement, push off into the lake of thought, and leave the breath of heaven to swell your sail. With your eyes open, awake to what is about or within you, open conversation with yourself” (EP 2:437). In Peirce’s metaphor, the play of musement is likened to a small boat. It does not convey the inquirer along a predetermined route. Rather, one sets off across the lake of thought. The metaphor of a lake of thought that one traverses is consonant with Peirce’s statement in “Some Consequences of Four Incapacities” that “just as we say that a body is in motion, and not that motion is in a body, we ought to say that we are in thought, and not that thoughts are in us” (W 2:227).

To be in thought is not a passive journey. It requires open eyes and an alertness to both the external and internal worlds. While the ship of musement is powered by a wind that, as Peirce notes earlier in the article, “bloweth where it listeth” (EP 2:436), the inquirer possesses the freedom to help steer or navigate the vessel. Propelled by the wind of the observation that snowflakes are all six-sided, Kepler steers his play to what is, for him, another familiar instance of hexagonal structure, that within the honeycomb. The same applies to his observation of pomegranate seeds or his mathematical examination of the tessellation of the plane. The play of musement does not dictate any one of these particular turns or navigations. It merely requires the alertness of mind or lively mental exercise necessary to make such turns and so keep moving within thought.

§9.5 – “Nature Plays”: Kepler on the Tautegorical Character of Imagination
I claimed earlier that Kepler’s three preliminary examples delimit the logical space in which he works by providing a template of kinds or types of causes. In his initial speculation concerning the cause of the shape of the snowflake, Kepler implicitly provides an outline of this template through a series of questions.

Since, then, we agreed that the cause of the imposed six-cornered shape lay with an agent, we of course wondered what that agent was, and how it acted: could it be as immanent form or as efficient cause from outside? did it stamp the six-cornered shape on the stuff as the stuff demanded, or out of its own nature—a nature, for instance, in which there is inborn either the idea of the beauty inherent in the hexagon or knowledge of the purpose which that form subserves? (9)

The order of these questions is not random. They function as a sort of procedural guide for inquiry into the cause of any phenomenon. The first question concerns whether the cause is found in the material itself or whether the cause lay with an agent. If the cause is found in the material, then the inquiry may stop. If, on the other hand, the cause lay with an agent, the inquirer moves on to a second question. This question concerns whether the agent works externally as an efficient cause or internally as immanent form. Again, if the agent is found to work externally as efficient cause, then the inquiry is complete. If not, then the inquirer must move to the third question. If the agent works as immanent form, then the cause may be derived either from knowledge of the purpose served by that form or else in what Kepler calls the idea of beauty inherent in the form. The procedure implied in Kepler’s questions becomes clearer when placed in diagrammatic form:
The diagrammatic representation makes evident that Kepler’s particular questions, provide, in their outline, both a sort of procedural decision tree as well as a map of kinds or types of causes.

Kepler’s speculations concerning the causes of the shape of the pomegranate seed and the honeycomb follow these lines. In the case of the pomegranate seed, Kepler first dismisses the notion that the material itself is the cause of the rhomboid shape by noting that the seeds are originally round. The cause therefore lay with an agent, in this case an external one: the hardening of the rind forces the rhomboid shape as the seeds expand. Kepler’s investigation into the cause of the honeycomb unfolds by the same procedure. The shape of the honeycomb is not caused by the material, as bees find neither hexagonal cells nor rhomboid planes with which to construct their dwellings. Nor does the agent lay in an external, efficient cause; it acts internally as the bees construct their own dwelling. Kepler finds the purpose of the honeycomb in the principle of saved labor. Because
Kepler finds a purpose in the shape of the honeycomb, he claims that further speculation is no longer necessary. As Kepler writes, the utility of the shape is “sufficient to excuse me from arguing at this point about the perfection, beauty, or dignity of the rhomboid, or from bestirring myself to conjure up, from a meditation on the shape that the bee builds, the inner nature of its diminutive soul” (19). The beauty or special quality of the shape, in such a case, would be a window or sign of the soul responsible for creating it.

This final preliminary example pertains to the prevalence of five-sided patterns within many plants and trees. As Kepler describes the phenomenon:

On the other hand we may ask why all trees and bushes—or at least most of them—unfold a flower in a five-sided pattern, with five petals. In apple- and pear-trees this flower is followed by a fruit likewise divided into five or into the related number, ten. Inside there are always five compartments for the reception of the seeds, and ten veins. This is true of cucumbers and others of that kind. (21)

Whereas Kepler found that an outside, efficient cause and knowledge of the purpose served by a shape accounted, respectively, for the shapes of the pomegranate seed and the honeycomb, he insists that, in this example, “a consideration of the beauty or special quality of the shape that has characterized the soul of these plants, would be in place” (21).

The explanation that Kepler provides is radically condensed and more difficult to follow than his speculations concerning other causes. I will present the explanation once in its entirety – it is less than two paragraphs – before attempting to explicate Kepler’s reasoning in more detail. As Kepler explains:

Of the two regular solids, the dodecahedron and the icosahedron, the former is made up precisely of pentagons, the latter of triangles but triangles that meet five at a point. Both of these solids, and indeed the structure of the pentagon itself, cannot be formed without the divine proportion as modern geometers call it. It is so arranged that the two lesser terms of a progressive series together constitute the third, and the two last, when added, make the immediately subsequent term and so
on to infinity, as the same proportion continues unbroken. It is impossible to provide a perfect example in round numbers. However, the further we advance from the number one, the more perfect the example becomes. Let the smaller numbers be 1 and 1, which you must imagine as unequal. Add them, and the sum will be 2; add to this the greater of the 1’s, result 3; add 2 to this, and get 5; add 3, get 8; 5 to 8, 13; 8 to 13, 21. As 5 is to 8, so 8 is to 13, approximately, and as 8 to 13, so is 13 to 21, approximately.

It is in the likeness of this self-developing series that the faculty of propagation is, in my opinion, formed; and so in a flower the authentic flag of this faculty is shown, the pentagon. I pass over all the other arguments that a delightful rumination could adduce in proof of this. They deserve a place of their own. Here and now I provide this preamble by way of example only, so that we should be the better equipped and practiced for research into the six-cornered shape of the snowflake. (21)

Kepler’s initial move is standard for him: a consideration of five-sided patterns in the Platonic solids. While the dodecahedron is, of course, made up of faces that are regular pentagons, one can also find the outline of pentagons in the bases of the five triangles that meet in a point on the icosahedron. As Kepler himself notes, his interest in this example is not in these two solids so much as in the regular pentagon itself. Kepler claims that the very structure of the regular pentagon is tied to the divine proportion or golden ratio. The claim is, unfortunately, not explained. The golden ratio is formed when, for two numbers $a$ and $b$, the ratio of the larger number to the smaller number ($a/b$) is equal to the ratio of the sum of the two numbers to the larger number ($(a+b)/a$). What does this have to do with the structure of a regular pentagon? If one connects two non-adjacent points in such a figure, then the length of the line that connects these points forms the golden ratio in comparison with the length of the line between two adjacent points in the pentagon.
In explaining the golden ratio, Kepler notes its connection to the Fibonacci sequence. The sequence is formed by adding together the two previous numbers in the sequence: 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, etc. As Kepler notes, the numbers formed from the ratio of two consecutive numbers in Fibonacci sequence (1/1, 2/1, 3/2, 5/3, 13/8, 21/13, 34/21, etc.) approximate the golden ratio. The approximation becomes more exact the further one progresses in the sequence of ratios. Having established these connections, Kepler quickly concludes his reasoning: “It is in the likeness of this self-developing series that the faculty of propagation is, in my opinion, formed” (21). Kepler seems to say that the propagation of flowers either resembles or partakes of the nature of the propagation of the Fibonacci sequence. It is because the golden ratio is implied in the construction of the pentagon, according to Kepler, that one finds flowers with five-sided patterns in many plants and trees.

This seems tenuous, but Kepler’s procedural decision-tree implies that it is only offered as an explanation because the cause could be found neither in the material, nor in an external agent, nor in a purpose that the five-sided petals appear to fill. Hence speculation into the beauty or special quality of the shape is required. Kepler,
additionally, claims that there are other supporting reasons, but does not consider his
treatise on the shape of the snowflake as an appropriate venue to articulate them: “I pass
over all the other arguments that a delightful rumination could adduce in proof of this.
They deserve a place of their own” (21).

