BURKE AND OPTICS:

RE-ENVISIONING RHETORICAL THEORY THROUGH AN OPTICAL LENS

by

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TABLE OF CONTENTS

LIST OF FIGURES

Chapter One

A Methodological Framework for Burke and Optics

> A way of seeing is also a way of *not* seeing—a focus upon object *A* involves a neglect of object *B*.
>
> (*Permanence and Change* 49, emphasis added)

Visuality is inherent to many terms in rhetorical theory. For example, we often describe our methodologies as "theoretical lenses" and our manipulation of texts as acts of "framing." Yet we fail to consider the neurobiological implications behind such terms, and tracing such implications may reveal new ways of understanding established rhetorical concepts. In this project, I evaluate the early critical work of Kenneth Burke, a rhetorician and social critic who explains how the social and aesthetic world affects individuals' ways of knowing and communicating. As he composed rhetorical terms and theories, Burke continually engaged with visuality and the role of the brain in meaning making. While tracing the social and historical background that molded Burke's thinking and contributed to the origins of his intricate concepts has offered scholars a fertile research ground for many years, scholars have yet to explore the extent to which visuality, specifically optical science and neurobiological research, influenced his terms. My work reevaluates Burke's most visual terms in *Permanence and Change*, orientation and perspective by incongruity, and enacts dialogue between Burke studies and optical science.

Out of his many works, Burke composed *Permanence and Change* amidst a volatile period with the highest political and theoretical stakes for his theories. Written in 1933, at the height of the Great Depression with a looming sense of an impending world war, *Permanence*

and Change addressed the general uneasiness that permeated 1930s American society. Ann George and Jack Selzer describe the cultural moment in which Burke was writing thus: "What America needed was something to get the culture unstuck, to reorient it, to restore its health, to make it grow and regenerate—a new vocabulary or set of symbols" (135). America was indeed in a state of transition, and theorists from every school of thought offered solutions for its ailments. The extent to which art could serve as a catalyst for societal change, however, remained a source of debate among literary circles. On the right end of the political spectrum, high modernists and future New Critics (for example, Allen Tate or John Crowe Ransom) insisted that art had no didactic function, but existed on its own accord. On the left, proponents of proletarian literature (such as Michael Gold) proposed that all art can and should be written for didactic and utilitarian means. Burke traversed the middle ground of these "literary [and cultural] wars," proposing that aesthetics could bring societal chance, thus implying that the aesthetic "functions in the sociopolitical realm" (George and Selzer 105). Further, Burke connected the aesthetic with the biological[1] and neurological base of humanity: "The fact that [hu]man's neurological structure has remained pretty much of a constant through all the shifts of his environment would justify us in looking for permanencies beneath the difference" (*Permanence and Change* 159). As my project will show, Burke indirectly grounds the tension between permanence and change in his engagement with Gestalt theory. It comes as no surprise, then, that as Burke attempts to establish a permanent base from which to understand language, symbol use, and human motives, he turns to visuality and optical science, the main research topic for Gestalt theorists in the 1920s and 1930s.

[1] See Jordynn Jack's "'The Piety of Degradation': Kenneth Burke, the Bureau of Social Hygiene, and Permanence and Change," especially p. 446, for the biological basis of Burke's "metabiology."

[2] In doing so, Lanham implicitly introduces Burke into visual rhetoric and image studies

Indeed, the eye allows Burke to understand how we perceive "fact" from sensory perception that inaccurately reports and receives information from the brain. By highlighting the fallibility of our senses, Burke hopes to disrupt our cultural notions of language, and thus truth, in order to rebuild our way of seeing and thinking about the world. For Burke, targeting the neurology of the brain allows him to understand how individual minds select and deflect information, answering the question of why we hang on to certain ideals and not others: "Our minds, as linguistic products, are composed of concepts (verbally molded) which select certain relationships as meaningful . . . These relationships are not *realities*, they are *interpretations* of reality—hence different frameworks of interpretation will lead to different conclusions as to what reality is" (*Permanence and Change* 35). Indeed, Burke reveals that the mind is composed of verbally constructed concepts that are in no way indicative of our experiences. Progressing into the realm of optical science, he learns that images and mental images work the same way; that is, all words and images are interpretations of reality. Thus in *Permanence and Change,* he views the nature of words and images as making meaning in the same way: fallibly. To change how we understand and thus make meaning, Burke decides to target mental images, to wrench apart our images in order to wrench apart our language associations, and subsequently our worldview. Indeed, we must trace Burke's engagement with Gestalt theory and optical science if we are to properly evaluate the visual, optical, and neurobiological implications of the terms in *Permanence and Change*.

In the following pages of this introduction, I present a literature review that considers the current conversation in Burkean studies concerning the history and meaning of Burke's terminology in *Permanence and Change.* I also evaluate how scholars in new modernist studies, art history, neurobiology, and ophthalmology utilize research concerning the eye's connection to

the brain as a way of understanding language. Lastly, I offer a brief background concerning the evolution of theorists' understanding of the eye over time, specifically focusing on what Burke understood about the anatomical structure and neurological function of the eye in the early 1930s.

In the first chapter of this project, I will dissect the optical and neurobiological basis for Burke's foundational terms in *Permanence and Change*: orientation, trained incapacity, and piety. These terms explain how our understanding of language and our worldview becomes neurologically entrenched. I posit that Burke creates terms that are laden with optical and neurological nuances to suggest that just as we cannot trust sensory perception, we cannot trust our ways of receiving, interpreting, and using language. In the second chapter, I will present a new understanding of one of Burke's most utilized, and also most optical, terms: perspective by incongruity. I examine Burke's perspective by incongruity as a mental tool and a biological heuristic constructed to change our way of understanding the language, symbols, and world around us by allowing us figuratively and literally to see things in new ways. Finally, I will evaluate the extent to which optical and neurological science continued to inform the remainder of Burke's career and how this new, imagistic understanding of Burke's rhetorical theories promotes future research in the field of rhetoric and composition.

Scholars on Burke

Historical studies of Burke's terms document the autodidact's multifarious intellectual endeavors, from modernist poetry to Eastern religion, and prove the difficulty in concretely defining Burke's terms. Jack Selzer's *Burke in Greenwich Village* (1996) and Ann George and Selzer's *Kenneth Burke in the 1930s* (2007) reveal Burke's modernist roots and his participation

in the political and aesthetic conversations circulating in the early 1900s. Richard Lanham, in *The Electronic Word* (1993), chronicles one of Burke's most aesthetically modernist experiments: "Flowerishes" (see Figure 1), a typographical experiment that strategically places words, paragraphs, and bits of poetry in different styles across the page.[2] Indeed, many scholars attribute Burke's early terms, especially those in *Permanence and Change*, in light of his intellectual environment.

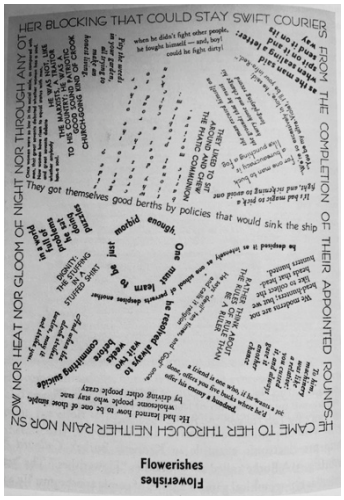

Fig. 1. Flowerishes from Kenneth Burke, *Collected Poems, 1915-1967* (Berkeley and Los Angeles: University of California Press, 1968; 88). rpt. in Richard Lanham, *The Electronic Word: Democracy, Technology, and the Arts* (Chicago: The University of Chicago Press, 1993; print; 36).

The first explicitly visual term that Burke creates is orientation, which scholars generally define as a construct of language that produces a certain way of seeing the world.[3] Ann George furthers this definition and remarks that orientation is an "interpretative lens" (4), implying that individuals look at the world from a specific, ideologically laden point of view. Burke details two psychological mechanisms that hold orientations in place: piety, which forces individuals to interpret information according to what best fits their orientation, and trained incapacity, which blinds individuals from seeing, understanding, or accepting information that is not inherent to their orientation. George and Jordynn Jack suggest that these psychological mechanisms function on a biological level as well, as Jack explains: "piety involves complex and deeply entrenched embodied habits" (458). To

[2] In doing so, Lanham implicitly introduces Burke into visual rhetoric and image studies conversations.

[3] See Blankenship, Murphy, and Rosenwasser's "Pivotal Terms in the Early Works of Kenneth Burke," George's *A Critical Companion to Kenneth Burke's* Permanence and Change, Rosteck and Leff's "Piety, Propriety, and Perspective: An Interpretation and Application of Key Terms in Kenneth Burke's *Permanence and Change*," Williams and Hazen's *Argumentation Theory and the Rhetoric of Assent* (especially p. 96) for insightful, nuanced definitions of Burke's orientation.

break up these embodied habits, Burke creates a methodology known as perspective by incongruity.

Stephen Bygrave's *Kenneth Burke: Rhetoric and Ideology* (1993) attributes the construction of perspective by incongruity to Burke's engagement with French Surrealist Remy de Gourmont. Debra Hawhee, however, points to Eastern philosophy as the source for perspective by incongruity in her article "Burke and Nietzsche" (1999). Aside from the term's origin, Blankenship, Murphy, and Rosenwasser (1974) and Rosteck and Leff (1989) explicate the term's definition—a method of language construction and destruction that juxtaposes incongruous words or phrases to reorient an individual's semantic understanding of the world—and emphasize the metaphorical nature of perspective by incongruity.[4] George's *A Critical Companion to Kenneth Burke's* Permanence and Change (forthcoming) provides the most comprehensive definition of the term, explaining perspective by incongruity as a critical heuristic, an epistemological tool,[5] a method of social cure, and a conversion strategy.[6]

Drawing upon and differentiating her work from Kumiko Yoshioka (2000) and Robert Wess (1996)—both of whom treat Burke's dealings with the body in his first critical text, *Counter-Statement*, as "problematically essentialist" (66)—Hawhee takes Burkean scholarship in an entirely new direction in *Moving Bodies: Kenneth Burke at the Edges of Language* (2009), recontextualizing Burkean rhetoric as a bodily rhetoric that considers language as inherent to the

[4] Other scholars discuss Burke's terms, especially perspective by incongruity, using visual language and words such as "lens" and "imagery" (Blakesley, 2002; Tietge, 2008). Yet these sources do not discuss Burke's motives for using these optical terms: to show language's relationship to the brain.

[5] Also see Paul Jay's "Modernism, Postmodernism, and Critical Style: The Cases of Burke and Derrida" (1988).

[6] For application of perspective of incongruity, see Burke's *Perspectives by Incongruity* (1964), Dow's "AIDS, Perspective by Incongruity, and Gay Identity" (1994), Rockler's "It's Just Entertainment" (2002), or Lowrey, Renegar, and Goehring's "'When God Gives You AIDS" (2014).

rhythms of the human body. Expanding upon a previous article, "Burke on Drugs" (2004), in which she explores Burke's background as a drug researcher, Hawhee traces Burke's early encounter with mysticism and biology, two subjects most prevalent in his second critical text, *Permanence and Change* (1935). Hawhee also explains the text's numerous references to endocrinology, and she correlates this organ system with Burke's concept of perspective by incongruity. Not only biology, but also Burke's knowledge of specialized systems of the body undoubtedly contributed to the formation of many of his rhetorical concepts throughout his career. Yet to my knowledge, no scholar has extended Hawhee's research to evaluate Burke's engagement with ophthalmology, which seems incompatible with Burke's repeated references to vision and Hermann von Helmholtz's work in *Permanence and Change*.

Scholars on Optics

Art theorists and historians (Krauss, 1993) have studied the optical implications of the way that art is composed, viewed, and used to alter perception for many years. Neurobiologist Margaret Livingstone explains, in *Vision and Art: The Biology of Seeing* (2002), the science behind vision and the structures of the eye that enable artists to achieve certain stylistic effects in artwork. Ophthalmologists Michael F. Marmor and James G. Ravin extend Livingstone's research and also study the individual structures of the eye to detail how certain eye diseases can alter artists' abilities in *The Artist's Eyes: Vision and the History of Art* (2009).

Once artists have produced an image, the eye can gaze upon this image and begin the interpretation process that will be completed by the brain, and scholarship that evaluates the connection of sight to memory, meaning, and epistemology represents another realm of research involving optics. In *Eye and Brain: the Psychology of Seeing* (1966), R. L. Gregory considers the

relationship between the eye and the brain from a psychological perspective, drawing heavily from Gestalt theory and evolutionary psychology. Semir Zeki refers frequently to Gregory's work in *Inner Vision: An Exploration of Art and the Brain* (1999), and extends the proposition that art and the brain share a similar goal: to represent constant features that allow individuals to acquire knowledge. Indeed, most neuroscientific sources (Hubel, 1988; Mildner, 2008; Miller, 2000) focus on the brain's ability to create constants, or wholes, from the various fragments of information it receives from the senses.

Within English studies, literary scholars were the first to incorporate optics into their work. In *Optical Impersonality* (2014), Christina Walter considers the relationship between modernist writers and optical science, as well as the extent to which optical theory permeated modernists' scientific vernacular, influencing their understanding of the transitory relationship between subject and object. As Walter suggests, knowledge of optics contributed to modernists' understanding of perception and the way that the brain receives and interprets information—a conversation in which Burke extensively participated.