While it is difficult to understand how the power of propagation in plants might
be formed in the likeness of the self-developing character of the Fibonacci sequence,
Kepler’s speculations at least suggest a close connection between that sequence and
certain qualities of plants, especially those related to leaves. Such connections – now
formally studied as part of botanical phyllotaxis – abound. It is not just, as Kepler points
out, that the number of petals on a flower are, more often than not, Fibonacci numbers,
with five being the most prominent. These numbers are apparent elsewhere. The seed
head of a sunflower, for instance, creates an optical pattern of criss-crossing spirals. The
number of clockwise and counterclockwise spirals are always successive Fibonacci
numbers. Such Fibonacci spirals are readily visible on everything from pinecones to
pineapple rinds. Fibonacci numbers are additionally apparent in the number of successive
branches from the stem of certain flowers as well as in the number of leaves put forth by
each successive level of branching by these flowers. Cases of Fibonacci phyllotaxis are
now understood as a necessary consequence of maximizing the spatial distance between

111 Kepler is aware that this rule is not hard and fast, and he examines counterexamples in search of salient
differences: “For white lilies are formed with petals in threes and sixes, and are not sterile; likewise many
calices of flowers, for the most part wild—unless perhaps there is this difference, that the fruit from a five-
cornered flower grows fleshy as with apples or pears, or pulpy as with roses and cucumbers, in which the
seeds are tucked away inside the flesh or pulp. But from a six-sided flower nothing is born but a seed in a
dry satchel, and the fruit is virtually in the flower. Or this is perhaps the difference, that among trees and
bushes there is no six-cornered flower, but only among vegetables and as a rule the ones with bulbs. Some
botanist might well examine the saps of plants to see if any difference there corresponds to the shapes of
their flowers” (43).
the position of new leaves. This contemporary account provides an explanation of the
same sort that Kepler gives for the structural shape of the honeycomb.

With his three preliminary examples in place, Kepler at last proceeds to speculate
on the cause of the snowflake’s hexagonal structure. There is no need to trace his path of
musement in exact detail. It is playful (leading to discussions of everything from the
formation of hoar-frost along the cracks of broken windows in Turkish bathhouses to the
geometrical shapes of diamonds and other minerals excavated from mines) while
following the procedural method implicit in his list of questions (from consideration of
cause in the material, followed by an attempt to identify possible external agents, through
speculation concerning an internal purpose served by the shape, before stopping with
remarks on the special quality or beauty of snowflakes). There is one methodological
move that Kepler makes, however, that is worth singling out. Even though Kepler knows
that snowflakes are flat, he pursues the notion that they are in fact three-dimensional. He
names this “a valueless notion” (25), even at the time he introduces it, but states that he
will nevertheless “push this notion as far as it will take me, and only afterwards shall I
detect its truth” (25). Kepler’s justification of this procedure is his hope that the notion
will lead his play of musement to unseen connections that may be relevant to the problem
at hand. He later identifies this as “the chance of coaxing the truth from the comparison
of many false trails” (27). The pursuit of a false trail obeys the law of liberty that
underlies musement. The play of musement is, in this respect, the only form of reasoning
that allows such deviations. It also connects with Kepler’s invocation of the errors and
false meanderings of voyages of exploration in his introduction to New Astronomy. In the
case of the snowflake, the assumption that they are three-dimensional allows Kepler to

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112 See G. J. Mitchinson’s “Phyllotaxis and the Fibonacci Series” (275).
connect his speculation to his earlier consideration of the close packing of spheres. If water droplets are both spherical and cubically arranged, then their hexagonal shape could conceivably be accounted for by the penetration of cold into the gaps within the packing. Kepler ultimately rejects this packing explanation, both because there is no reason why water-vapor would arrange itself in that manner and because observation shows that snowflakes are not uniformly sized. Yet before dropping the “valueless” notion that snowflakes are three-dimensional, Kepler searches in vain for an explanatory analogy between the aptness of six directions in animals in the hope that he will find a suggestive relation useful to the problem at hand. As Coleridge notes of the secondary imagination: “where this process [of re-creation] is rendered impossible, yet still at all events it struggles to idealize and to unify” (BL 1:304).

Kepler is ultimately unable to discover either an external, efficient cause for the hexagonal structure of snowflakes or a purpose served by the snowflake’s shape. He therefore insists that an answer must come from a consideration of its soul. The inner soul of a snowflake, is, in Kepler’s analysis, from the soul of the planet Earth: “There is then a formative faculty in the body of the Earth, and its carrier is vapor as the human soul is the carrier of spirit: so much so that no vapor ever exists without being bound by a formative principle” (33). Kepler’s notion that the earth is an animate being is treated at greatest length in *Harmony of the World*. He extends the analogy as far as he can:

As this analogy succeeded, the result was that I pursued it further, comparing the bodies of animate beings with the body of the Earth as well. I saw that all the many things which come from the body of an animate being and testify that there is a soul in it, also come from the body of the Earth. For as the body puts out hairs on the surface of its skin, so the Earth puts out plants and trees; and lice are born on them in the former case, caterpillars, cicadas, and various insects and sea monsters in the latter. And as the body displays tears, mucus, and earwax, and also in places lymph from pustules on the face, so the Earth displays amber and
bitumen; as the bladder pours out urine, so the mountains pour out rivers; as the body produces excrement of sulphurous odor and farts which can even be set on fire, so the Earth produces sulphur, subterranean fires, thunder, and lightning; and as blood is generated in the veins of an animate being, and with it sweat, which is thrust outside the body, so in the veins of the Earth are generated metals and fossils, and rainy vapor. (*Harmony* 363-64)

This passage provides a sort of gloss on Kepler’s speculations in *The Six-Cornered Snowflake* regarding the prevalence of five-sided patterns in plants and trees. The soul of these plants are also from the formative faculty of the earth. As Kepler notes in *The Six-Cornered Snowflake*: “the formative faculty of Earth does not take to her heart only one shape; she knows and is practiced in the whole of geometry” (43). It practices geometrical space-filling and plane tessellation in the honeycomb, the Fibonacci sequence in the spiral arrangements of leaves or seeds in many plants, and, according to Kepler, is also responsible for the hexagonal structure of snowflakes.

The major objection that Kepler anticipates to his claim is that individual snowflakes, unlike plants or bees, cannot be said to have souls because no purpose is served by their shape. As he articulates this potential objection:

[F]or where the means are adapted to a definite purpose, there order exists, not chance; there is pure mind and pure Reason. But no purpose can be observed in the shaping of a snowflake; the six-cornered shape does not bring it about that the snowflake lasts, or that a definite natural body assumes a precise and durable shape. (33)

Kepler’s answer to this objection is to extend the category of play to Nature itself: “we say that *Nature* plays [*naturam ludere*]” (33): “formative reason does not act only for a purpose, but also to adorn. It does not strive to fashion only natural bodies, but is in the habit also of playing with the passing moment, as is shown by many ores from mines” (33). Kepler explicitly includes imagination as a faculty in his description of the soul of the Earth in *Harmony of the World*. Gems and ores are there also cited as expressions of
what Kepler calls “the imagination of the Earth’s soul” (*Harmony* 365). Kepler’s statement of the playful and imaginative expressions of the soul of the Earth are thus as a precursor to Coleridge’s remarks on imaginative processes in nature and Peirce’s claim that nature performs abductions.

Kepler’s ascription of playfulness and imagination to the formative faculty of the earth sets up a homology between nature and Kepler himself. As Kepler notes: “Whatever has been said up to this point about the soul of the Earth can also be applied similarly to the faculties of the human soul” (*Harmony* 372). Kepler’s own playfulness is present throughout *The Six-Cornered Snowflake*. This is especially true of Kepler’s turns-of-phrase centered on the notion of “nothing [nihil],” a word that comes to stand, variously, for the ephemeral nature of the snowflake (Kepler even puns in noting the similarity between the sound of the Latin *nix* and the German *nichts*), the result of Kepler’s investigation into the cause the snowflake’s hexagonal structure, and how much of his salary as Imperial Mathematician he has actually received. Most crucially, this playfulness is present throughout the course of musement by which Kepler suggests possible causes or hypotheses for the variety of surprising phenomena that he so acutely observes.

*The Six-Cornered Snowflake* places Kepler’s own play of musement in relation to imaginative natural processes such as the creation of the hexagonal patterns displayed by snowflakes. The relation reveals that the imagination is conceived by Kepler as a *tautegorical* power that is expressed differently in the two cases. The basis lies, for Kepler, in the fact that both processes are icons or likenesses of their shared creator. This thesis is implicit in *The Six-Cornered Snowflake*, though its implications for
understanding the importance of imaginative play within inquiry are drawn out more explicitly in Kepler’s *Tertius Interveniens*, a defense of astrology published in 1610, one year prior to *The Six-Cornered Snowflake*. The contents are more accurately represented by its subtitle as an “admonition” to theologians, physicians, and philosophers who, in their attacks on astrology, articulate principles that would also count against their own disciplines and thus “throw the baby out with the bath water” (*Tertius* 53).

In Kepler’s account, nature is made in God’s image likeness, and the basis of this creative act is a form of harmonic and mathematical play: “God Himself, in his very highest goodness was not content until he had played [*gespielt*] with the signatures of things [*signaturis rerum*] in such a way that he reproduced [*abgebildt*] himself in the world” (*Tertius* 183). This creative act is repeated in the many and varied imaginative processes of nature: “As God the creator played, in like manner he taught Nature, his image, to play” (*Tertius* 184). The human is also formed as a likeness of the creator, and so is similarly endowed with capacities for mathematical and musical play. It is in this way that human play is a homology of natural play.

The creator reproduces himself in what Kepler calls the signatures of things. These are the features of objects considered as signs. As Kepler writes of these signatures:

> Did not God himself direct human beings to the learning of the course of the heavens by activating the eclipses with the Sun and Moon? Did he not, in shaping and forming the horse and his well-adapted back, direct human beings to riding? Why should one not go further and further and find out if such things do not also reside in more concealed things? (*Tertius* 186)

Kepler’s universe, in other words, is itself suffused with Peircean signs. That is to say, these signatures all appeal to us to attend and interpret them. *The Six-Cornered Snowflake*
is a textbook account of the method of such attending and interpretation. To interpret signatures is to understand how they were made, to form a hypothesis concerning their cause. These signatures, Kepler tells us, were produced through a form of play as the creator’s means of solving the problem of reproducing himself in the world. To understand these signatures we must re-solve the problems that they address by means of the imagination understood as what Poe calls a faculty of re-solution. The signatures can only be correctly interpreted if the imaginative power can re-create the playful acts responsible for their production. As Kepler states in *Tertius Interveniens*:

> As God and Nature play … likewise this imitation of human reason cannot be foolish children’s play, but rather must be a natural grace, implanted by God, so that the active heads—those who feel uncomfortable with the ignorance of the common herd—give heed to the signatures of things, and inquire as to whether God himself in the creation of an herb did not indicate its use with color and external form. (*Tertius* 186)

The human act of creation is, for Kepler as for Coleridge, “a repetition in the finite mind of the eternal act of creation in the infinite I AM” (*BL* 1:304). Kepler’s *Six-Cornered Snowflake* explicitly and expertly models this process as a form of imaginative play.

Kepler, like Peirce, notes that the abductive inference is eminently fallible yet also of such a character that a well-prepared mind may soon correctly infer the truth. Writing of the abductive process of interpreting the qualities of herbs as signs of their healing properties, Kepler notes that “it is not denied that in the beginning one might be deceived, especially since the characteristics of herbs are many; and no fewer are their uses for the many symptoms of an illness” (*Tertius* 186). Yet human beings do accurately interpret such signs. In so doing, they consciously participate in a process that Kepler extends to the instinctual performances of animals:
Regarding how plants provide food, the stag, the swallow, the snake, the goat, every animal finds its appropriate plant, and indeed in no other way than by looking at it. It knows it from innate inspiration, from instinct. But the human being has reason instead of divine instinct….Why should he not also through his reason be able to make the divine instinct for himself to recognize the properties of herbs through their form? (Tertius 186)

Peirce, unlike Kepler, conceives of the perceptual judgment (instinct) and abduction (inference) as a continuum. Yet Peirce, like Kepler, identifies abductive inference as the proper or natural purpose of man: “Animals of all races rise far above their proper function, such as flying and nest-building for ordinary birds; and what is man’s proper function if it be not to embody general ideas in art-creations, in utilities, and above all in theoretical cognition?” (EP 2:443). While Peirce offers a semiotic and evolutionary answer to the question of the attunement of man and nature (the man-sign developed from a system of semiotic relations that it must in some measure reflect), Kepler answers the same question in theological terms.

Kepler’s Six-Cornered Snowflake does not end with his speculation that the hexagonal structure of the snowflake is a sign of the imaginative character of the soul of the earth. While the methodological implications of this hypothesis form the center of the text, Kepler draws back immediately after offering such insight:

But this is folly, to be so carried away. Why, my endeavor to give almost Nothing almost comes to nothing! From this almost Nothing I have almost formed the all-embracing Universe itself! Although above I fought shy of the diminutive soul of the tiniest mite, here I am exhibiting the soul of the ‘thrice-greatest’ Animal, the globe of the Earth, in the mote of a snowflake! So I shall beat a retreat and take pains to see that what I have given and said should be Nothing. This will come about if, as quickly as my snowflake melts, I rebut these trivial arguments with as trivial counterarguments and reduce them to—nothing. (39)

Kepler realizes that such speculation neither fulfills the promise of his New Year’s Gift as a discourse on nothing nor, more importantly, does it advance the scientific
understanding of the formation of the hexagonal shape of a snowflake. Though the seventeenth-century astronomer is able, after the manner of a nineteenth-century Romantic poet, “see a world in a grain of sand / And heaven in a wild flower” (Blake 490), Kepler turns his attention at the end of his essay toward chemistry. On the basis of observations of various geometrical shapes in crystals, Kepler closes the essay by appealing to chemists to analyze the impact of the variety and amount of salt found in liquids on the crystals that grow out of them: “Now that I have knocked on the door of chemistry and see how much remains to be said before we can get hold of our cause, I prefer to hear what a man of your great acumen thinks rather than to tire myself with further discourse. Nothing to follow / The End” (45).
Epilogue: Imagination and the Contours of Criticism

Considered as a faculty of the mind continuous with perception and responsible for the creation of imagery, the current vector of critical analysis has long been to reduce the products of the imagination to the imaginary as a privileged site for ideological interrogation. The central contention of this work is to move in a contrary manner. From Coleridge’s methodological writings following the composition of *Biographia Literaria* at the beginning of the nineteenth century to Charles Sanders Peirce’s work on the logic of relations at the close of the century, discussion of the imagination is moved from such a psychological register pertaining to fantasy to a logical register pertaining to the validity of a distinct mode of inference. The purpose of the imagination is not to traffic in the fictive or make-believe but to discern those guiding lights that allow us to navigate a future that is always new. As we have seen, to pursue the imagination as a leading principle that is itself foundational to method is to broaden the conception of what it means to reason.

Coleridge closes his 1816 *Statesman’s Manual* by urging that “a mine of undiscovered treasures,” “a new world of Power and Truth” would result from an imaginative reading of the Old Testament in the same way that an imaginative reading of nature has provided Johannes Kepler (among others) with similar treasure. Coleridge claims that these narratives are capable of providing the statesman with the sort of skill and foresight common to the mathematical sciences because they are an especially rich locus of ideas. To read a work of imaginative literature in this manner is not to attempt to explain or account for it through reference or analysis of something antecedent; rather, the ideas educed from the work are themselves used to explore new situations. The
practical character of an idea, what allows it to convey foresight and power, lies in its ability to render intelligible new and varied phenomena. This epilogue begins to more explicitly map out the contours and consequences of applying the principles annunciated in Coleridge’s “Essays on Method” to the reading of imaginative literature.