Towards a Visual Burke

A new turn in rhetoric studies, "neurorhetorics" (Jack, 2010), seeks to build an interdependent relationship between neuroscience and rhetorical studies, with each field informing and communicating with the other. In "Looking into Aristotle's Eyes: Toward a Theory of Rhetorical Vision" (2011), Hawhee utilizes neuroscientific research concerning mental imagery to posit a theory of rhetorical vision—a theory that shows how language interacts directly with vision. She relates this theory directly to Aristotle, but she also references Richard Moran who posited that Burke mirrored Aristotle's ideal writing style by "setting before

the eyes" (155). According to Moran and Hawhee, Burke *wrote* in a way that appealed to rhetorical vision. If Burke was able to utilize rhetorical vision, then his methodologies, especially perspective by incongruity, must also deal with the manipulation of mental images.

Positing this theory of rhetorical vision, Hawhee is careful to set her research apart from the field of visual rhetoric. Visual rhetoric evaluates material objects and rhetorically analyzes pictoral images (Hawhee and Messaris, 2009); studies in visual rhetoric also rarely consult or engage with optical science. Because orientation and perspective by incongruity are so intricately related to metaphor and visuality, researchers must consider this term as dealing with rhetorical vision, not material images.

Yet scholars' conception of the brain's ability to create and understand mental images has changed over the centuries. Gregory details that the earliest understanding of vision derived from Euclid, around 300 BCE, who explained that light radiated *from* the eye and reached to touch the outside world like fingers.[7] Over a thousand years later, Arabian scholar Alhazen (*c.* 965-1038) created optical experiments—pinholes, lenses, and the first camera obscura—to explain that the eye optically projected images from the outside world to the brain (Gregory 1, 35). Walter further explains that Johannes Kepler popularized the camera obscura when he created a mathematical theory to accompany the device in 1604. A few decades later, Rene Descartes created a geometric model of the eye in his *Dioptrics* (1637). Descartes believed that a disembodied observer was positioned behind the base of the retina to gaze upon a central, objective view of reality, as shown in Figure 2 (Walter 8-9).

[7] Notice how Euclid's definition of vision corresponds with Burke's language in *Attitudes Toward History*: "We used to 'grasp' ideas, but tend more and more to 'see' them" (211). Centuries ago, we assumed that vision was graspable, but as we began to better understand the eye, we began to better understand the nature of abstraction.

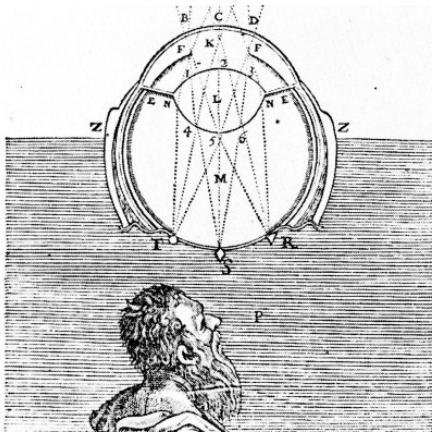

Fig. 2. Geometric Model of the Eye from Descartes's *Dioptrics* (Bibliotheque de l'Academie de Medecine, Paris, 1637); rpt. in Christina Walter, *Optical Impersonality* (Baltimore: Johns Hopkins University Press, 2014; print; 9).

Some two hundred years later, Helmholtz dismantled Cartesian notions of disembodied objectivity and exposed the fallibility of the senses. In his *Physiological Optics* (1856-66), Helmholtz presented not only the materiality of the retina (see Figure 3), which Descartes failed to explore, but also the decentralized nature of the way that light enters the eye (Walter 8). Helmholtz's research revealed that the brain does not receive "images" from the eye, but rather that light triggers neurotransmitters in the retina, which then transmit this neural information to the brain (Gregory 1). That is, "image" is something produced by the brain, not the eye.

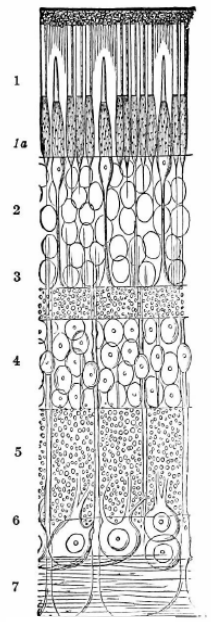

Fig. 3. Layers of the Retina in Cross-Section from Hermann von Helmholtz's *Treatise on Physiological Optics* (Rochester: Optical Society of America, 1924; 24).

Writing in the early 1930s, Burke was not only influenced by the work of Helmholtz (which I will discuss in more detail in the first chapter), but he also engaged with the comprehensive review of Gestalt theory presented by Petermann's *The Gestalt Theory and the Problem of Configuration* (1932). Though Petermann critiqued the manner in which the Gestaltists' derived theories from their scientific experiments, he did present their optical experiments and analyze them in detail. Further, the Gestaltists' main concern was not the structure of the eye or the retina but the nature of the neurotransmitters that related information to the brain (which I will also detail further in chapter one).

Re-Envisioning *Permanence and Change*

Burke began directly engaging with optical science, along with psychology, biology, and sociology, in his second critical work, *Permanence and Change.* While scholars have extensively evaluated Burke's participation in conversing with these other fields of study, they have yet to explore Burke's engagement with optics. Burke's explicit references to Helmholtz and to Gestalt theory lead to a new area of inquiry in rhetorical research as it begs the question: does the neurobiological function of the eye grant a new understanding of Burke's rhetorical theories, especially his early terms (orientation and perspective by incongruity) that would continue to shape his other rhetorical theories (frames of acceptance and terministic screens) for decades to come?

Methodology. To answer this question, I perform textual analysis to examine Burke's engagement with optics in *Permanence and Change*, specifically those sections in which Burke discusses theories from Helmholtz's lectures or information of Gestalt theory derived from Petermann's *The Gestalt Theory and the Problem of Configuration*. I also evaluate archival documents, namely Burke's letters housed at The Eberly Family Special Collections Library at The Pennsylvania State University, to prove Burke's proclaimed interest in texts dealing with optical science. Finally, I utilize the anatomical structure of the eye to further explicate how Burke's theoretical concepts functioned on a neurobiological level.

For this project, I understand "image" in a twofold way: "image" as visual stimuli and "image" as mental concepts. Any reference to "visual image" refers to the images produced by the brain based on sensory information received from the eye. Any reference to "mental concept" or "mental images" refer to those concepts conjured by the brain to understand ideas and make meaning. Rarely, if ever, will "image" refer to a material image in an external environment.

Project Overview. The first chapter of my project, "A New Look at *Permanence and Change*: Gestalt Theory, Helmholtz, and the Incongruences of Perception," explores Burke's engagement with Gestalt psychology, a major field of study that contributed to his understanding of optical science. Gestalt theorists evaluate the relationship between the whole (*gestalt*) and its parts, often grounding their theories in ophthalmological studies and evolutionary studies of social change. Archival research suggests that Burke was intimately familiar with Bruno Petermann's *The Gestalt Theory and the Problem of Configuration* (1932) and that he continually engaged with this text as he composed *Permanence and Change*. With an understanding of Burke's knowledge of Gestalt theory, I then introduce Burke's reference to Helmholtz in the "Perspective by Incongruity" section of *Permanence and Change* and trace the different aspects of Helmholtz's research that correlate with Burke's text. Examining Burke's engagement with gestalt theory and Helmholtz's lectures will allow us to better understand Burke's construction of orientation, piety, and trained incapacity as neurobiological mechanisms that affect how we see and understand the world. This chapter also applies Burke's theories to the anatomical structures of the eye, positing that these terms function as internal apparatuses similar to the crystalline lens of the eye, which both literally and figuratively obscures vision.

After exploring the mechanisms that create and control our worldview, I show how Burke constructed perspective by incongruity as a methodological heuristic to disrupt and reorient language associations that create our orientations in chapter two. I posit that Burke constructed perspective by incongruity to operate similar to blurry vision or optical illusions that allows individuals to "see beyond" their orientation by literally fooling the eye, or in this case, fooling the mind's eye. Further, I reveal that this method of juxtaposing incongruous words and images

to obtain a novel worldview functions according to the visual sense's and the brain's need for contrast to interpret new information.

I conclude my project by evaluating how Burke continued to redefine his notions of orientation and perspective by incongruity in increasingly visual terms throughout the remainder of his career (in works such as *Attitudes Toward History, A Grammar of Motives,* and *Language as Symbolic Action*). I then consider future research questions extending from this project, including Burke's relationship to nondiscursivity and how such conversations can help to bring Burke's terms and rhetorical theories into the digital age.

Throughout my thesis, I suggest that scholars cannot truly understand the nuances of Burke's terms, especially orientation and perspective by incongruity, without understanding the concepts' relation to optical science. Indeed, recent scholarship has begun to read Burke biologically, but I propose that we must also read him ophthalmologically. Just as neurobiologists use ophthalmology to better understand art, rhetoricians can begin to use ophthalmology to better understand the rhetorical theories with which we interpret both physical images and mental images. Indeed, if we are to understand each of the many Burke, we must first understand a vital part that we have overlooked: optics.

Chapter Two

A New Look at *Permanence and Change*:

Gestalt Theory, Helmholtz, and the Incongruences of Perception

> Piety is a system-builder, a desire to round things out, to fit experiences together into *a unified whole*.
>
> (*Permanence and Change* 74, emphasis added)

Burke's terms are large, multitudinous, and extremely difficult to define; it seems that with each new historical or archival fact, scholars discover a new Burke or a new way to read and utilize his theories, for, as William Rueckert observes, there are many "Burkes" (*Encounters* 3). In "Burke on Drugs" (2004), Debra Hawhee notes the importance of scholars who perform historical studies of Burke's terms, as such work helps to determine "how Burke came to formulate and reformulate terms the way he did" (5). Hawhee further explains that scholars' archival work has tracked Burke through modernist literary circles and leftist political crowds; "Burke on Drugs" and Jordynn Jack's "'The Piety of Degradation': Kenneth Burke, the Bureau of Social Hygiene, and *Permanence and Change*" (2004) seek to supplement past Burke scholarship by detailing the rhetorician's work as a drug researcher at the Bureau of Social Hygiene in New York, which was commissioned to study the habits behind social ills. Hawhee also establishes *Permanence and Change* as "the book in which the body figures most forcibly for Burke" (*Moving Bodies* 19). Knowing the affective implications of Burke's terms help to explicate the full meaning behind his theories, and while recent scholarship has begun to evaluate the importance of science to Burkean theory, I propose that we focus on Burke's extensive engagement with optical science, a topic that scholars have yet to explore. In *Moving*

Bodies: Kenneth Burke at the Edges of Language (2009), Hawhee examines endocrinology as a source that allowed Burke to understand the way that internal bodily processes translate to external, physical behaviors; Hawhee explains that Burke's study of endocrinology changed his understanding of the body's communicative and interpretative processes. I argue, in a move parallel to Hawhee's, that ophthalmology offered Burke a scientific lens that changed the way he envisioned language formation and perceptual processes.[8]

Indeed, Burke's experience at the Bureau of Social Hygiene was not the sole factor in his understanding of the mind's relationship with the body. Burke's engagement with Gestalt psychology and optical science altered his conception of the way humans process experience and helped him shape understandings of what he would call orientation, piety, and trained incapacity. I will begin this chapter by closely analyzing Burke's language as he defines orientation, piety, and trained incapacity. Burke's description of these terms reveals an underlying thread of optical references throughout his work. I will then establish Burke's awareness of optical science in the 1930s and the scholarship written about Gestalt psychology that influenced his drafting of *Permanence and Change*. I propose that Burke constructed orientation to function as a Gestalt, or a whole, that encompasses many parts but cannot be reduced to these many parts.

Next, I will closely examine Burke's direct reference to optical science via the work of German ophthalmologist Hermann von Helmholtz. Burke's comments on Helmholtz parallel Helmholtz's discussion of the senses in his lectures. Further, the passage from Helmholtz with which Burke engages also relates back to tenets of Gestalt psychology, namely the senses' ability to create a unified whole from scattered stimuli. Setting orientation, piety, and trained incapacity

[8] Since my argument runs parallel to Hawhee's, perhaps I should say that the rhetoric of science Burke experienced in his readings of one specialization (endocrinology) reinforced what he learned from other specializations (i.e., ophthalmology). Each specialization contributed to Burke's holistic understanding of the way that the body functions in conjunction with the mind—a thought that might prove fruitful in a reevaluation of metabiology.

in relation to Gestalt principles allows Burke to frame these terms as problematic mechanisms firmly rooted in the human body and mind. Therefore, I posit that Gestalt principles inherent in Helmholtz's works allowed Burke to understand language as a system that restricts our understanding of the world around us: as we classify information, we prevent ourselves from understanding what exists outside of our classifications. That is, Burke utilizes Helmholtz's work not to show how the senses classify information, but to show how the senses *fail* to classify information.

Finally, I will situate orientation, piety, and trained incapacity in the anatomical structure of the eye, reading piety and trained incapacity as a cataract that both literally, and figuratively, obscures vision and, thus, our understanding of the world. I argue that Burke's use of optical science manifests in an implicit message that lingers throughout *Permanence and* Change: we cannot trust sensory perception, therefore we cannot trust our way of receiving, interpreting, and using language.

Coming to Terms with Orientation, Piety, and Trained Incapacity

Many of Burke's major terms in *Permanence and Change* contain visual language or visual implications, the most overarching of which is orientation. Burke defines orientation as "a system of meanings, an altered conception as to how the world is put together" (*Permanence and Change* 81). Scholars have generally agreed on a common definition for orientation: a construct of language that produces a certain way of seeing the world. Ann George even remarks that orientation is an "interpretative lens" (4), which implies that individuals look at the world from a skewed or biased angle. Indeed, any stimulus, word, or event that individuals encounter is

filtered through their orientation: they can only know what their orientation allows them to know.