Mimesis as a Cowpath in the Machine of Contemporary Criticism

For men are prone to go it blind / Along the calf-paths of the mind
Sam Walter Foss, “The Calf-path”

Kenneth Burke introduces the metaphor of the cow-path in the machine within a description of a process he memorably titles “the bureaucratization of the imaginative”:

‘Every Machine contains a cow-path.’ That is: there are embodied somewhere in its parts the variants of a process that remains simply because the originators of the machine embodied this process in their invention. It has been retained, not because it has been criticized, evaluated, and judged to be the best possible process, but simply because no one ever thought of questioning it.… As it stands, the process is a ‘cow path,’ in pious obedience to its secret grounding in the authority of custom. (Attitudes 228)

To illustrate his principle, Burke asks the reader to consider a machine that originally employed reciprocating motion and whose subsequent improvements all consisted in the introduction of new variants of such motion. So long as the fact of reciprocating motion is taken for granted and never explicitly identified as only one means of achieving a

\[113\] These lines are from in Sam Walter Foss’ “The Calf-path,” a bit of doggerel found in the inauspiciously titled Whiffs From Wild Meadows (1895). The opening sentence of the poem describes the creation of a cow-path – “One day through the primeval wood / A calf walked home as good calves should; / But made a trail all bent askew, / A crooked trail, as all calves do” – and Foss’ couplets go on to describe the subsequent history of the path from its being following the next day by a stray dog to its eventual adoption three hundred years later as the central thoroughfare of a metropolis. The poem laments the fact that the meandering original path, in which one always travels “some three miles in one,” is now responsible for the loss of “one hundred years a day.” As the librarian at the Somerville Massachusetts Public Library, Foss likely had in mind the long standing rumor that Boston’s notoriously crooked streets originated in such a manner. Foss, however, extends the range of application of his organizing figure in the final stanza by suggesting that those more revered “calf-paths of the mind” are responsible for analogous intellectual loss. Rather than identify any well-worn mental paths – an activity not well-suited to Foss’ doggerel – the poem ends by noting that “many things this tale might teach” were the poet “ordained to preach” (77-81).
particular end (what Coleridge would call a conception as only one formal instantiation of an idea), it may be analogized to the crooked, inefficient trails that are created, reinforced, and subsequently followed by grazing cattle. To name a cow-path is to ask whether or not the basic process might be altered – as, for example, one might change from reciprocating motion to rotary motion – and so open the possibility of a new path for criticism and experimentation.

Burke’s assertion that every machine contains a cow-path functions as a regulative idea that both prompts and guides inquiry into systems of all kinds. I claim that the treatment of imaginative literature as a reflection or expression of an antecedent original constitutes a cow-path in the contemporary critical machine. This cow-path is hereafter referred to as the mimetic assumption, named after the relational principle that Plato employed in his introduction of it (as we will see, the use of mimesis to indicate an antecedent original is only one of two relations that Plato draws upon in his use of the term). It is the form taken by the Odysseus allegory of inquiry when it is applied to criticism and theory. A “reading,” on such an assumption, charts the course wherein Odysseus (the stand-in for the literary text) is taken back home to Ithaca (the antecedent original) as a destination already stipulated in advance.

The process of removing a cow-path is not as straightforward as identifying and evaluating the merits of processes that have simply gone without saying. Burke’s hypothetical case glosses over the manner in which a cow-path may be so ingrained within the fabric of a system that it is becomes nearly impossible to dislodge, even in the presence of a viable alternative. This difficulty becomes more evident when Burke’s
principle is considered alongside what Charles Peirce calls “the law of mind.” In Peirce’s articulation:

Logical analysis applied to mental phenomena shows that there is but one law of mind, namely, that ideas tend to spread continuously and to affect certain others which stand to them in a peculiar relation of affectability. In this spreading they lose intensity and especially the power of affecting others, but gain generality and so become welded with other ideas. (W 8:136)

A new idea, once introduced, occasions much thought. Is it consistent with, or apposite to, other ideas? To what extent does it modify a larger, already-held network of beliefs? Over time, the new idea moves from the active periphery of thought towards its stable center. It is slowly transformed from an idea that we actively think about to an idea that passively goes without saying. In Peirce’s terminology, the idea loses its power of “affectability” as it acquires “generality.” Burke’s notion of a cow-path in the machine is identifiable within this process as an idea of considerable generality that was originally introduced within a system merely because it offered an at-hand means of achieving a desired end. As Peirce’s law of mind indicates, one cow-path cannot simply be swapped out for an alternative idea; to replace a cow-path, requires, additionally, the reconfiguration of an entire network of connected ideas.

The mimetic assumption does not stand alone, even in Plato’s introduction of it. It is welded both to the long-standing notion that poetry is fundamentally opposed to logic and to a particular conception of the imagination as a psychological power, aligned with fantasy or make-believe, that is responsible for the creation of imagery. The confluence of all three positions is apparent in the relation between Plato’s so-called middle version of the theory of forms as articulated in the double-divided line in book six of Republic and the argument to expel the poets in the Republic’s tenth and final book.
The double-divided line represents Plato’s full-scale articulation of the theory first announced in *Phaedo* that all objects participate in intelligible forms (*eidos*) that exist separately and apart from the visible world, but are held to be the cause of everything that appears in the visible world. The first division of Plato’s line reintroduces this distinction between a visible realm populated by objects apprehended through sensory perception and an intelligible realm populated by objects apprehended with the mind.

Each of these realms is further divided in two. The visible realm is split between “images,” described as “first, shadows, and then reflections in water and on surfaces of dense, smooth, and bright texture, and everything of that kind” and “objects,” described as “that of which this is a likeness or image, that is, the animals about us and all plants and the whole class of objects made by man” (510a). Objects and images are related to one another by a principle of *mimesis*, which Plato uses to designate both one-to-many and original-to-copy relations. Each singular object may admit of many images (one-to-many), and this singular object precedes its images and so its existence may be inferred solely from the existence of such imagery (original-to-copy).

*Mimesis* is similarly used to distinguish between “diagrams” and “forms” within the intelligible realm. That is to say, each singular form may admit of many diagrammatic representations, and these diagrammatic representations imply the antecedent existence of that form. In Plato’s example, the diagrams employed in mathematical demonstrations point to the real concern of the geometer, the forms (e.g., “the square s such”), of which the diagrams are likenesses.

Because the *mimetic* relation holds not only between images/objects and diagrams/forms but also between the visible and intelligible realms, the four classes
represented by the double-divided line may be hierarchically arranged from the most real (forms) to the least real (images). Plato further assigns a corresponding “affection of the soul” to each class: intellection or reason (nous) for the forms, understanding (dianoia) for the diagrams, belief (pistis) for objects, and picture-thinking or imagination (eikasia) for images (511e). Mimesis is, strikingly, the only relation that Plato employs in his theorization, and its suggested divisions form the basis of a psychology.

Book ten of Republic opens with a reaffirmation of the earlier decision to refuse to admit all poetry into the republic that is “imitative [mimetic].” The theory of forms, Plato notes, can function as an “antidote [pharmakon]” to the corrupting charms of poetry by disclosing its true mimetic character. Plato claims, through the use of an unsatisfactory analogy between poetry and painting, that the poet always creates an imitation of appearances of objects in the visible realm, such that the poem is at the farthest possible remove from a reality anchored in the intelligible forms. Furthermore, because the poet deals chiefly in images, poetry does not engage our noblest faculty – reason – but instead appeals directly to picture-thinking or imagination as the inferior component of our soul.

In Plato’s summary:

On this, then, as it seems, we are fairly agreed, that the imitator knows nothing worth mentioning of the things he imitates, but that imitation is a form of play, not to be taken seriously, and that those who attempt tragic poetry whether in iambics or heroic verse, are all altogether imitators. (602b)

It is on this basis that Plato expels the poets and inaugurates an apologetic tradition of theory and criticism by leaving open the possibility of a prose defense of poetry as the condition of its potential reintroduction into the republic.

What may leave one in apparent confusion is that Plato employs mimesis both as the dominant principle of poetry and as the only epistemological principle in the theory
of forms. If the use of mimesis constitutes the grounds for expulsion from the republic, Plato, it would seem, needs to leave town as quickly as Homer. It is apparent that Plato employs the concept of *mimesis* in his expulsion of poetry not because he considered the relation alongside several others and judged it to be the best or most apposite to his purposes; rather, *mimesis* was the only relation already at-hand from the earlier articulation of the theory of forms. *Mimesis*, that is to say, fulfils Burke’s definition of the origin of a cow-path.