Burke details two mechanisms that hold individuals' orientations in place: piety and trained incapacity. He defines piety as a "system-builder, a desire . . . to fit experiences together into a unified whole" (74). The "system" that piety builds, or reinforces, is orientation; as we process information, piety forces us to interpret information according to what fits[9] with our present orientation: anything that is incongruous to our orientation is impious. Burke attributes "trained incapacity" to Thorstein Veblen and defines Veblen's term as "that state of affairs whereby one's very abilities can function as *blindnesses*" (7, emphasis added).[10] He goes on to explain that our "past training" can cause us to "misjudge [the] present situation," in which case "training has become an incapacity" (10). Essentially, our ways of understanding in the past can prevent us from seeing the world anew in the present, which blinds us to such a degree that we will be unable to change our worldview in the future.

Thus, the mechanisms of piety and trained incapacity function on a psychological level, but George and Jordynn Jack suggest that they function on a biological level as well. Jack explains that "piety involves complex and deeply entrenched embodied habits," and she similarly notes that these habits are some of the most powerful forces that keep us from evaluating and reshaping our present orientations (458). This notion of embodiment also correlates with Burke's understanding of the eye: he never considers the eye only for its *theoretical* implications, but also

[9] This process is an accommodation of sorts—we accommodate new information with what we already know. I will consider accommodation's role in optical science near the conclusion to chapter two.

[10] Though, as Erin Wais reveals in "Trained Incapacity: Thorstein Veblen and Kenneth Burke," Burke reappropriates Veblen's term rather loosely as Veblen only used the term in a business or industrial sense.

for the way it connects the mind to the body. For Burke, the errors in our interpretation are not only epistemologically rooted, but also biologically rooted.

All Parts Coalesce Into A Whole: Burke's Engagement with Gestalt Theory

Perhaps the greatest difficulty in properly defining Burke's terms is that they derive from so many overlapping schools of thought. In *Kenneth Burke and the 1930s,* Ann George and Jack Selzer detail that the early 1930s were crucial years for Burke, as Burke was reevaluating his role as a modern aesthetic writer while developing into a sociocultural critic in his drafting of *Counter-Statement; Auscultation, Creation, and Revision*; and, most fully in *Permanence and Change*. As previously mentioned, Burke's work at the Bureau of Social Hygiene helped him to study the way that the body functions, especially in accordance with the mind.

Yet the school of thought that appears most throughout *Permanence and Change* is not (directly) literature or biology, but psychology. William Rueckert notes that Burke's understanding of the discipline of psychology derives mostly from Freudian psychoanalysis and Gestalt theory (214). Though a number of scholars have analyzed Burke's connection to Freud, few have traced Burke's engagement with Gestalt. One notable exception is Mark H. Wright's "Gestalt Psychological Theory's Value in Rhetorical Criticism." Wright mentions a June 1932 letter from Burke to Malcolm Cowley, Burke's best friend, fellow writer, and an editor at the *New Republic*, in which Burke discusses his "coquetting with Gestalt theories of meaning" (209) as he studies C. K. Ogden and I. A. Richards's *The Meaning of Meaning* (1923). Wright also mentions, in passing, other Gestalt theory sources that Burke was reading during this time: Ogden's *The Meaning of Psychology* (which Burke cites in *Permanence and Change* on p. 97) and Bruno Petermann's *The Gestalt Theory and the Problem of Configuration*, both

comprehensive review books of various strains of psychological theory. Two other letters between Burke and Cowley, which Wright does not mention, further explain Burke's favorable opinion of Petermann's text. In fall 1932, Cowley writes to Burke regarding Burke's interest[11] in composing a review article to analyze the meaning of meaning while featuring three primary texts: Petermann's *The Gestalt Theory and the Problem of Configuration*, Richards's *Mencius on the Mind*, and Ogden's *Bentham's Theory of Fictions* (30 Nov. 1932). Cowley replies that he would like Burke to write on Richards and Ogden only. Burke, though, does not disregard Petermann's text. A little over a year later (26 Feb. 1934) Cowley writes Burke for help compiling a list of "good but neglected books" written over the previous three to four years to appear in *The New Republic*. On the bottom of this letter, Burke penciled in his top four choices: 1) Petermann's *The Gestalt Theory and the Problem of Configuration*, 2) Richards's *Mencius on the Mind*, 3) an obscure text he titles *Bilingual Principle*, and 4) A. H. Burlton Allen's *Pleasure and Instinct*. Burke's placing Petermann's text at the top of his list warrants our attention, especially since Burke first encountered the text just before he began serious planning of *Permanence and Change* and created his ranked booklist near the end of his drafting. This archival evidence clearly suggests that Burke engaged with the Gestalt theories contained in Petermann's text during the composing process.

A field of study made famous in the early twentieth century by Wolfgang Kohler, Kurt Koffka, and Max Wertheimer in Germany, Gestalt theory, according to Petermann, examines "the 'wholeness' characteristic of psychic phenomena" (3), or the brain's tendency to create unified wholes from the scattered stimuli that it receives. Rueckert claims that Burke viewed Gestalt theory as "a more useable extension" of behaviorist experiments and posits that Burke was more familiar with "the laboratory work of men like Kohler and Koffka than with the

[11] This interest is undocumented, thus the two men likely discussed the topic in person.

theoretical work of Wertheimer" (221). Yet what Burke encountered in Petermann was a comprehensive overview of *many* versions of Gestalt theory, an overview that privileges each researcher's theoretical conceptualizations over the details of their "laboratory work." Though Part II of Petermann's book does evaluate "the concrete empirical foundation of the gestalt theory" (138), the first experiments he details are far from lab work; instead, he discusses Kohler's discovery of "gestalten in . . . optical perception" (139) manifested by drawing black parallel lines—of varying distances apart—on a white sheet of paper (see Figure 4). Kohler concludes that the brain forms groups (gestalt) even when presented with only parallel lines. Indeed, most of the "experiments" in Petermann's text evaluate how parts relate to the perceptual whole by studying the way that the eye receives and interprets sensory information, especially manifested through optical illusions. Rather than experiments, the central theme throughout Petermann's text is the "problem of gestalt,"[12] a problem that he defines as "how it is possible for a whole to arise out of the elements" (4). Petermann complicates this definition near the end of his text, describing the gestalt problem as "the *incongruity* between the phenomenal and functional characteristics of the gestalt facts, on the one hand, and the theoretical possibilities of a synthetic *atomistic* theoretical formulation, *orientated* by the element concept, on the other" (309, emphasis added). He also explains that Wertheimer, Koffka, and Kohler used the problem of gestalt to justify a "new psychology" in which Gestalt became "the symbol for a

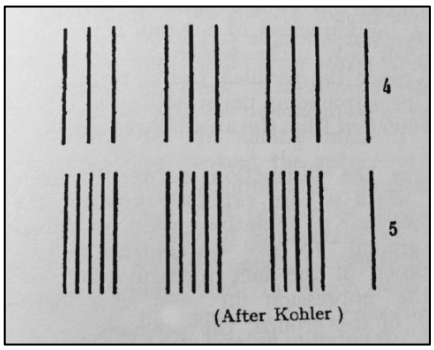

Fig. 4. Replica of Kohler Sketch, Featuring the Phenomenon of Closure from Bruno Petermann, *The Gestalt Theory and the Problem of Configuration* (London: Kegan Paul, Trench, Trubner & Co., 1932; print; 144).

[12] Petermann equates the term "gestalt" with "configuration." Therefore, "The Problem of Configuration" *is* the problem of gestalt.

basic *reorientation*" (2, emphasis added). In Petermann's writing, we see four terms that appear in Burke's own writing, *incongruity*, *atomistic* (both of which I will discuss in the next chapter), *orientated*, and *reorientation*, all of which derive, at least in part, from a psycho-scientific, specifically optical, context.

We can understand orientation, then, as the literal lens in the eye—the lens through which we directly view the world. But recall that Burke's orientation, trained incapacity, and piety are psychological, as well as biological, constructs: our overarching worldview is "orientation," our persistence in maintaining this worldview is "trained incapacity," and the psychological and embodied mechanism that holds these systems in place is "piety." And for Burke, orientation, piety, and trained incapacity are inextricably linked, a connection that he makes through his explication of Ivan Pavlov's ringing-bell experiment.[13] Reading the individual elements of Pavlov's experiment through a Gestalt lens, Burke states:

> In the complexities of social experience, where the recurrence of "like" situations is always accompanied by the introduction of new factors, one's total orientation may greatly influence one's judgment of likeness. . . . And since much of our means selecting is done on the basis of comparisons…we see how orientation, means selecting, and "trained incapacity" become intermingled.
>
> In a general way, we might say that events take character by a "linkage of outstanding with outstanding" (as the outstanding sound of the bell, in linkage

[13] A superficial reading of *Permanence and* Change suggests that Burke places Gestalt theory alongside behavioral theory; after all, he does state, "Though the schools of behaviorism and Gestalt have sometimes considered each other as antithetical, there seems to be no fundamental difference at this point between the 'absolute' conditioning noted by the behaviorists and the conditioning to relationships, or 'wholes,' noted by the Gestalt experimenters" (12). Burke's opinion on behaviorism, however, was quite complex. See Robert Wess's *Kenneth Burke: Rhetoric, Subjectivity, Postmodernism*. Cambridge: Cambridge UP, 1996.

> with the outstanding experience of the food, imparted to the bell a food-character for Pavlov's dogs). The accumulation and interworking of such characters is an orientation. (13-4)

For Burke, orientation *is* a form of the Gestalt, a whole or "accumulation," that both encompasses many parts but is not reducible to them. Moreover, piety and trained incapacity function to keep this whole in place. And while this definition of orientation rings true for the Pavlovian experiment, Burke indirectly alludes, at the end of his "Orientation" chapter, to how the same system functions in human interactions, only in a more complicated manner: "The Pavlov-Watson-Gestalt kind of approach confined itself in general to a description of the conditions under which *simple responses* are formed and altered. But man attempts to extend the range of his responses and increase their accuracy by deliberately *verbalizing* the entire field of orientation and interpretation" (18, emphasis added). Indeed, the theories and optical experiments of Gestalt theory offered Burke a more useable framework than the behaviorists' theory because the former alerted him to the brain's tendency to make wholes, forms, or symbols out of everything. Yet in discussing the complexity of individuals' orientations and systems of interpretations, Burke turns to optical science in an even more direct approach than Gestalt psychology. As we will see with Burke's discussion of Hermann von Helmholtz and the eye, Burke realizes that once a whole has been established, it is often no longer noticeable to the individual and thus very difficult to displace. In other words, individuals fail to process much of the information contained within this whole.

Burke's Reevaluation of Sensory Perception: Helmholtz and Optics

Because Burke was reading Petermann's *The Gestalt Theory and Problem of Configuration*, we know that he was directly engaging with the field of optical science as he wrote *Permanence and Change*. As previously mentioned, most Gestalt theories derived from an understanding of the way that the eye connects to the brain. For example, in discussing the conceptual basis behind one of Wolfgang Kohler's theories, Petermann writes, "Gestalt processes are also specifically developed in the nervous system. They arise, for example, as configured processes even in the retinal periphery. . . . *The whole optic sector presents a unitary region of excitation which is configured throughout its extent*—in the same sense as an electrical field" (39). In other words, the way neurons in the eye's retina, or inner lining, send signals to the brain provides evidence of Gestalt—though light rays may excite disparate regions of the retina, the eye sends a unified signal (Gestalt) to the brain. Indeed, the eye and the psychophysiology behind optical illusions offered Gestalt theorists a concrete, empirical base upon which to ground their theories. And though Burke never references Petermann's book in *Permanence and Change*, he does include numerous references to the eye, the most explicit being his citation of Hermann von Helmholtz.

A German ophthalmologist and physicist, Hermann von Helmholtz was a groundbreaking figure of the mid to late nineteenth century whose research and inventions forever changed ophthalmological practice, cementing his status as "one of Germany's and the world's spokesmen of science" (Helmholtz and Cahan xi). Helmholtz's theories ranged from the origins of planetary systems and the conservation of force to the physiological causes for harmony in music and the relation of optics to painting. Perhaps his most productive contribution to the scientific field, however, was his invention of the ophthalmoscope (an updated version of which

is still used in practices today), which allowed researchers to "observe the living retina" for the first time. Helmholtz's work was distributed in two major forms in America; first, a compilation of his major lectures distributed throughout Germany in 1865 was translated into English in 1873, and second, The Optical Society of America translated and published his *Treatise on Physiological Optics* in 1924. Christina Walter, in *Optical Impersonality: Science, Images, and Literary Modernism* (2014), details Helmholtz's impact on the American scientific vernacular, particularly modernists' conversations of science and their understanding of the body (of which we know Burke was a part), by suggesting that Helmholtz helped to dismantle the Cartesian notion of an autonomous mind that received faithful records of visual images from the eye. Before Helmholtz, scientists understood the eye geometrically, believing that light rays entering the eye adhered to the laws of physics. As such, they depicted a geometric model of the eye with an independent observer (human) connecting the eye to the brain. Helmholtz's research went beyond a geometric understanding of the eye and revealed the living retina, with its ten layers, in cross section. Walter posits that by exposing the material density of the retina, Helmholtz's research on the eye allowed "the truth of vision [to become] grounded in the density and materiality of the body (9-10). That is, by introducing a new understanding of the eye, Helmholtz changed the way modernists thought about perception and the human body. I argue that Helmholtz's work altered Burke's understanding of the eye's connection to language, language's connection to the body, and the rhetorical implications of these connections.

Close examination of Burke's reference to Helmholtz in *Permanence and Change*, which I will soon analyze, reveals that Burke was familiar with Helmholtz's lectures more so than his *Treatise on Physiological Optics*. In his fourth chapter, titled "Argument by Analogy," of Part II, titled "Perspective by Incongruity," Burke makes his direct reference to Helmholtz. In this

section, which he intricately titles “Interrelation of Analogy, Metaphor, Abstraction, Classification, Interest, Expectancy, and Intention,” Burke indirectly applies Gestalt theory to the way that our language system classifies information by proposing that the brain takes the implications of two unlike things and gives them the same classification. Burke uses the example of fires and acids: because both substances burn, we assign a “burn-character” to them, which Burke interprets as “an ideality” or “a synthesis” (106). Thus, a problem rests in our mind’s way of creating a synthesis from two unlike characters. For Burke, this type of synthesis, or classification system, causes us to overlook “the many important differences” between the individual elements (106). The only solution to this issue for Burke is to break apart this synthesis and reevaluate our language construction: “And when [we change] the nature of [our] interests, or point of view, [we] will approach events with a new ideality, reclassifying them, putting things together that were in different classes, and dividing things that had been together” (106). Burke further extends this notion with a scientific example:

> As for those who would doubt the great value of analogy, or abstraction, or bluntness, or stupidity in the assisting of human expectations, let them take a piece of litmus and read its message by “analogical extension,” as it judges whether a chemical is acid or alkali by registering red or blue. So able is it in classifying, that *it can classify in no other way*, as regards its response to liquids at ordinary temperatures. Our scales too are inveterate classifiers, since they record by one scheme of abstractions and no other. Thus also with our most delicate instruments of precision, which are mere extensions of our vocabulary, a way of making definitions on a dial. (106, emphasis added)

With the example of the litmus test, Burke shows how science limits the parameters of its outcomes—that is, by defining the system of classification, the litmus test limits potential outcomes. And, importantly, this limiting process derives from language. To classify "acid" or "alkali" by "red" or "blue" is to apply humanly constructed symbols onto scientific phenomenon; once these symbols come to represent "acid" or "alkali," scientific observers can register information in no other way. Burke further shows how language restricts our understanding of the world around us: because we classify information, we can never know what exists outside of our classifications.

Burke explains that another cognitive process—abstraction—similarly limits what we can know. In this understanding of abstraction, we see that Helmholtz likely inspires his understanding of language's connection to the body, at least in the context of the senses. Relating the way that the senses classify information back to the litmus test, Burke explains:

> Our senses themselves are similar abstractors, abstracting or interpreting certain events as having a sound-character, a taste-character, a heat-character, a sight-character, etc., for as Helmholtz pointed out, our very sensory equipment is a set of recording instruments that turn certain events into a certain kind of sign, and we find our way through life on the basis of these signs.
>
> We even know that *there are events not interpreted at all by our sensory equipment*, ultra-violet rays for instance. (PC 106-7, emphasis added)

In this passage, Burke engages with two main ideas from Helmholtz: 1) senses classify information into wholes (or gestalts), and 2) "senses turn events into a certain kind of sign." And (as I will demonstrate below), for Helmholtz, these two ideas were intertwined: the brain's tendency to classify information into wholes is manifested through the brain's production of

signs that allow us to understand experience. Considering the similarity in language, Burke's source here is likely Helmholtz's lecture "The Recent Progress of the Theory of Vision;" tracing the connections between that lecture and this passage from *Permanence and Change* shows how Burke uses Helmholtz's theories, which provides us with a deeper understanding of Burke's terms.

From reading Helmholtz, Burke would have gained a thorough understanding of the way that the senses function, but in referencing Helmholtz in this passage, Burke interestingly chooses not to discuss how sensory equipment works. Instead, he discusses how sensory equipment fails—the way that our senses overlook certain aspects of our environment. Helmholtz was adamant that our senses do not give a true representation of the external environment; rather, they fill in gaps to create a synthesized whole (165). Even though the brain registers only a portion of the information the senses receive, we feel as though experience is an all-encompassing representation of reality. Helmholtz explains that we feel this way because the brain registers sensory information by generating hypotheses about incoming information and testing these hypotheses in conjunction with the other senses. Because our hypotheses are constantly tested and confirmed in the waking world, we come to assume, rather unconsciously, that our senses are infallible in representing the external world. As Helmholtz states, "This daily verification by our other senses of the impressions we receive by sight produces so firm a conviction of its absolute and complete truth that the exceptions taken by philosophy or physiology, however well grounded they may seem, have no power to shake it" (130). That is, we come to trust what our brains tell us our bodies are experiencing. In Burkean terms, the brain forms a system of pieties all its own, a system so deeply, neurologically rooted that not even our own bodies, much less the external world around us, could call this system into question. And

because the brain is ever creating constants, or wholes, to simplify the interpretation of information, we never consciously process a large portion of the information that the senses receive. Helmholtz describes how this process works in vision by stating:

> Out of this inconstant system of brightness and of colours, varying according to the illumination, varying according to the fatigue of the retina, . . . we are able to determine the proper colour of any object, the one constant phenomenon which corresponds to a constant quality of its surface; and this we can do, not after long consideration, but by an instantaneous and involuntary decision. (173)

So the senses receive mass amounts of information, but the brain classifies this information according to constants. From this lesson by Helmholtz, Burke learned to consider the brain as producing results similar to a litmus test. Just as a litmus test can only come out red or blue, so the information that the brain receives through the senses can only be classified according to the constants that the brain has previously set.

This system of classification, for Helmholtz, and in turn, for Burke, goes hand in hand with the system of signs by which the brain names such classifications. Helmholtz posits that the brain classifies information by constants because it functions according to a system of signs. Moreover, there is a direct correlation between signs and constants for Helmholtz; he defines a sign as a construct that develops when an object consistently matches up with the "functional cerebral activity" produced by an event in the external world (167). That is, each event in the external world excites the neural pathways of the brain in a specific, unique way, and a sign develops when the brain can consistently match that unique neural activity with an external object. We come to understand an experience when we have a specific language sign or name for that experience. When objects consistently line up with the brain's system of signs, this

"enable[s] the understanding to deduce what is constant from the varied changes of the external world, and to formulate it as a notion or a law" (167). In other words, the brain seeks to determine the occurrences most constant in the external world, searching for what external stimuli consistently match up with what sign. Once the brain determines what occurrences are constant and applies a sign to that occurrence in the external world, it formulates this sign as a law that is perpetually reinforced each time the sign consistently matches up with its respective external stimuli. Indeed, signs are only effective when they denote constants. Helmholtz insists that a good sign must "be constant"—in other words, "the same sign must always denote the same object" (168). Because the brain receives sensory information differently from each sense, it creates different signs according to the different senses. This distinction of each sense in our brain's system of signs prompts Burke to assign each sense its own "character." Recall in the passage in which Burke cites Helmholtz that he mentions "a sound-character, a taste-character, a heat-character, a sight-character, etc . . . that turn certain events into a certain kind of sign" (106). Burke acknowledges that the brain creates unique signs for each sense, but for him this acknowledgement indicates that the source of our faulty perception is not in the external world but with the mechanistic way that the brain creates signs. Helmholtz and the Gestalt theorists in Petermann's text championed the brain's ability to receive all of the contradictory information from the senses and unify this information into a whole that the brain could easily process, assign a sign to, and understand.[14] Burke, however, takes the aspect of the brain that they privilege and uses this to reinforce his thesis on orientation, piety, and trained incapacity: when the brain creates a whole, it fails to examine the many parts comprising this whole, and this failure is what keeps our trained incapacities and pieties in place.

[14] Most ophthalmologists and neurobiologists still do the same: see Gregory (1966), Miller (2000), Zeki (1999), and Livingstone (2002).

Helmholtz, however, does emphasize that these gaps in information processing cannot be attributed to the anatomical structure of the eye. That is, no physiological fault in the eye can be found for such gaps. Rather, the problem of these gaps is found in perception, or the way that the brain interprets sensory information: "The inaccuracies and imperfections of the eye as an optical instrument, and those which belong to the image on the retina, now appear insignificant, in comparison with the *incongruities* which we have met with in the field of sensation" (173, emphasis added). This statement underlies Burke's understanding and utilization of Helmholtz's theories: perception is full of incongruities, but we fail to realize these incongruities because we assume that our senses are infallible.

Indeed, the brain's ability to create a whole is exactly the problem for Burke. This is precisely the reason that he follows the paragraph in which he cites Helmholtz by stating: "There are events not interpreted at all by our sensory equipment" (106). Burke emphasizes the brain's ability to create wholes in order to highlight everything that escapes our awareness during this interpretation process. He likely would have considered the system of signs that the brain creates in order to classify information as neurological ruts—once these ruts have been established, our brain can "classify in no other way" (106). Burke's placement of the litmus test example next to his reference to Helmholtz signals that Burke intends to read the brain's interpretation of sensory information according to its limitations, not its constants. Working with Helmholtz's definition of signs, Burke observes that, "we find our way through life on the basis of these signs" (106), essentially claiming that we understand the world via signs that are full of incongruities. The problem is not that we have these incongruities—these will always exist within the senses, as Helmholtz proves—but that we do not realize we have these incongruities, leaving us unaware of the fallacies inherent to our signs. The brain, then, is the structure holding our biases in place,

constantly reinforcing a way of looking at the world that is filled with major acts of omission that we never call into question.

Towards an Optical Orientation

One way of reading *Permanence and Change* is to study all the specific aspects of language that Burke details, such as classification and abstraction, and take these explanations for what they tell us about the brain's ability to interpret information, but an equally productive way to read the book is to examine what Burke indirectly tells us about what the brain *omits* in its interpretation of information. Orientation is not the main problem because we cannot avoid creating an orientation; as our brain's system of interpretation, our basis of signs and symbols, we cannot make meaning without it. The problem is the piety and trained incapacity that prevents our orientation from evolving as we move, interact, and learn more about the world.

If we consider orientation, trained incapacity, and piety in terms of optical science (as Burke seems to have intended), then we understand that some neurobiological aspect of the eye hinders full information from making its way to the brain. We can describe the way that light, which is the eye's only way to receive information, enters the eye rather simply (even though it is quite an intricate process). As Figure 5 shows, light enters the eye through the pupil, passes through two different lenses, the cornea and the crystalline lens, then penetrates the retina. The cornea is the outermost layer of the eye that contains most of the eye's focusing capacity, but the cornea's focusing ability is constant. That is, the cornea's shape remains

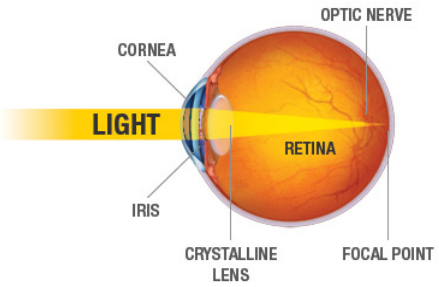

Fig. 5. Light Entering the Eye from Stephen Boado's "Eye" (Wikispaces, 2010; web; accessed 20 Oct. 2015).

constant at all times as it conveys a picture to the retina. On the other hand, the crystalline lens is located inside the eye and is responsible for fine focusing. During this fine focusing process, which is also known as accommodation, the lens constantly contracts and expands with the help of small muscles that hold the lens in place (Marmor and Ravin 11). Indeed, the lens is constantly adjusting so that it can reflect, along with the help of the cornea, the best possible image onto the retina. The retina contains millions of neurotransmitters that transmit this light energy into information and send this information to the brain. Margaret Livingstone explains that the retina actually begins to process information before the brain because it performs the first step of transmitting light into energy.

Placed in the context of the anatomical structure of the eye, orientation is the crystalline lens, due to its ability to change. As with our "interpretative lens," all sensory information must pass through this crystalline lens. Yet the crystalline lens develops a debilitating condition: a cataract. The cataract obstructs vision by preventing light from filtering through the lens properly, which then prevents the brain from receiving a unified signal: the more dense the cataract, the more the visual impairment (see Figure 6). Thus, if we read orientation as the crystalline lens, trained incapacity and piety function as a cataract—an obstruction in vision that prevents information from properly making its way to the brain. This depiction reinforces Burke's definition of trained incapacity as "blindnesses" (7).

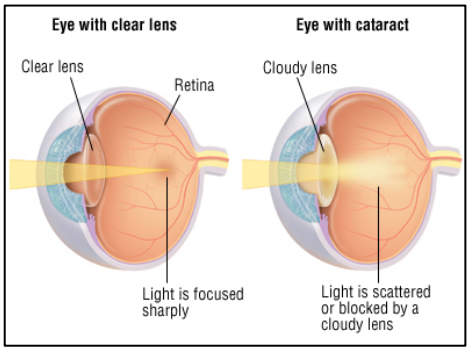

Fig. 6. Model of a Cataract from "Cataract" (Chew Eye Centre for Excellence, 2014; web; accessed 20 Oct. 2015).

Though Burke never placed orientation, trained incapacity, and piety in direct relation to the anatomical structure of the eye, the correlation between his terms and the eye perfectly captures his logic in *Permanence and Change*. That is, developing a figural cataract (trained incapacity and piety) in our interpretative lens (orientation) would result in "a way of seeing that is also a way of not seeing" (*Permanence and Change* 49). Burke's direct message, most specifically in this particular passage but also in his text as a whole, is that we cannot trust our senses. And if cannot trust our senses, then we cannot trust perception. If we cannot trust perception, then we cannot trust our way of receiving, interpreting, and using language because the basis of our language—signs—is derived from the brain's perceptual interpretation of experiences in the external world. After establishing that this problem exists in our perceptual system, affecting our interpretation of language, Burke must create yet another term, perspective by incongruity, that exposes the incongruities in our vision and help us to see, literally, the gaps in perception.