Plato’s stance that poetry is essentially mimetic provided a launching pad for critical discourse. Aristotle, for instance, adopts the mimetic viewpoint when he notes in the opening sentences of *Poetics* that “epic poetry and tragedy, as also comedy, dithyrambic poetry, and most flute-playing and lyre-playing are all, viewed as a whole, modes of imitation” (2:2316). In accordance with Burke’s principle of a cow-path in the machine, Aristotle improves Plato’s mimetic model by introducing new variants of mimesis, distinguishing between the “means” of imitation (e.g., rhythm, language, harmony), the “objects” of imitation (e.g., the actions of human characters), and the “manner” of imitation (e.g., as a third-person narrator or as an assumed character). While Aristotle’s *Poetics* provide ample evidence for the idea’s power of “affectability,” the idea had, by the end of the eighteenth century, acquired so much “generality” that it almost went without saying. M. H. Abrams observes in *The Mirror and the Lamp* that “‘Imitation’ continued to be a prominent item in the critical vocabulary for a long time after Aristotle – all the way through the eighteenth century” and notes that in eighteenth-century critical discourse “the tenet that art is an imitation seemed almost too obvious to need iteration or proof” (11). Abrams, of course, argues that the Romantic commonplace
of poetry as an expression of the personality, thoughts, or feelings of the poet marks a strong discontinuity within a critical tradition that had formerly organized itself around the metaphor of the poem as a mirror held up to nature. Yet to say that a poem is an expression of the poet is emphatically not to change the underlying mimetic model: it merely moves the location of the antecedent original from the external world to the poet’s conscious mind and feelings. It introduces one more variant of an old model. The same is true if the antecedent original is then moved to the author’s unconscious, or even if the antecedent original is moved back out of the author’s head entirely and re-located in one of many power discourses related to the time and place of the composition of the work.

This is not to deny vast and substantial differences between these theoretical models. In terms of sophistication and power, the differences between the contemporary theoretical toolkit and Plato’s analysis in *Republic* are evident. Yet that does not prevent the same cow-path from appearing in both machines.

The array of contemporary approaches show how the imaginative work itself – much like Peirce’s conception of a person – possesses less solitary unity than may be assumed, but is itself formed as a locus from a variety of larger relations. As Cary Nelson observed in 1997, the positions included within theory – “from Marxism and psychoanalysis to feminism, poststructuralism and deconstruction” – all have the “potential to dissolve the individual literary text into its determining forces and discourses” (276). In the same *PMLA* forum on the relation between literary and cultural studies from which Nelson’s remarks are taken, Patrick Brantlinger more forcefully notes:

> As traditionally defined, literature fits into this agenda [of cultural studies] only tangentially – perhaps merely as one more ideological illusion to be critiqued,
together with God, the nation-state, individualism, and ‘free market’
(multinational) capitalism. Whatever else cultural studies may be it isn’t literary
(though literature can be one of its objects of analysis). Meanwhile, it seems
certain that English departments, along with other humanities and social science
departments, will continue to evolve or deliquesce toward cultural studies” (266)

To hold the literary text as an expression of reflection of an antecedent original is to run
the constant danger – especially when that antecedent original is expressed or reflected
elsewhere – of dropping imaginative literature altogether as merely one among many
expressions of the determining forces and discourses that may form the true object of
interest.

While the performative contradictions in such articulations of the cultural studies
agenda were quickly brought to light in John Brenkman’s “Extreme Criticism,” the
impetus to recover the unique values of imaginative literature is evidenced in a host of
work typified by essays such as Rita Felski’s “After Suspicion” and Mark Edmundson’s
“Against Readings.” There is, however, no consensus on how to enact a return to the text
without reintroducing exploded commonplaces concerning the relations of literature to
science, of imagination to reason, or of metaphor to logic. It is precisely on these points
where the work of Coleridge and Peirce can play a foundational role.

**Imagination, Idea, Metaphor: Burns’ “My Love is Like a Red, Red, Rose”**

Coleridge’s theory of inquiry may be applied directly to literary texts. Such
reading consists of two stages: (1) the eduction of an idea and (2) the use of that idea to
explore other phenomena. This process may be illustrated in considerable detail by
focusing on the interplay between allegory and tautegory, between concept and idea, in
the opening lines of Robert Burns’ “My Love is Like a Red, Red Rose.” The example is adapted from Leroy Searle’s work on the logic of metaphor.

The opening simile – “My love is like a red, red rose / That’s lately sprung in June” – provides a textbook illustration of what Coleridge terms an allegorical relation as the expression of resemblance or similarity between two different subjects. The two subjects are connected, but in a manner that remains unspecified. The reader is thus in the position demanded by Peircean musement of accounting for an observed connection. To render the simile intelligible requires the playfulness necessary to abduction in order generate explanatory hypotheses. In this case, one might begin to account for this connection by enumerating properties possessed by a rose that also apply to love, though it only requires a little ingenuity to see how extended musement on roses lately sprung in June severely complicates such an attempt. As Searle notes, there is nothing in the opening simile preventing a reader from remarking, “Oh. I get it. Love has thorns; it is vegetative; it is seasonally afflicted by aphids” (“Technology” 1187). These are all predicates that can apply to such roses, and it is not difficult to see how they might also apply to our experience of love. The difficulty in specifying the resemblance in an allegorical relation does not arise merely from the discovery of such unexpected properties, but also from the way that analysis of the alignment of any one such property calls for precisely the same manner of specification and explication, in a seemingly endless proliferation of such relations.

In Peircean terms, the difficulty in fixing the nature of the resemblance lies in the “indefinite determinability of the predicate.” If one predicate can be specified for such a rose, so might an indefinite number of others. One might begin by noting that such roses
smell good, are pleasing to look at, or may possess thorns or parasites, but one does not know where, or even whether, such a list might terminate. Additionally, each of these predicates are themselves indefinitely determinable, in that any specified character can always be further refined as the subject within a new predication. In Coleridge’s terminology, the analysis of one allegorical relation gives rise to a host of other allegorical relations, each relation calling for the same response. It is for such reasons -- hidden thorns -- that philosophers and logicians so often either avoid consideration of figurative language or attempt to excise or quarantine it from discourse altogether.

The point is not to rehearse familiar commonplaces regarding figurative language and ambiguity. Rather, even in this blackboard example, the course of musement reveals how one allegorical relation, in a simile all too familiar and overworked, is still capable of surprising us by suggesting how our language and our world are more deeply interconnected than we might otherwise suspect or take notice of: love, as Searle notes, “does have ‘thorns’ and these days may be afflicted by really scary ‘aphids’” (“Technology” 1187). The figure presents difficulties not because it is vague, but because of the plenitude of its relational specificity. In order to unpack the simile, it is necessary to treat its terms as sites of connection and relation. As Coleridge writes, “the indispensable condition of thinking methodically” is to “contemplate not things only, or for their own sake, but likewise and chiefly the relations of things” (F 451). It is not that a reader needs to – or even could – generate an exhaustive list; rather, musement on such roses is a first step towards reading methodically.

The second simile in Burns’ poem, analyzed by itself, functions in the exact same manner as the first: “My love is like a melody, / That’s sweetly played in tune.” This is
another example of an allegorical relation as the expression of resemblance or similarity between two different subjects. Treating the melody as a site of relation, it is easy to see how an exploration of this network presents parallel difficulties in specifying the nature of the resemblance in a stable or unproblematic way.

The two similes are not presented in isolation, but sequentially. Read together, they invite the reader to compare the predicates of a rose lately sprung in June with the predicates of a sweetly played melody. Searle generalizes this process as follows: “I have coined the ungainly term, ‘mediating function,’ to designate second-order relations exemplified when one figure is used to constrain the range of application of another” (“Technology” 1188). It is through such a process that the network of relations mapped out by first simile seemingly become navigable. A crucial question for the reader involves the nature of this second-order relation: is it allegorical or tautegorical?

One might picture the interaction of the two similes to function as a Venn diagram

![Figure 15. Simile interaction as a Venn diagram.](image)

where the two ovals are taken to represent sets of possible predicates of the rose and the melody.