Chapter Three

A Double Take for Burkean Studies:

Re-Evaluating Perspective by Incongruity

> We are trying to suggest that the matter may not be one of active forgetting, but may involve *the nature of attention* in the first place. We are proposing that the metaphor be tentatively shifted from a legalistic one suggesting repression to *an optical one suggesting focus*.
>
> (*Permanence and Change* 141, emphasis added)

Knowing that Burke's conception of orientation, piety, and trained incapacity derived at least in part from an optical context should change the way that we evaluate another of his terms in *Permanence and* Change: perspective by incongruity. If Burke considered the problem inherent to our worldview as rooted in the way that the eye relays information to the brain, then the tool that he devises as a solution to this problem must be able to change how the eye receives and relays this information. Burke's direct optical reference—his mention of Hermann von Helmholtz—also appears in Part II of *Permanence and Change*, which is titled "Perspective by Incongruity." Burke's definition and extended discussion of the term frames his reference to Helmholtz, and from that point in the text, his discussion of perspective by incongruity becomes increasingly optical in nature.

Burke describes perspective by incongruity's most basic function as "a way of seeing two things at once. It's the whole principle of an ironic approach to something" (qtd in Skodnick 10). In *Permanence and Change*, Burke presents humor as a prime example of perspective by incongruity (111-12). For instance, when comedians retell a political news story, they convey a

representation of the story that is far removed from reality. Irony allows people to see an event and a skewed representation of that event simultaneously, gaining the ability to evaluate the event by viewing it from another perspective. Debra Hawhee explains that the origin of perspective by incongruity—the philosophy of Friedrich Nietzsche—allowed Burke to champion a pluralist perspective of the world from which incongruity derives as "the clashing of different perspectives" (134). Similarly, Sonia Foss utilizes perspective by incongruity in her classroom to teach students that rhetorical theory extends beyond oral dialogue and written text, but that "visual phenomena can be used to teach rhetorical theory" (57). Unlike Foss, however, most scholars define perspective by incongruity in linguistic terms. Rosteck and Leff describe perspective by incongruity as "a linguistic impiety, an upsetting of normal patterns of association" and as a "wedge that pries apart established linkages," all the while "prepar[ing] for a new fusion" (330). Ann George similarly defines Burke's term as "a program of defamiliarization" (24) that includes, but is not limited to, linguistic impiety. Other scholars, such as Blakesley, Bostdorff, and Jasinski, have employed the term to show the transformative power of metaphor. And while metaphor, as Blankenship, Murphy, and Rosenwasser point out, is vital to the way perspective by incongruity functions, understanding the term only in relation to metaphor does not do justice to its complexity. Though metaphor juxtaposes mental images in order to produce a new experience, perspective by incongruity holds the power to retrain the brain's neurological structure that is incapacitated by our orientations, or our skewed way of looking at the world. Indeed, scholars have yet to establish the biological, specifically optical, implications behind Burke's term.

A detailed examination of Burke's engagement with Helmholtz's lectures and Bruno Petermann's *The Gestalt Theory and the Problem of Configuration* reveals Burke's

understanding of how the brain interprets visual perception: the brain simplifies and abstracts all information it receives and reconfigures this information into wholes. In the case of sight, the eye does not *see* anything at all; instead, the eye receives signals from the external environment, sends these signals to the brain, then the brain produces a holistic picture most representative of the external environment, discarding details in the sensory environment that do not fit into the holistic picture. Thus, the brain sees, not the eye. For Burke, this interpretative system is problematic because it fails to register the incongruous details that the brain discards. If left unquestioned, this method of interpretation forms neurological ruts. Further, if our way of looking at the world becomes incomplete, then our understanding of this world, which is discovered and articulated through language, is also inherently incomplete. After establishing that orientations exist and that they are inextricable from bias, Burke's task in *Permanence and Change* is to break apart our orientations (a process he calls disorientation) and attempt to rebuild a better worldview (reorientation). Both disorientation and reorientation is the work accomplished through perspective by incongruity.

Written in 1933 at the height of the Great Depression and amongst apprehension of an impending world war, *Permanence and Change* addresses the broken nature of 1930s American society that was in need of reorientation and regeneration (George and Selzer 135). Theorists from every school of social and political thought offered solutions for America's ailments, and Burke feared that the general population did not have the tools necessary to repel the dominant, scientistic ways of thinking and usher in the soothing benefits of art. Indeed, Burke proposed that aesthetics could bring societal chance, thus implying that the aesthetic "functions in the sociopolitical realm" (George and Selzer 105). Burke also connected the aesthetic with the

biological[15] and neurological base of man. Perspective by incongruity, then, serves as the tool that bridges the gap between biology, art, and society: using mental images and language, perspective by incongruity alters biological and neurological processes that changes individuals, which then has the potential to change society.

While Burke's perspective by incongruity may have derived in part from Nietzsche, other major sources with which he extensively engaged during his drafting of *Permanence and Change*—Bruno Petermann's *The Gestalt Theory and the Problem of Configuration*, Helmholtz's scientific lectures, the symbolist writing of Remy de Gourmont, and the work of phenomenologist Henri Bergson—altered how he understood the incongruences inherent to perception. Though the "perspective" portion of the term derived largely from Nietzsche, the "incongruity" portion derived from Burke's engagement with optical science, which he approached through Gestalt theory. Reading Nietzsche, Helmholtz, and Petermann within the same time span allowed Burke to view the theories in relation to each other, producing a term—perspective by incongruity—that is theoretically, biologically, and ophthalmologically rooted. To examine the full extent of Burke's term, we must explore how perspective by incongruity works neurobiologically—that is, how Burke intends for perspective by incongruity to work in the brain and how optical science allows him to construct a tool that changes how we think by changing how we see.

To reexamine Burke's perspective by incongruity, I will begin with textual analysis of the passages in *Permanence and Change* in which Burke defines and redefines his term by tying it to Remy de Gourmont, Nietzsche, and Bergson, respectively. Through these references, Burke reveals the brain's tendency toward abstraction and proposes the need for the brain to view a

[15] Once again, I recommend Jordynn Jack's "'The Piety of Degradation': Kenneth Burke, the Bureau of Social Hygiene, and Permanence and Change" for a discussion on how biology influenced Burke's concept of metabiology.

multiplicity of images simultaneously. Examining perspective by incongruity optically allows us to view Burke's term as a methodological tool for reorienting the way individuals see, and thus interact with, the world around them. Next, I will evaluate the extent to which perspective by incongruity functions according to Burke's understanding of ophthalmological occurrences, such as blurry vision, optical illusion, and diplopia (double vision), all of which produce alterations in perception. Such alterations serve as transformative experiences that help to retrain the brain. Finally, I will examine how perspective by incongruity operates in the brain according to the matter of contrast, serving as a neurobiological apparatus that aids the brain's way of interpreting information.

Perspective by Incongruity as Multiplicity and Abstraction

Tracing perspective by incongruity's ties to the theories that Burke mentions—Remy de Gourmont, Friedrich Nietzsche, and Henri Bergson—will allow for a full understanding of how the term functions as a biological, specifically optical, tool. Throughout *Permanence and Change,* Burke builds and refines his definition of perspective by incongruity. Each new theorist whom Burke ties to the term adds a new angle to the creation and function of the mental tool, which is all the more important since Burke used perspective by incongruity to emphasize the need for pluralist perspectives. Indeed, I suggest that perspective by incongruity is not only a methodology that juxtaposes incongruous words with one another, but also a heuristic that promotes the invention of incongruous perspectives.

Burke first describes perspective by incongruity in the prologue of *Permanence and Change*, and he defines the term in reference to French symbolist writer Remy de Gourmont. Burke states that perspective by incongruity "was the other side of Remy de Gourmont's formula

for the 'dissociation of ideas'" (liv). In his first critical book, *Counter-Statement*, which was published in 1931 and is more explicitly a book of literary criticism, Burke explains de Gourmont's dissociation of ideas as such: "He loves to show that a concept which we generally take as a unit can be subdivided" (22). He then briefly quotes de Gourmont's commentary on dissociation: "Man associates his ideas, not in accordance with logic, or verifiable exactitude, but in accordance with his desires and his interests" (23). In other words, the concepts or "unit[s]" in our minds are compiled according to the predilections of desire, the "interests" compiled by the brain's associative, subjective processes, not with "objective" notions of logic. Further in *Counter-Statement*, Burke laments that de Gourmont "did not carry his dissociative method into the realm of literary criticism" because "the method was clearly a companion discovery to symbolism, which sought its effects precisely in utilizing, more programmatically than in any previous movement, the clusters of associations surrounding the important words of a poem or fiction" (23-24). Here we see that Burke's greatest interest in de Gourmont's dissociation of ideas is in its ability to produce symbolist effects.

In his Prologue to *Permanence and Change* and to the idea of perspective by incongruity, Burke reengages with de Gourmont's "dissociation of ideas" and defines it as a type of "fission" in its "methodic blasting apart of verbal particles that had been considered inseparable" (liv-lv). He then establishes perspective by incongruity as "the merger of particles that had been considered mutually exclusive," a method he envisions as a type of "fusion" (lv).[16] As I will show in the following discussion, however, Burke spends most of his text showing how

[16] George has commented on the frequency that the language of physics permeates Burke's writing. Here, Burke pays attention to physics at the atomic level, but an archival document reveals Burke's engaging with Petermann's (thus Gestalt's) representation of thermodynamics. It seems, then, that Burke often considered how microprocesses (light rays, optics, etc.) interplayed with macroprocesses (seeing, imagining, etc.).

perspective by incongruity produces "fission" or disorientation before he reaches the "fusion" or reorientation stage of the process.

Burke not only establishes perspective by incongruity as a mental disorientation of words and symbols, but also as a visual disorientation. Relating to de Gourmont's and thus perspective by incongruity's relation to Symbolism, Burke describes the term as similar to "the procedure of certain modern painters who picture how an object might seem if inspected simultaneously from two quite different positions" (lv). Indeed, Symbolism allows Burke to consider how visual images and mental concepts change with different physical points of view. Every angle matters in vision, and every angle produces a different image for the viewer. Burke emphasizes that the particular angle from which someone finds him- or herself gazing at an object is not the only angle from which it derives meaning. Thus, he desires for perspective by incongruity to introduce the presence of multiple perspectives that are necessary for interpreting material images. Further still, as we see with his reference to Nietzsche, Burke intends for perspective by incongruity to bring disorientation not only to the eye that gazes at material images but also to the mind's eye that interprets mental images.

Just before Burke begins his third chapter, "Perspective as Metaphor," he applauds Nietzsche's *The Will to Power* for its excellence in "the establishment of perspectives" (88), which deals indirectly with mental images and the interpretative process that composes these mental images. *The Will to Power* is a comprehensive collection of Nietzsche's notes from 1883 to 1888 that the philosopher never intended for publication. Nevertheless, the philosopher's sister, Elisabeth Förster-Nietzsche, posthumously published Nietzsche's work as his "crowning

achievement" (Nietzsche xiii) and this is likely how Burke understood the work.[17] Similar to de Gourmont, Nietzsche's "perspectivism" emphasizes that there are no objective realities, "only interpretations," and these interpretations are "made from a definite perspective" (149). For Nietzsche, there are as many interpretations as there are perspectives because each individual interprets, via language, from his or her point of view.

Though Nietzsche does not rely upon optical science as directly as Burke, his definition of perspectivism in *The Will to Power* inherently connects image with language in the brain. Nietzsche conflates perception with perspective, or more accurately, he insists that perception is contingent upon perspective: the perspective through which we view and interpret an experience alters how we perceive that experience. For Nietzsche, perception is never isolated to a single stimulus; instead, it is colored by past interpretations of similar experiences: "Our sense perceptions are already the result of this assimilation and equalization in regard to *all* the past in us; they do not follow directly upon the 'impression'" (273). In other words, every sense perception derives meaning from the past, either by assimilating a sense perception to a similar experience in the past or by directly equating it with a past experience. For instance, if an individual touches a hot stove for the first time, he or she may assimilate this experience with a past sensory experience caused from touching a hot oven. Though the experiences are not the same, the sense perceptions perceived during each experience are similar enough for the brain to assimilate them into a singular category. Nietzsche further explains that the past from which we derive meaning is a compilation of mental images in the mind or "the spirit" (275). He breaks down the process through which images come to have meaning through language:

[17] Only after World War II did scholars acknowledge that *The Will to Power* was not Nietzsche's "*magnum opus,*" but rather fragments of his draft for an unpublished work. See Walter Kaufmann and R. J. Hollingdale's introduction to his translation of *The Will to Power*.

> First *images*—to explain how images arise in the spirit. Then *words*, applied to images. Finally *concepts*, possible only when there are words—the collecting together of many images in something nonvisible but audible (word). The tiny amount of emotion to which the "word" gives rise, as we contemplate similar images for which *one* word exists—this weak emotion is the common element, the basis of the concept. That weak sensations are regarded as alike, sensed as *being the same*, is the fundamental fact. (275)

As Nietzsche explains, a multiplicity of mental images exists for any *one* word. Yet if these multiple images are not stark enough in contrast, then the interpretative process subsumes and translates them into a singular concept. Essentially, the brain takes the multiplicity of images, groups like images together, and conveys a singular concept for those many images.