The intersection of the two ovals represents what Coleridge calls a “conception” as “a conscious act of the understanding, bringing any given object or impression into the same class with any number of other objects, or impressions, by means of some character
or characters common to them all” (CC&S 13). The thorns and parasites of the rose, for instance, would not find their way into the intersection of the two ovals, though the ephemeral nature of the condition evoked by these lines surely would: a melody sweetly played in tune, much like a newly sprung rose, does not last and may very well be spent before one knows it. As Coleridge notes, every conception “has its sole reality in being referable to a Thing or Class of Things, of which it is or of the common characters of which it is a reflection” (CM 2:1134). The intersection of the Venn diagram, as yielding a conception of love, reflects the common characters of the rose and melody. The conception provides the reader with a checklist or set of rules that may be used for the conformation that other situations are relevant or conformable, but it does not prove helpful in the identification of new situations that might be good candidates for such tests.

This process of comparing and discarding predicates undoubtedly plays a key role in understanding how poems may be said to reason in and through figural language. From the consideration of allegorical relations, however, this mode of reading merely provides what Coleridge calls “the reiteration of the problem, not its solution” (F 481). This situation is made sharply visible in the Venn diagram, whose intersection serves as an apt visual emblem of an allegorical relation as the expression of resemblance or similarity between two different subjects.

To extend the mathematical vocabulary a little further, if the intersection of the Venn diagram is as rich in relations as Coleridge’s and Peirce’s analysis implies, it would not take a Georg Cantor to point out that the set of items contained within this intersection is as densely packed, and so of the same cardinality, as the set represented by
either oval, suggesting that this second-order relation sets itself up for the same kind of problems encountered in specifying the resemblance in either one of the opening similes.¹¹⁴

As Henry James observes in the “preface” to Roderick Hudson: “Really, universally, relations stop nowhere, and the exquisite problem of the artist is eternally but to draw, by a geometry of his own, the circle within which they shall happily appear to do so” (1041). As quickly comes into view, this is an equally exquisite problem for the reader. To avoid getting lost in these relations one needs to find a path of transit from the first simile to the second through the discovery of a purpose, function, or ultimate aim within these lines. What Coleridge says of the “theories and fictions” of the scientists working on electricity in his “Essays on Method” applies with some force to the opening similes of Burns’ poem: they each “contain an idea, and all the same idea … […] implicit indeed, and only regulative hitherto, but which requires little more than the dismissal of the imagery to become constitutive like the ideas of the geometrician” (F 481). That is to say, not only must the reader treat the terms in these allegorical relations as sites of connection in order to free the terms from our habitual associations and thereby open up the relational specificity of the individual similes, but in comparing how the resemblance expressed in the first simile compares to the resemblance expressed in the second, the reader must also, in Coleridge’s words, “dismiss the imagery” in order to liberate the second-order relation from its roseate and melodic containers and so grasp it as an idea.

¹¹⁴ More precisely, in Cantor’s terms the formal defining property of an infinite set is that it can be put into one-to-one correspondence with one of its proper subsets. If attributes or qualities of a “red, red rose that’s lately spring in June” constitute an infinite set as a result of the “indefinite determinability” of predication, then the shared attribute or qualities between such a rose and “a melody sweetly played in tune” is still infinite, in the same way that the set of all positive integers {1, 2, 3, 4, …, n, …} has the same cardinality as the set of perfect squares {1, 4, 9, 16, … n², …}, even as this latter set may be formed by discarding members of the former set.
The imagination “dissolves, diffuses, dissipates” – it “dismisses the imagery” – to bring that idea forth.

This imaginative process of eduction is emphatically not the discarding of predicates that fail to find their way into the intersection of a Venn diagram, though readers do need to use those results to help check whether or not an idea implicit in the opening lines of the poem has been successfully attributed. Having dismissed the imagery and grasped the idea that the poem calls upon its readers to educe, the reader recognizes the two similes as different expressions of the same subject, of the same generative idea of love, and thereby arrives at a tautegorical understanding of the interplay of the figurative language of these opening lines. In so doing, the reader dismisses not only the containers, but also the localized sensory perceptions that Burns is moving through (sight and smell in the first simile, hearing in the second) in order to reveal what Coleridge tells us any poet “must likewise understand and command,” what Coleridge calls “the vestigial communia of the senses, the latency of all in each” (BL 2:128). Once the reader dismisses the imagery, the second-order relation is no longer an allegorical relation expressing a resemblance or similarity between two different subjects; it is a tautegorical relation expressing differently the same idea of love. While a conception requires the omission of the individuating differences of the objects that it subsumes, in a tautegorical relation these objects shine forth in all their particularity through the light of an idea. The relation uncovered by the imagination exhibits sameness while preserving difference. The optical imagery, as we have seen, is Coleridge’s: a tautegorical relation allows for this kind of “translucence” whereas a conception, as an instance of allegorical relation, may be characterized by a “reflection” of common characters (LS 30). The idea is not
abstracted from a series of objects; it can only be grasped through an act of imagination. Freed from confinement within its allegorical containers, Burns’ idea of love leads the reader forward to other situations that can be seen through its diffused light. These situations are not initially recognized as similar by means of checking off a set of relevant features from a list; the sameness is perceived before one notes particular features of resemblance. As Coleridge insists, “an Idea . . . is, in order of Thought, necessarily antecedent to the Things, in which it is, more or less adequately, realized – while a Conception is as necessarily posterior” (CM 2:1134).

The fact that one is able to identify new situations that will, much more often than not, conform to the conception, in advance of verification in the form of identifying particular features of resemblance, suggests for Coleridge that the idea that stands behind the two similes is constitutive, even as it subsists only in objects that neither exhaust nor wholly determine it. For the reader who dismisses the imagery to apprehend it, the idea becomes “a spring and principle of action” (LS 20) by its ability to give reality to new instances, to situations never before encountered.

An explicit parallel can be drawn at this point between the English student learning how to read this poem and the example drawn from Thomas Kuhn in §5.3 of the physics student learning Newton’s second law of motion. Whereas Burns’ poem employs two allegorical relations to express love

love --- r1 --- a red, red rose that’s lately sprung in June
love --- r2 --- a melody that’s sweetly played in tune,

Kuhn’s example shows how the physics student is presented with a series of symbolic generalizations, each unique to a problem-situation, that are used to express Newton’s second law of motion:
The presentation of these various problem-situations, each accompanied by its own symbolic generalization, can be thought of as like a poem that the physics student must learn how to read. Each line in these two charts represents an allegorical relation as assimilating a situation to a law. Just as the common characters possessed by the rose and melody is also an allegorical relation as an expression of similarity, so too is the conjunction of these various symbolic forms. In learning to read the second list, the physics student must “dismiss the imagery” of the problem-situations to apprehend the law as a tautegorical relation. Whereas the reader of the first poem grasps the idea of love at the point where the two similes are understood tautegorically as different expressions of the same subject, of the same generative idea of love, so too the physicist learns to see the various problem-situations as different expressions of Newton’s second law of motion, as what Kuhn calls “subjects for the application of the same scientific law” (Structure 190). The reader of the poem sees the translucence of the idea in the individual similes, an idea that the similes neither exhaust nor adequately determine. The reader of the equations sees the translucence of the law in the various problem-situations, viewing them in light of what Kuhn calls a “Newtonian gestalt” (Road 170) that the various symbolic generalizations likewise neither exhaust nor adequately determine.

The “consequential knowledge of nature” acquired when reading tautegorically is, in Kuhn’s words, “embodied in a way of viewing physical situations rather than in rules or laws” (Structure 190-91). Furthermore, and perhaps most important, a tautegorical understanding of the scientific law is practical, in that it opens a method, or path of
transit, to further research. As Kuhn observes: “Once students have acquired the ability to see a number of problem situations in that way, they can write down ad lib the symbolic forms demanded by other such situations as they arise” (Road 170). The same applies to apprehending the idea behind the two similes of Burns’ poem.