Thus, the formation of Nietzsche's "perspective" reiterates the optical precepts that Burke encountered in Helmholtz's lectures and the theoretical concepts in Petermann's review of Gestalt theory: the brain overlooks many details through the process of interpretation. Placing his knowledge of Nietzschean philosophy in conversation with his reading of Gestalt theory enabled Burke to compose a more nuanced understanding of the unity of "gestalt" as proposed by the theorists in Petermann's text. Concerning all of the sensory information that enters the brain, Nietzsche remarks, "Everything that enters consciousness as 'unity' is already tremendously complex: we always have only a *semblance* of unity" (270). That is, we believe that we experience a unified event, but this is only our brain interpreting unity from the disparate images that it receives from the sensory environment. If, as Nietzsche insists, all sensory information is filtered through perspective and perspective is inherently shaped by our past memories, then in order to change our perspective, and thus our ways of perceiving the world around us, Burke

suggests that we must retrain the brain to see things in different ways. The way to deliberately retrain the brain, for Burke, is by juxtaposing incongruous perspectives against one another (perspective by incongruity)—the deliberate nature of which makes it a type of "planned incongruity."[18] As Burke explains:

> Nietzsche knew that probably every [verbal or mental] linkage was open to destruction by the perspectives of a planned incongruity. Throughout his life he "undermined," carefully qualifying his nouns by the juxtaposition of modifying matter that had the "wrong" moral inclination. The humorists, the satirists, the writers of the grotesque, all contributed to this work with varying degrees of systematization, giving us new insights by such deliberate misfits. (*Permanence and Change* 91)

"Misfits" is perhaps the best way to describe the intended effect of perspective by incongruity: to present the brain with a mental image that is so contrary to what is expected that the brain cannot assimilate it with any previous experience in its memory and is forced to remember it.

In chapter three of "Perspective by Incongruity," Burke begins to emphasize why incongruity must be privileged over congruity, relying on the work of Henri Bergson, a French philosopher of the late nineteenth and early twentieth century famous for his 1886 text *Matter and Memory*, a treatise that seeks to determine the role of the brain in memory and the interaction between the body, mind, and spirit. Burke's knowledge of Bergson derives from *The Misuse of the Mind*, a text written by Karin Stephen, one of Bergson's students, and published in 1922 to explain Bergson's essential theories contained in *Matter and Memory*. Stephen confirms that Bergson believed what Burke understood through Helmholtz, Petermann, de Gourmont, and

[18] Burke often refers to the methodological process of intentional misnaming as "planned incongruity," which is more like a *system* of misnaming instead of an instance of incongruity. See George's *A Critical Companion to Kenneth Burke's* Permanence and Change, especially p. 29.

Nietzsche: "a falsification due to preconceived ideas, runs right through the whole of direct experience" (Stephen 21). Stephen explains it another way: the brain abstracts information and we confuse these abstractions with fact (58). If what we think about direct experience cannot be trusted, and the language we use to convey direct experience cannot be trusted, how can we arrive at any sort of reasonable meaning? Burke believes the key lies in the way that Bergson conveyed his own ideas through writing—how he achieved meaning through the use of metaphors that evoked incongruous mental images and ideas.

Burke details that whereas Nietzsche uses planned incongruity, Bergson goes one further by indirectly explaining how such a process could work. Stephen describes Bergson's self-contradictory style of writing thus: "Bergson is driven into perpetual self-contradiction, indeed, paradoxical though it may sound, unless he contradicted himself his description could not be a true one" (12). Bergson's habit of using metaphor to contradict himself exemplifies Burke's goal for planned incongruity: a method that allows words, phrases, and images to contradict themselves in order to reveal new perspectives on those words, phrases, and images. Though Stephen discusses Bergson's use of metaphor as a systematic way of revealing truth, Burke interprets Bergson's style of writing as the use of "incongruity as a *system"* (92). But why would Bergson need such a system? And why would Burke compose a methodology of perspective by incongruity to teach such a system to other people? Burke explains that "words have a limited validity. Their very purpose being to effect practical simplifications of reality, we should consider them inadequate for the description of reality as it actually is" (92). Essentially, our ordinary use of language—using words and phrases that have been abstracted from the objects they describe—does not reflect our experiences; therefore, we must construct a new language system that operates contrary to our former way of knowing if we are to arrive at a closer

depiction of experience. This new system, exemplified by Bergson, "deliberately cultivate[s] the use of contradictory concepts" that "will not give us the whole of reality" but "will give us something more indicative than is obtainable by the assumption that our conceptualizations of events in nature are real" (*Permanence and Change* 94). For example, if individuals see an advertisement for a product and they take this advertisement at face value—considering it "true"—then they will never question the motives or ideologies below the surface of this advertisement. Yet if such individuals were trained to examine advertisements with multiple and sometimes contradictory perspectives, then they would be able to determine the best way of interpreting the "truth" of advertisements. Indeed, we must champion incongruity in our reasoning if we are to obtain a fuller representation of our day-to-day experiences.

Placing Burke's engagement with Bergson into relation with his references to Nietzsche and de Gourmont, we arrive at a fuller picture of his construction of perspective by incongruity. The work of de Gourmont's modern symbolist writing and optical science allowed Burke to realize that truth can arrive via distortion. The work of Nietzsche brought Burke to understand that if we only consider an event based on the simplistic mental images that the brain offers, we might never be able to look at that situation from another perspective. Perspective by incongruity better captures the multiplicity of images that exists within each cohesive concept that the brain produces. Bergson's style of writing showed Burke that juxtaposing contradictory, antithetical words allows us to view a multiplicity of perspectives before interpreting our experiences. Ultimately, perspective by incongruity seeks to bring a multiplicity of images into the forefront of the interpretative process, making individuals aware of all that they normally miss. Because the processing of the brain will eventually affect the movements and actions of the body, how we "see" mental images affects how we move about in external sensory environments.

Perspective by Incongruity as Alterations of Vision

As *Permanence and Change* progresses, Burke begins to identify perspective by incongruity at work in literature, especially sources that employ humor or the grotesque. Discovering perspective by incongruity in Ancient Greek comedies, Burke reveals how humor can change people's perspectives: "Aristophanes was a humorist, excoriating new ways with reference to traditional test of propriety" (112). More abruptly, the grotesque provides a blunt jolt to an individual's perspective: "The gargoyles of the Middle Ages were typical instances of planned incongruity. The maker of gargoyles who put man's-head on bird-body was offering combinations, which were completely rational as judged by his logic of essences. In violating one order of classification, he was stressing another" (*Permanence and Change* 112). As Burke continues to explore the past, present, and future ramifications of perspective by incongruity, his references to the term become more and more optical, highlighting the importance of mental imagery, not only in perspective by incongruity but also in the brain's interpretative processes. Burke reveals three main optical references that represent how he envisioned the term functioning as a mental tool that can dismantle people's dominant worldview: 1) blurring and distorting vision, 2) working as an optical illusion, and 3) displaying multiple images to view simultaneously.

Because human vision typically changes slowly, individuals rarely question their eyesight, and presenting individuals with a completely distorted picture of reality often allows them to evaluate their own eyesight in a way that they could not otherwise. During an examination for eyeglasses, optometrists will often begin by presenting patients with an intentionally blurry visual image, after which they provide continually clearer options. Patients must first experience "blurry" vision as a basis of comparison in order to determine which lens is

"clear." Similarly, Burke explains that using different vocabulary disrupts perspective, or an individual's ability to interpret information in a certain way, in the same way that presenting the mind with different ways of seeing does. Just as a slight blur in vision will allow individuals to see the clarity in a new lens, the destabilizing of old language structures allows for new, clearer understandings of communication, as Burke observes, "One sees perspectives beyond the structure of a given vocabulary when that structure is no longer firm" (117). Thus, perspective by incongruity works to blur the dominant perspectives inherent to our orientation. And because these dominant perspectives are built into individuals' understanding of language, the most efficient way to dismantle these perspectives to make way for new language associations is by blurring their old way of seeing. Burke explains how he envisions the process of perspective by incongruity working: "[It] should be deliberatively cultivated for the purpose of experimentally wrenching apart all those molecular combinations of adjective and noun, substantive and verb, which still remain with us. It should subject language to the same 'cracking' process that chemists now use in their refining of oil" (119). Recalling Burke's engagement with Nietzsche and Bergson, we understand that the breaking apart of words would dismantle the fused, single image, unveiling the multiplicity of mental images that make up this single word or symbol.

Yet Burke insists that if a given perspective or orientation is too rigidly fixed in place, then simply blurring vision will not do; instead, drastically distorting vision is necessary. As Burke writes, "Where the accepted linkages have been of an imposing sort, one should *establish perspective by looking through the reverse end of his glass*, converting mastodons into microbes, or human beings into vermin upon the face of the earth" (120, emphasis added). Here, Burke argues that in order to see things clearly, we must opt for a lens that will radically distort or alter perspective as we know it. Indeed, only through distortion will we be able to see things

differently. Looking at things through the reverse end of a glass will distort what we previously saw through the "proper" end of the glass, proving that our interpretation of the image was not the only possible interpretation; such indeterminacy thus threatens our understanding of the ideological status quo. This drastic manipulation of viewpoint would make our own perspective briefly unrecognizable, a feat that allows us to interpret the experience from another perspective. Burke insists that this drastic change in our point of view is necessary if we are to understand how we came to live in the world that we currently inhabit. And with this insistence, Burke's theoretical perspective by incongruity becomes a deliberate "planned incongruity," a method or "heuristic" to change perception, as he writes:

> Or let us even deliberately deprive ourselves of available knowledge in the search for new knowledge. . . . Imagine, then, setting out to study mankind, with whose system of speech you are largely familiar. Imagine beginning your course of study *precisely by depriving yourself of this familiarity*, attempting to understand motives and purposes by avoiding as much as possible the clues handed you ready-made in the texture of the language itself. In this you will have deliberately discarded available data in the interests of a fresh point of view, the heuristic or perspective value of a planned incongruity. (*Permanence and Change* 121)

A "fresh point of view" comes when we look from the opposite end of the glass, reverse or distort our vision, and thereby dismantle the stability of our dominant perspective. We see, then, how perspective by incongruity becomes "the counter-process" of piety (qtd. in George 24)—it presents all of the "wrong" images so that we are better informed in selecting the images and language associations around which we build our lives.

Burke further suggests that perspective by incongruity cannot only function as a lens to blur or distort vision, but it can also change the depth at which our eye, more specifically our mind's eye, focuses—an optical occurrence that Gestalt theorists used to explain the presence of optical illusions. Discussing the recollection of soldiers' first experiences in combat represented in A. H. Burlton Allen's *Pleasure and Instinct*, Burke details their heightened sense of perception—"the grass became a more vivid green; each flower . . . seemed unusually beautiful" (140-1)—in the presence of fear and dread. Burke suggests that soldiers' understanding of such events may derive from the placement of their vision, and subsequently their attention. As he states, "The matter may not be one of *active forgetting*, but may involve *the nature of attention* in the first place. We are proposing that the metaphor be tentatively shifted from a legalistic one suggesting repression to an *optical one* suggesting focus" (141, emphasis added in last line). Terror, for Burke, is one such heightened emotion that can change our visual, and thus our mental, focus. He details his point even further by explaining that an individual with a toothache may momentarily "forget" his pain if an exciting event draws his visual and mental attention elsewhere. Further still, Burke relates this discussion of focus to Gestalt theory: "Whether one chooses to believe such a possibility or not, one can refer to the chickens[19] of the Gestalt experiments as evidence that an organism can be conditioned to a *relationship* as well as to an *absolute*" (141). Burke's explanation details that the brain's tendency to create wholes, or gestalts, from perceptual information is what forces our attention to certain parts of the sensory information and not others. This type of focus then would be an unconscious process, and perspective by incongruity would work as the tool that alters the brain's focusing power.

[19] Wolfgang Kohler trained chicken to peck grains from lighter or darker sheets of paper. Chickens trained to peck from a light sheet of paper could transfer this skill to other similar sheets of paper.

Functioning as a mental heuristic, perspective by incongruity creates the same effect on the brain as optical illusions, or the way Petermann explained optical illusions in his 1932 text. Indeed, the language Petermann uses to describe Gestalt theorists' understanding of optical illusion mirrors Burke's discussion of perspective by incongruity as a matter of focus. Figure 7 shows Petermann's representation of the "inversion phenomenon" that Edward B. Titchener theorized, and Kurt Koffka critiqued, as an example of the way that the brain transitions focus between the "figure" and the "ground" (160). Petermann explains:

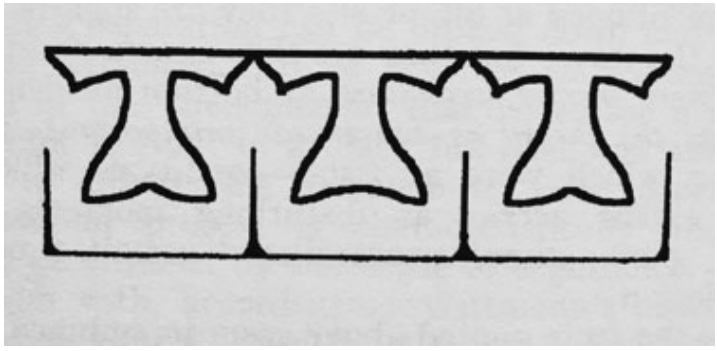

Fig. 7. Example of the Inversion Phenomena from Bruno Petermann's *The Gestalt Theory and the Problem of Configuration* (London: Kegan Paul, Trench, Trubner & Co., 1932; print; 163).

> This figure reveals very impressively how at one time one can see a row of black T's, and how thereafter, with a sudden reversal, a row of white leaves on a black background, can appear Titchener's "explanation" of this phenomenon makes use of the *differentiation of various degrees of consciousness, which is related to the old-fashioned concept of Attention*. In [Titchener's] opinion, the emergence of the T's has a very simple cause: "The black T's are on the upper level of consciousness, while the rest is at a lower level;" and so, also, he imagines the reversal to be easily explained; all that has occurred is merely a change in that "level." (163)

Applying this passage to Burke's discussion of "focus" helps us to see what Burke meant with this second optical definition for perspective by incongruity: there are always multiple ways of interpreting any concept or word, but our dominant perspective consistently reinforces a single

interpretation. Perspective by incongruity, then, becomes the tool that allows our eyes and our brains to lose focus on its dominant view (the T's) for a brief moment in order to view an alternative interpretation (the leaves). In other words, perspective by incongruity brings a different perspective to the forefront of our attention. That is, perspective by incongruity's function changes whether we are looking at the figure or the ground, the T's or the leaves.

Burke's last optical definition of perspective by incongruity arrives near the end of his career when he reports a physiological change in his vision that occurred when he began writing about perspective by incongruity: double vision, or diplopia. In 1983, fifty years after he originally drafted *Permanence and Change*, Burke composed an "Afterword" in which he describes perspective by incongruity as an "ironic kind of double vision" (314). Two years before in an interview with Roy Skodnick, Burke remarked that while he drafted *Permanence and Change* he began to see double images: "Perspective by incongruity is a way of seeing two things at once. . . . And by God, I did start seeing double" (10). Indeed, a concept that would become an epistemological tool used to disrupt our mental images and our language associations evolved due to Burke's personal experience with unresolved diplopia. Burke explains the episode, at length, in the 1984 "Afterword" to *Attitudes Towards History*:[20]

> At a time when I was focusing on the concept of "double vision"…the twist of vision became actual. . . . I was driven to a hospital, where I consulted an expert neurologist . . . Yet so far, no diagnosis . . . So I diagnosed the situation thus: When speculating on the resources of the term "double vision" at the same time that I was shifting my perspective on my own books on perspective, I began seeing double . . . I clearly "solved" the dizzying formal problem [with] the

[20] In the same "Afterword," Burke describes *Attitudes Toward History* as the "companion volume to *Permanence and Change* . . . not just a sequel, but in one respect an early revision of the first" (377).

> Nietzschean theme of "transvaluation". . . . My recovery followed forthwith—and you can't imagine what a truly sybaritic delight it was, to look down the road and see just one car coming. (*Attitudes Towards History* 399)

Burke's diplopia was not resolved by a doctor but from his realization that perspective by incongruity was not only a tool to bring disorientation but also reorientation (however coincidental that realization was with the resolution of his diplopia), a discovery that he credits to Nietzsche's "transvaluation," which can be defined as the reevaluation of all values.[21] Burke describes Nietzsche's goal of reorientation and his methodology for achieving orientation as such: "His subject-matter was specifically that of reorientation (transvaluation of *all* values)—yet in facing the *problematical new* he spontaneously felt as a poet that he could glorify such a concern only by utilizing the *unquestioned old"* (87). With this explanation of Nietzsche's "transvaluation" as a method of reorientation, Burke defines his purpose for perspective by incongruity before he ever introduces the term. We can now consider perspective by incongruity as introducing a multiplicity of mental images to break apart our "*unquestioned old*" mental images, thus creating a "*new"* perspective. Whether he realized or intended this as he was drafting *Permanence and Change*, Burke uses Nietzschean philosophy not only to introduce the need to see multiple images, but also the need to allow that multiplicity to change how we think about the world and the actions we take in that world. As Burke experienced, in order to understand the world in a different way, sometimes we have to *see* the world in a different way.

[21] "The Reevaluation of All Values" was also the working title for the book that Nietzsche was drafting when he died (see Nietzsche xxvii). His sister compiled his notes for this manuscript and it became known as *The Will to Power*.

Perspective by Incongruity as a Matter of Contrast

By discussing perspective by incongruity as a matter of "attention" and "focus," Burke implies that the direction of our focus can be a conscious process. That is, we focus on what we want to see and subsequently what we do not want to see. But there is also an unconscious process in the eye, of which Burke would have been aware through Petermann's text, that selects what the brain "sees" or what the brain selects to interpret and to discard. This process centers on the optical principle of contrast. This unconscious part of the brain's interpretative process is vital to understanding perspective by incongruity; after all, before language can become a conscious process subject to human manipulation, it is first learned through unconscious processes.

As we know, the brain does not interpret all sensory information from the eye. We can think of the brain as working with mental snapshot images: the brain receives a snapshot of information, but then selects what aspects of that snapshot it will bring into focus and interpret as a clear mental image. This process of focus and interpretation is based on contrast. The more stark the contrast, the more likely the brain will interpret the information. Thus, I posit that perspective by incongruity, as a device specializing in the breaking apart of mental images, also works on this optical principle of contrast. The more incongruous the mental image, the more likely the brain will interpret and retain the information.

In *The Gestalt Theory and the Problem of Configuration*, Petermann comments on the Gestaltists' interpretations of German physiologist Ewald Hering's theory of "colour contrast"[22] (172), which Hering officially titled "opponent color theory" (Hubel 172). David Hubel, a Harvard neurobiologist, explains that Hering's opponent color theory opposed the trichromatic

[22] Burke also would have been familiar with this sort of color theory from Helmholtz's lecture, "The Recent Progress of the Theory of Vision," which talks about Goethe's theory of colors.

theory of color vision, which details that of the millions of cones that exist in the retina of the eye, there are three types: those sensitive to blue, green, and red. Contrastingly, Hering posited that the retina interprets color oppositionally: red versus green, yellow versus blue, and black versus white (Hubel 172-73). While Hering remains known for his theories in color vision, Petermann only remarks on his black-white theory. Rather than registering what occurs in one particular region of the visual field (as with colors), the black-white process "requires a spatial comparison, or subtraction of reflectances" (Hubel 173). That is, the production of black and white depends on the regions surrounding it. Instead of measuring each retinal cone's individual response, the eye records the differences between each cone's response (Foster 921). Petermann conveys the Gestalt theorists' interest in Hering's notion of opponent color theory by showing a picture (see Figure 8) and describing the optical illusion as such: "Using a black cross upon a white ground he introduced small, grey-coloured, right-angled triangles of equal dimensions, as contrast-fields, firstly in one angle of the cross, and secondly upon one of its arms. The result was that the grey field lying in the angle of the cross appeared dark in comparison with the field introduced upon the arm of the cross" (173). Gestaltists W. Benary and Max Wertheimer tried to prove that the appearance of such contrast fields was a result of "gestalt processes," of which Petermann was not convinced. Petermann only concedes "that the colour is influenced in relation to the configurational organization must be admitted" (175). In other words, within any given

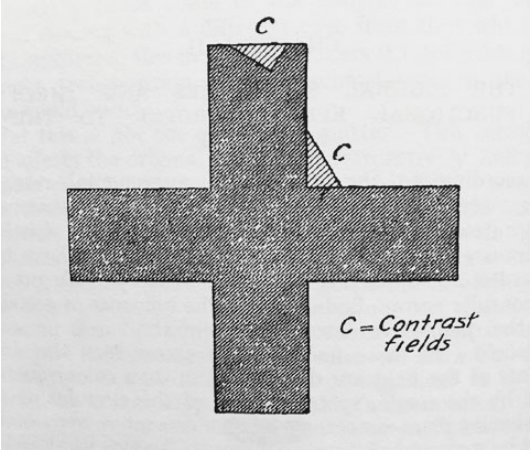

Fig. 8. Example of Color Contrast from Bruno Petermann's *The Gestalt Theory and the Problem of Configuration* (London: Kegan Paul, Trench, Trubner & Co., 1932; print; 171).

visual field, a multitude of contrasting colors and hues are present, and the brain interprets each focal point according to its contrast relative to the other colors around it. For Petermann, the Gestalt theories could not properly explain this phenomena away, but he lingers on the fact that contrast does seem to rule as a major function of the eye.

Later in his text, Petermann discusses contrast once again, this time in relation to brightness. Discussing the differentiation between "figure" and "ground," he remarks, "When the difference between the stimuli is slight 'an assimilation takes place, whereas by contrast, when the differences between the stimuli are greater a law of relief holds good'" (222). In other words, if the contrast in hue between the figure and the ground is slight, then an observer will not likely notice the difference between the two. From his close reading of Petermann, Burke would have been acutely aware of contrast theories circulating in optical science and Gestalt theory during his time, aware that the brain registers those impulses that are held in relief or most distinct from the other things surrounding it. Burke understood that the brain registers and remembers contrast. We see Burke's understanding of contrast manifested in his first critical book *Counter-Statement*. In an essay titled "The Poetic Process," Burke discusses the "innate forms of the mind" (46), which is his way of explaining that basic neurology works the same for all humans. As he states, "These 'forms' may be looked upon as minor division of two major 'forms,' *unity* and *diversity*. In any case, both unity and diversity will be found intermingling in any example of such forms. *Contrast*, for instance, is the use of elements which conflict in themselves but are both *allied to a broader unity*" (46, emphasis added). In detailing the formation of the human brain, Burke relates to Gestalt theory—the "broader unity" of things—and contrast. In other words, contrast between the parts of any given gestalt helps us to better understand the nature of the gestalt. He goes on to explain how his "forms of the mind" differ from Platonic forms by

stating, “There need not be a ‘divine contrast’ in heaven for me to appreciate a contrast; but there *must be* in my mind the sense of contrast” (48). So here we see that Burke’s conceptions of the universals that remain the same for any human mind are rooted in gestalt, or the brain’s ability to unify parts into a whole, and contrast is a basic human process that helps to reveal the nature of wholes.

Thus, to target the neurological ruts in our brain, Burke knew that he had to deal in matters of contrast. He knew that in order for art to be effective it had to produce mental images that lasted, and optical science provided the explanations of how visual images become established in the brain. By studying gestalt and the visual pathway to the brain, Burke was able to create terms that worked the visual pathway backwards. That is, the visual pathway takes in sensory information from the external world, connects with our memory and association cortex, and creates mental images that give us a “picture” of reality. Burke’s perspective by incongruity functions to break apart these stored mental images, thus breaking apart the language associations stored in our memory as well as how we understand and interact with the external world. The function of perspective by incongruity is to disrupt, but Burke’s hope was that this disorientation would lead to reorientation. For the individual, reorientation would entail changing their worldview. For society, reorientation would provide a needed change in the world. And in a time when most philosophers, writers, and critics were offering opinions and theories for how to change society, Burke offered a mental tool, a biological heuristic, an optical device, that could, scientifically, enact change. Late in life, Burke declared that “the middle section, ‘Perspective by Incongruity,’ is the essence of the whole business” (Skodnick 10). Burke’s business was to change the world by changing how we see it.

Conclusion

Towards an Optical, Non-Discursive Burke

> We are emphasizing the fact that the ethical bent from which one approaches the universe is itself a part of the universe, and a very important part. Our calling has its roots in the *biological,* and our biological demands are clearly implicit in the universal texture. To live is to have a vocation, and to have a vocation is to have an ethics or scheme of values, and to have a scheme of values is to have a *point of view*, and to have a point of view is to have a prejudice or bias which will motivate and *color* our choice of means.
>
> (*Permanence and Change* 256-7, emphasis added)

Burke's reference to "Perspective by Incongruity" as the crux of *Permanence and Change* may seem at odds with his original intent for the book: the first two parts, orientation and disorientation, were meant to set the stage for reorientation, the last part. His method for reorientation, a task preceded by perspective by incongruity, was rooted in a new philosophical way of living that he termed "poetic orientation." George defines poetic orientation as a "restorative orientation" to replace the established ideologies inherent to his time (2). Burke's goal for *Permanence and Change* was to show how dominant orientations are formed (orientation), create a methodology to break apart the language and image connections inherent to our orientation (disorientation), and rebuild a new orientation that allows people to view the world in a new, poetic way (reorientation). Some could read Burke's vision of reorientation as utopian; he did, after all, refer to this new way of living as "the good life" (81). Yet rather than emphasizing utopian ideals in his subsequent works, Burke returns to one of the most practical

aspects of his book: perspective by incongruity, a methodological tool that might not promise societal solutions but that breaks apart old concepts, which enables individuals to envision the possibility of new concepts. Societal change in the 1930s may not have been feasible, but Burke did believe that biological and psychological change on the individual level was possible. Biology, after all, continually changes as cells replicate and evolve. Burke turns to the body to evaluate the extent to which physical and optical changes can lead to changes in our language associations and ways of making meaning.

Burke's emphasis on his methodological contribution, instead of his philosophical contribution, to rhetoric, suggests a few things about how image factors into *Permanence and Change,* how his engagement with visuality changes over the course of his career, and how future scholars can study Burke's engagement with image, visuality, and optical science. First, Burke was more interested in understanding and altering language associations in the brain than he was about establishing a new philosophy of living.[23] Second, the eye, visual imagery, and optical science continue to appear in his theories of language and rhetoric, which suggests a more non-discursive Burke than scholars usually portray. Third, introducing Burkean terms and concepts to visual rhetoric and image studies may offer scholars fertile research ground for years to come.