**Imaginative Literature and the Formation of the Eye: William Blake’s Songs of Innocence and Experience**

The power of the idea deduced from the opening lines of Burns’ simile is slight, though the example itself is enough to properly incline the understanding. Both stages of Coleridge’s theory of inquiry are displayed. Drawing an idea out of a literary work requires all the playfulness and attentive scrutiny proper to abductive inquiry; once brought forth, the power of the idea emerges through providing a consequential way of seeing. As William Blake writes of “vision” in a 1799 letter:

> Every body does not see alike. To the Eyes of a Miser a Guinea is more beautiful than a Vine filled with Grapes. The tree which moves some to tears of joy is in the Eyes of others only a Green thing that stands in the way. Some See Nature all Ridicule and Deformity & by these I shall not regulate my proportions, & Some Scarce see Nature at all. But to the Eyes of the Man of Imagination Nature is Imagination itself. As a man is So he Sees. As the Eye is formed such are its Powers. (702)

“Vision” may be said to be synonymous with power insofar as our ability to navigate the world is always circumscribed by what is perceived or noted. In the simplest possible terms, if one fails to “see” an opportunity, one cannot act on it, just as the inability to spot a problem leaves one unable to fix it and avoid its negative consequences. Blake’s pun on “eye” forcefully indicates that these powers of vision are direct correlated to the formation of one’s own self.
Blake’s own *Songs of Innocence and Experience* provide ample source material to help form the “eye” of his readers. The description provided below is necessarily abbreviated; it is only meant to provide a skeletal outline of the ideas that may be educated from this work. The *Innocence* poems provide several representatives of their affective state: chimney sweeps, wise guardians of the poor, a nurse, students from charity schools, and so forth. Each of these characters demonstrate Blake’s maxim that “As a man is, So he Sees”; they all view their world, and so act within it, by means of their affective state.

To draw out that state, requires, first, unpacking the relational specificity of the individual songs. In the same manner that Burns’ poem is about love and not flowers, even though it requires a playfully thorough examination of roses, so too, for instance, is Blake’s “The Chimney Sweep” a commentary on the idea of innocence, but requires thinking through the nearly impossible situation faced by Tom Dacre. Blake’s target is not to protest child labor or to expose the complex network of relations that feed into such practices (though he is certainly doing both), but to use the relational specificity of the poem to figure one instance of the state of innocence. Each song, in Coleridge’s terms, serves as an allegorical container of this same underlying relation.

“Innocence” --- r1 --- “The Chimney Sweep”
“Innocence” --- r2 --- “The Nurse’s Song”
“Innocence” --- r3 --- “The Lamb”
And so on.

Blake’s idea of innocence may be educated by dissolving or dismissing the allegorical containers through which he both articulates and explores it. This is to reduce the idea of innocence it to its most comprehensive form or mode of action, evident in all its manifestations. The function of the idea of innocence is presumably an underlying belief
along the lines that, as the speaker of “The Chimney Sweeper” puts it, “if all do their duty, they need not fear harm” (10, my italics).

The Songs, to quote Coleridge on the unfolding of an idea, “present an ascending series of corresponding phenomena as involved in, proceeding from, and so far therefore explained by, the supposition of its progressive tendency and of the gradual enlargement of its sphere” (SW&F 1:504-5). In the terms of Peirce’s “New List,” “innocence” is a symbol that refers to an “imputed quality,” or a reference to a ground that cannot be prescinded from its reference to an interpretant. That symbol grows or develops across the songs as new relates are introduced. Blake’s Songs of Innocence may thus be understood not as a reflection or expression of something antecedent to their composition, but as a methodical exploration – through an increasingly expansive selection of situations and speakers – of the consequences of a particularly dangerous affective state.

The idea of innocence is neither exhausted nor wholly determined by any one of the individual songs. Its appearance is not limited to late eighteenth-century London, nor is the idea circumscribed by Blake’s particular articulation of it. To so limit the understanding and applicability of Blake’s idea of innocence is to put oneself in the position of Coleridge’s imagined naturalist who restricts respiration to its instantiations within the mammalian lung. While certain forces and discourses are, by necessity, inextricably linked to Blake’s particular articulation of innocence, the idea itself, by definition, is not so tied to any of its manifestations. The power of the idea resides in its ability to render intelligible phenomena outside the particular situations delineated by the Songs, to allow us to understand situations through its diffused light. The characteristic
attitude of innocence may be seen in the child who puts up with an abusive parent under the belief that everything will turn out okay and in the adult who persists in an unhappy relationship under the belief that his or her partner will eventually change. Such a reading does not seek to account for the production of Blake’s text; rather, it dismisses purportedly inextricable appurtenances in order to liberate and use ideas found within that text as tools of exploration and discovery.

While the reader is in a position to thus explore the idea of innocence, Blake’s many representatives of innocence in the individual songs are not. As Coleridge states, an idea may

powerfully influence a man’s thoughts and actions, without his being distinctly conscious of the same, much more without his being competent to express it in definite words … [I]t is the privilege of the few to possess an idea: of the generality of men, it might be more truly affirmed, that they are possessed by it (CC&S 12-13).

It is not just that these representatives are possessed by the idea, and so unable to articulate their own affective state, but the state of innocence is peculiar in that any such articulation necessarily removes one from it. As Leroy Searle has written of the frontispiece to Innocence in conjunction with the opening song, “being ‘innocent’ and knowing it are not contrary but incompatible” since “the ‘experience’ of ‘innocence’ invariably displaces it” (“Continuity” 42).

For the representatives of innocence, the idea functions as an example of Peirce’s category of Firstness: “It cannot be articulately thought: assert it, and it has already lost its characteristic innocence; for assertion implies a denial of something else” (W 6:170). The articulation of “innocence” necessarily moves one out of that state. It would be more

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115 It is important to note that such vision is not a matter of easy reductionism. Rather, like Kuhn’s example of the physicist who knows Newton’s second law of motion, what apprehension of the idea allows is a recognition of its applicability to a given situation, which then has to be worked out in considerable detail.
accurate to state that Blake’s *Songs* provide two facets to innocence: representatives who are actually in such a state and representatives who, having been exposed to experience, nevertheless champion the characteristic maxims of innocence.

To assert, with the speaker of “The Chimney Sweeper” from *Innocence*, that “if all do their duty, they need not fear harm” (10) is to deny the position asserted by the speaker in the corresponding song of *Experience*: “Because I was happy upon the heath, / And smil’d among the winters snow: / They clothed me in the clothes of death, / And taught me to sing the notes of woe” (23). The statement of this chimney sweep expresses the core of ‘experience’ as an idea: *somebody else is to blame for the fact that I do fear harm*. A state best characterized as “so tender that you cannot touch it without spoiling it” (*W* 6:171) gives way to a binary opposition between one assertion and its negation. In this second plane, one side of the binary opposition dominates at the expense of the other.

The inevitable movement described is not from ‘innocence’ to ‘experience’ so much as from a singular plane of *Innocence* to a twofold plane of assertion and negation. Within this twofold plane, either side of the binary opposition may be privileged. Just as the plane of innocence possesses a structural affinity with Peirce’s notion of Firstness, so too does the twofold plane possess a structural affinity with Peirce’s notion of Secondness. According to Peirce, Secondness comes in two varieties: a genuine and a degenerate form. The so-called degenerate form, “the Firstness of Secondness” (*CP* 1.530), would here consist in upholding the ‘innocence’ side of the negation, while the genuine form, “pure Secondness” (*CP* 1.532), would consist in upholding the exclusive truth of the ‘experience’ pole. The twofold plane may be identified through the figure that
Hazard Adams identifies as “’negations’ or ‘cloven fictions’ in which the first of each of these dyads dominates at the second’s expense” (14).

An idea of innocence – if all do their duty, they need not fear harm – underlies the sequence of poems that constitute the Songs of Innocence, just as a corresponding idea of experience -- somebody else is to blame because I do fear harm – underlies the sequence of songs in Experience. Several of the songs of Innocence directly correspond to songs from Experience. These contrasting pairs – “Holy Thursday / Holy Thursday,” “The Lamb / The Tyger,” “The Chimney Sweeper / The Chimney Sweeper,” etc. – constitute a third sequence of allegorical relations. The juxtaposition of contrasting poems situates the reader in a unique state, identifiable neither with innocence nor with experience, but from which the reader can observe the limitations of both.