While Jordynn Jack's research connects Burke's terms to "embodied habits" and Richard Lanham indirectly connects Burke's poetry to image studies (35-36), my project extends such conversations not only into the realm of optical science but also into visual rhetorics as a whole. As a conclusion, I explore Burke's continual engagement with optical science in two of his later works, *Attitudes Toward History* (1937) and *Language as Symbolic Action* (1966). After

[23] Perhaps a better way of stating this is that Burke desired a new way of living. Yet all the while he understood that this new way of living could only come by altering our way of understanding language, of making meaning.

establishing the optical implications of Burke's later rhetorical theories, I examine the extent to which non-discursivity figures into Burke's conception of "image." Finally, I provide novel research questions evoked by this project concerning how optical science and modern neuroscience enables scholars to utilize Burke's rhetorical terms and theories in the digital age.

A Continuation of the Visual

The methodologies that Burke employs in *Permanence and Change* reappear throughout his later works; yet these reappearances include refined and more explicitly visual definitions of his methodologies. Indeed, while *Permanence and Change* may have been Burke's most "bodily book" ("Burke on Drugs" 19), it was certainly not his most optical book. In *Attitudes Towards History*, which Burke claimed served as the sequel to *Permanence and Change*, Burke engages with the concepts of orientation and perspective by incongruity, but he gives these terms more optical names and implications. For example, he redefines orientation as a "frame of acceptance," and he defines this new term as "the more or less organized system of meanings by which a thinking man gauges the historical situation and adopts a role with relation to it" (5). Similar to orientation, the frame of acceptance is a way of viewing and understanding the world; thus all individuals' "roles" must be considered in relation to their framing of the world. Yet Burke reveals how this method of framing limits individuals' understanding: "The materials incorporated within the frame are never broad enough to encompass all the necessary attitudes [in society]. Not all the significant cultural factors are given the importance that a *total vision of reality* would require" (40). Indeed, Burke not only directly connects the idea of framing with vision but he also reemphasizes that any method of seeing is "a way of not seeing" (*Permanence and Change* 49). Framing implies that some aspects of the environment are necessarily cut out so

that others may be included, as he states: "Class interests provide the cues that distort the interpretative frame, making its *apparent* totality function as an *actual* partiality. . . . *every* insight contains its own special kind of blindness" (40-1). Suggesting that our ideological worldview, like vision, *appears* to see everything, Burke posits that we rarely consider that which we do not see, a frightening mistake given that *every* image is a selection, thus every ideological worldview is partial.

In *Attitudes Toward History*, Burke continues to prove the inaccuracy of seeing, knowing, and understanding—the work he began in *Permanence and Change.* However, in this later work, Burke directly reveals his understanding of the visual sense:

> The eyes are the "remotest" of the senses. They lack the immediacy that goes with experiences of taste or contact. They have been called a protrusion of the brain.[24] We used to "grasp" ideas, but tend more and more to "see" them. . . . Vision compared with touch, has a quality of "alienation." And similarly, philosophic ideas (abstractions) have a quality of alienation. . . . Atop abstraction we erect further abstractions . . . They can define a complexity quickly and easily—and without them we could at best vaguely sense a particular complexity. But they may carry us far from the immediacies of the senses and of childhood—hence, the poet strives to repossess them. (*Attitudes Toward History* 211-13)

Here, Burke connects the brain's abstraction of sensory information into visual stimuli with the abstraction of mental images into concepts. This section of *Attitudes Toward History* does, indeed, build upon the ideas which Burke began formulating in *Permanence and Change*: "We must remember that the conceptual terms are valuable mainly for what they *exclude*, what is left

[24] In *The Wisdom of the Eye*, David Miller explains that the eyes detach from the brain in utero: "The eye starts out as part of the brain, and retains its connection to the brain throughout life" (104).

after *abstraction*. And though we usually think of abstraction as a very subtle process, from another point of view it may be considered a very blunt one" (57). That is, individuals are left believing that a semblance of a picture is "fact" if they do not evaluate the exclusion process of framing that picture. Abstraction is a way of framing, and as we frame, we perpetuate an ingrained way of knowing and living. Individuals can never become aware of the suppressed or hidden ideology beneath their ways of knowing until they wrench apart abstract concepts and identify what aspects of those concepts they have blindly accepted rather than evaluated. For this wrenching process, Burke insists, we need poets. Poets can repossess the aspects of our senses with which we have lost touch, the root of our abstraction that we have suppressed.

For Burke, the abstraction of image and the abstraction of concepts were similar processes: "One cannot long discuss imagery…without sliding into symbolism. The poet's images are organized with relation to one another by reason of their symbolic kinships. We shift from the image of an object to its symbolism as soon as we consider it" (*Attitudes Toward History* 281-82). From this, we understand that wrenching apart verbal constructs is the same process as wrenching apart images and vice versa. To change language associations, Burke suggested that we have to target mental images. Indeed, this message is consistent with his ideas of vision and optical science in *Permanence and Change*, but he continues to emphasize that language cannot be divorced from abstraction, and thus from image, well beyond the 1930s.

In 1945, Burke published *A Grammar of Motives* and continued to further redefine the extent to which image factored into the functioning of perspective by incongruity. Describing how "electricity" and many other scientific and mathematical ideas came to be defined, Burke explains: "The entire procedure resulted in a body of formulations beneath which lay a whole jumble of distinct imagery, more bewildering than any mystic's oxymoron or any Surrealist's

assemblage of forms from different orders of experience. That is, in effect, a way of carrying out the dialectican's ideal: *the use of imagery to transcend imagery* (*A Grammar of Motives* 429, emphasis added). In a subtle redefining of perspective by incongruity, Burke emphasizes that the only way to transcend or reorient imagery is through imagery itself. In other words, a reorientation of words must also be a reorientation of images.

Throughout his career, Burke also continually returns to the fallibility of image and, similarly, our understanding of the world through language. In 1966, Burke would establish one of his most famous terms, "terministic screens," in *Language as Symbolic Action*. But in 1945 in *A Grammar of Motives*, he begins to theorize what would become the terministic screen:

> Men seek vocabularies that will be faithful r*eflections* of reality. To this end, they must develop vocabularies that are *selections* of reality. And any selection of reality must, in certain circumstances, function as a *deflection* of reality. Insofar as the vocabulary meets the needs of reflection, we can say that it has the necessary *scope*. In its selectivity, it is a reduction. (59, emphasis added in fourth line)

This passage echoes his explanation of the partiality of framing in *Permanence and Change* and *Attitudes Toward History.* Further, in *Language as Symbolic Action,* Burke not only defines terministic screens with the language he uses in *A Grammar of Motives*—reflection, selection, and deflection of reality—but he also ties this selective process to the framing, focusing, and abstracting of photography:

> "Terministic screens" direct the *at*tention. . . . When I speak of [them], I have particularly in mind some photographs I once saw. They were *different* photographs of the *same* objects, the difference being that they were made with

> different color filters. Here something so "factual" as a photograph revealed notable distinctions in texture, and even in form . . .
>
> Similarly, a man has a dream. He reports his dream to [three different types of psychologists]. In each case, we might say, the "same" dream will be subjected to a different color filter, with corresponding differences in the nature of the event as perceived, recorded, and interpreted. (45-46)

Like perspective by incongruity, the way that our worldview is constructed derives from contrast and the nature of our attention—we pay more attention to difference and we fail to notice the subtle nuances of change in our environment. We understand the dangerous implications of this process when we consider how politicians subtly persuade audiences: their rhetoric fools deceptively and without individuals' notice. Burke's rhetorical theories stand in contrast to such deception; he seeks to contrast incongruous with established mental images to bring motives into focus, to show that seeing things from many viewpoints really does change how we think. Burke further exposes how the brain promotes efficiency, which translates to narrow-mindedness in terms of our concepts and ideologies: accepting ideology is more efficient than thinking critically about ideology. For Burke, in order to change the brain, we have to fool the brain, but we must fool it using tools it already knows. Since understanding language is an internal process, Burke suggests that we alter our understanding of language with internal tools.

The manipulation of mental images (through perspective by incongruity) is an internal, neural tool. Indeed, image is not only a material thing for Burke; instead, his conception of image rests with mental concepts in the brain. While he understands and appreciates the importance of visual art, this is what he describes when writing about imagery. With only a few exceptions however, scholars have generally considered Burke a "word" man—a theorist

interested in the importance of naming in knowledge and meaning making. Yet as this project has shown, Burke's conception of the discursive "word" derives from its relation to and interaction with nondiscursive image. Indeed, any evaluation of Burke's theories of language and discursivity are never far from a passage in which he considers image or abstraction: the nondiscursive way that the brain makes meaning. Essentially, we ascribe discursive words to these nondiscursive images, but the word's ability to capture the entirety of the "image" is incomplete. Burke's play with image through perspective by incongruity—juxtaposing incongruous words and thus images—gives a more complete picture of experience. Notice, however, that as Burke increasingly engages with image and non-discursivity, his naming of terms (for example, "terministic screen") calls more attention to discursivity, a disconnect that begs many questions.

Future Research

As previously mentioned, Lanham and other scholars[25] have loosely connected Burke and a few of his terms to image studies. Similarly, Gregory Clark (*Civic Jazz)* and Sonia Foss ("Rhetoric and the Visual Image: A Resource Unit") have mentioned Burke's relationship with nondiscursive ways of making meaning. Yet my project allows scholars to bridge the gap between these projects and ask a new question: to what extent did Burke define "image" nondiscursively? Modern scholars[26] understand that mental images are composed of more than visual stimuli and include all aspects of the senses—sound, touch, smell, etc. Did Burke, like his

[25] See David Blakesley's *The Elements of Dramatism* and David J. Tietge's *Rational Rhetoric.*

[26] For example, Blakesley states, "An image is a subjective phenomenon. . . . [and] is the end result of an act of perception, which itself is more than just looking. Perception involves what we believe and know at least as much as it does the physiological process of seeing" (109).

contemporary Susanne Langer, define mental images in such broad terms, or was he dealing specifically with visual stimuli and the abstraction process of the brain from his studies in optical science?[27]

Recent scholarship in neurorhetorics reveals a promising start to answering such questions. In her definition of the term "rhetorical vision," which explains how words and language facilitate and interact with vision directly, Debra Hawhee references Richard Moran who posited that Burke deeply understood Aristotle's ideal writing style of "setting before the eyes," a feat that is more "imagistic" than "discursive" (155). Hawhee chronicles Moran's quotation from Burke's *A Grammar of Motives*, which describes how abstract terms place images "before our very eyes" (86). Hawhee further explains that, according to Moran, presenting the audience with a complexity of images allows them to analyze a problem for themselves rather than simply believing what the speaker tells them. Considering Moran's analysis, Hawhee posits: "The production of rhetorical vision…occurs on the part of the audience as a result of the 'bundle' of ideas contained in the image. What is more, …if each image, to use Burke's words, 'contains a whole bundle of principles,' then what is being placed before the audience is not a single, discrete image or idea but a dense and simultaneous proliferation of both images and ideas" (155). Burke not only theorizes how to write and create such images, but he also creates methodologies (for instance, perspective by incongruity) that produce these images in the minds of the audience. Applying Hawhee's rhetorical vision to Burke's theories and methodologies might change how we interpret the role of the audience in language reception and production. To begin, we realize that Burke's rhetorical agenda was not only to create better speakers or writers, but *also* to create better listeners and readers.

[27] Further, if optical science and biology did help Burke to understand how language processes occur in the brain, why does the body increasingly disappear from his work after *Permanence and Change*?

Scholars may also apply the methodology of this project—exploring the extent to which scientific research altered a rhetorician's understanding of language—to reevaluate how other rhetoricians have arrived at their understandings of language. Uncovering the scientific studies to which rhetoricians adhere will shed light on their understanding of abstraction, cognition, and image. Knowing that image and optical science changed the way that Burke understood language should prompt scholars to analyze how Burke desired the audience to understand, utilize, and interact with image. Further still, evaluating Burke's rhetorical terms and theories according to the methodologies in visual and neurorhetorics, namely neuroscientific research, allows scholars to analyze the effect of tools such as perspective by incongruity, determine whether they are effective, and inform how they can be used in the future. Still more broadly, perhaps neuroscientific tools will allow scholars to study mental images themselves and how they differ in our imagisitic world than they did from Shakespearian, or even Burkean, times.

No doubt that mental images *are* changing, since our understanding of language is changing with the rapid influx and evolution of technological tools. The alarming thing is that rhetoricians have largely left mental images out of research and pedagogy. We ask our students to evaluate material images, but we fail to bring mental images into such discussions. Alas, as Burke prescribed, we are missing the root of meaning making. If we fail to understand how the brain works, how images work, how language works, how all cognition is a series of "abstractions atop abstractions" (*Attitudes Toward History* 291), then we become victims to our own biological and neurological makeup. If we do not fool the brain, then the brain will fool us. To fool the brain, we must fool the mind's eye, change our vision, and rediscover the essence of our blindness.

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VITA

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ABSTRACT

BURKE AND OPTICS:
RE-ENVISIONING RHETORICAL THEORY THROUGH AN OPTICAL LENS

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This thesis reevaluates Burke's most visual terms in *Permanence and Change*, orientation and perspective by incongruity, and suggests that scholars cannot truly understand the nuances of these terms without understanding their relation to optical science. In *Permanence and Change*, Burke implies that the brain can only relay perceptual information, whether through words or images, fallibly. Thus, Burke targets mental images in the hopes that wrenching apart our images will wrench apart our language associations, and subsequently our worldview. This thesis traces Burke's engagement with Gestalt theory and optical science in order to properly evaluate the visual, optical, and neurobiological implications of the major terms in *Permanence and Change*. Though recent scholarship has begun to read Burke biologically, this thesis proposes that scholars must also read him ophthalmologically.