The plane of the reader has a structural affinity with Peirce’s category of Thirdness: “that which is what it is owning to things between which it mediates and which it brings into relation to each other” (W 6:170). The reader is likewise placed between ‘innocence’ and ‘experience’ and so is positioned to understand the characteristic maxims of these states as two sides of the same coin. The state of innocence discourages its representatives from taking an active role in changing circumstances for the better, in the adoption of the belief that everything will eventually turn out for the best. So too does the state of experience, in its focus on the blame and punishment of others, prevent its representatives from changing the situation for the better. It results in a cynicism that slowly poisons its own world, eventually removing any ground for improvement, hope, or happiness. As Peirce writes of Thirdness: “First and Second … are categories which enable us roughly to describe the facts of experience, and
they satisfy the mind for a very long time. But at last they are found inadequate, and the
Third is the conception which is then called for” (W 6:172). Hazard Adams describes this
plane of the reader as one of contrariety:

True contraries would have to express opposition to these negating oppositions. To embrace the second term of the dyad would not be enough. This new kind of contrariety would not seek the tyrannical victory over and even annihilation of its ‘cloven’ opposite but would recognize it as a fiction and stand in intellectual warfare, which is intellectual conversation, with it, thereby opposing the domination of either side, even its own. (14-15)

The reader, in a third position, stands contrary to the two states which, in the second plane, oppose one another as negations.

The sequence of juxtapositions provides us with the necessary distance and clarity needed to recognize how these states apply elsewhere. We first recognize the effect of the two states on their representatives in the poems, and thereby learn to see the contrastive states in other situations. Such power of vision does not result in a debate over the relative merits of innocence and experience; rather, the poems present an extraordinary opportunity to the reader by provoking the necessity of a creative act that avoids the trappings of either extreme.

“It is energy of the imagination alone that cannot be laid aside”: William Carlos Williams and the Idea of Imagination

The idea educed by the imagination supplies the power of “vision.” The creative or imaginative activity underlying eduction provides the means, as William Carlos Williams writes in Spring and All, “[t]o enter a new world, and have there freedom of movement and newness” (Poems 1:219). This idea underlies the poems of Spring and All.
The poems provide an articulation of the imagination as an idea that stands *tautegorically* to Coleridge’s articulation of the same idea throughout his methodological writings.

Recall Robert Burns’ “My Love is Like a Red, Red Rose.” An apprehension of Blake’s idea of innocence provides the reader with the vision required to see Burns’ poem as narrated from within an affective state of innocence. It is this recognition that accounts for the complexity and impact of the poem. Readers may relate to, and sympathize with, the speaker’s expressions of love, and of his earnest desire for the constancy and immutability of that feeling at a moment of separation or departure. Yet the poignancy of the moment is intensified for the reader of the poem by the further recognition that the very means the speaker uses to articulate this constancy are themselves fleeting: roses fade and melodies end.

Upon this recognition, the reader, unlike the speaker of the poem, is no longer inhabiting a state of innocence. And, clearly, it will do little good to jump to the contrary state of experience, to play up the thorns and parasites of love, though Blake provides us a poem from his *Songs of Experience* that does just that:

> O Rose thou art sick.  
> The invisible worm,  
> That flies in the night  
> In the howling storm:

> Has found out thy bed  
> Of crimson joy:  
> And his dark secret love  
> Does thy life destroy. (23)

The earlier joke from reading Burns’ poem is here taken quite seriously. Even without anything like a full reading of this poem and its accompanying illustration, it is easy
enough to see it as representative of the Blakean state of experience, as desire becomes too difficult to tell from despair.\footnote{This latter phrase is borrowed from Wallace Stevens’ “Esthétique du Mal”: “The greatest poverty is not to live / In a physical world, to feel that one’s desire / Is too difficult to tell from despair” (\textit{Poetry} 286).}

In placing these two poems side-by-side, the reader is in the situation described above. The poems exemplify Blake’s statement that “Affection or Love become a State, when divided from the Imagination” (132). There is no choice to be made between them. Lest the reader be caught between two undesirable outcomes, there is only a demand for a new creative act. The difficulty is that the two options seem to exhaust the realm of possibility. If love really is like a rose, one may either naively celebrate it, seemingly oblivious to the recognition of its thorns and possible decline, or, following the lead of Blake’s poem, focus solely on those “thorns,” seeing only a “dark secret love” that will “thy life destroy.” How to navigate this impasse? Is it possible to learn anything new about love by talking about roses? And is not the very conceit of comparing a lover to a flower an example of objectification? Consider, in this light, how the following selection from Williams’ “The Rose” addresses these objections while pointing a new way forward.

\begin{verbatim}
The rose carried weight of love but love is at an end -- of roses It is at the edge of the petal that love waits Crisp, worked to defeat laboredness -- fragile plucked, moist, half-raised cold, precise, touching What

The place between the petal’s
\end{verbatim}
edge and the
From the petal’s edge a line starts
that being of steel
infinitely fine, infinitely
rigid penetrates
the Milky Way
without contact -- lifting
from it -- neither hanging
nor pushing --

The fragility of the flower
unbruised
penetrates spaces. (Poems 1:195-6)

The way out of the dilemma is only through an imaginative act. The exhaustion of the
trope of love as like a rose makes it appear both as though “love is at an end” and that
“[t]he rose is obsolete” (195) as a poetic device. Williams’ solution exploits what Peirce
calls the “indefinite determinability” of predication to both revitalize the trope and
expand the range of the figure of the rose. Predication, as Peirce’s analysis shows, is itself
an abductive procedure: the predicate is a hypothesis used to render the subject more
determinate. Williams puns on the apparent exhaustion of the trope of roses in love
poetry when he states that “love is at an end of roses,” before going on to further
determine love as itself like the feeling at the end of a rose petal: “fragile, plucked, moist,
half-raised, cold, precise, touching.” The predicates are uncovered, in Coleridge’s terms,
by dismissing the accumulated weight of worn-out notions that obstruct or distort the
vitality of the trope. On the other hand, Williams also exemplifies the “indefinite
determinability” of the subject, in that the rose itself need not be connected to love. As
Williams notes, an imaginative line extends from the edge of a rose petal to every other
object in the Milky Way so that “to engage roses / becomes a geometry” (195). Williams’
revitalizations show an awareness of the attendant risks of love, of the constant exposure
and precision it demands, with a view to the rewards that may result from such risks. This is neither the innocence of Burns nor the experience of Blake, but an attitude from which to pursue one’s desires in a way that prevents them from turning into the despairs of experience.

As Williams summarizes elsewhere in describing his role as a poet: “I can produce the factors, the concretions of materials by which others shall understand and so be led to use -- that they may the better see, touch, taste, enjoy -- their own world differing as it may from mine” (Essays 197-98). This is the generosity of the imagination, and the way that it leads us, again quoting Williams, “to refine, to clarify, to intensify that eternal moment in which we alone live” (Poems 1:178). That instant, as Williams treats it in a late poem, “trivial as it is / is all we have / unless -- unless / things the imagination feeds upon, / the scent of the rose, / startle us anew” (Poems 2:310). There is, as we have seen, a pleasure in imagination, but, more richly, and of a piece with that pleasure, is the work that follows hard along.
Bibliography


Biographical Statement

Thomas Dechand was born on January 28, 1980 in Fort Collins, Colorado. He received his BA from the University of Washington in Seattle in 2002 with a double-major in Mathematics and the Comparative History of Ideas. While pursuing his Ph.D. in the Humanities Center at Johns Hopkins University, he taught a variety of seminars on methodological issues for the Johns Hopkins Honors Program in Humanistic Studies in addition to designing and teaching a variety of courses for the Humanities Center on topics such as American Pragmatism, Charles Sanders Peirce, Henry and William James, S. T. Coleridge, William Carlos Williams, and the relations between poetry and philosophy. He also taught in both the English and Philosophy Departments at the University of Loyola Maryland, in addition offering a course on the mathematical imagination at the Maryland Institute College of Art. He has studied the Charles S. Peirce manuscripts at the Houghton Library at Harvard University and at the Peirce Edition Project at IUPUI. His essays and reviews have appeared in *MLN*. When time allows, he studies ecology in an attempt to follow Wallace Stevens’ dictum to “accept the structure of things as the structure of ideas.”