

# INTRODUCTION

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In 2013, a search through the Conference on College Composition and Communication program for the term “cognition” yielded few results. In fact, the term “cognition” has not appeared as a category for submissions to Cs in several years. As Carol Berkenkotter and Thomas Huckin’s (1995) analysis of CCCC program topics has shown, the current topics of interest are defined *for* participants by conference leadership and their selected theme and, to be fair, may not encompass *all* interests of *all* members of the field. Yet this search (and the omission of the term *cognition* from any of the CFP language) gave the perception that few, if any, attendees of that year’s CCCC were sharing ideas, theories, or research related to writing and cognition. Of course, this is false: there has been and continues to be significant interest in the mind, how we learn, how we process information, and how this all relates to writing. Rather, there has been a decline in the use of the term *cognition* to describe our scholarship in writing studies because, as Ellen Carillo, Dylan Dryer and David Russell show in this collection, the word is fraught with contention.

Although writing research grew in large part out of the U.S. history and culture of first-year composition courses in higher education, the international community of writing research scholars continues to embrace *cognition*, using cognitive principles to inform writing research in multiple disciplines. Yet, studies building upon the history of writing and cognition research within composition studies have rapidly decreased in the US since the 1980s. An aggregation of data collected by Jonathan Goodwin (2012) indicates a steady decline in published scholarship on cognition and writing. Goodwin’s data were derived from an algorithm that compiled all references in the digital library JSTOR to the following keywords: *composing strategies, invention research, heuristic, discovery, revision, discourse researchers, rhetorical writer, Flower, process, Lee, stages, and explore*. The data show a steady increase in scholarship on these topics, which peaked

in the early 1980s only to decline through the 1990s and the early aughts. This trajectory aligns with a familiar narrative in composition history: the rise and fall of cognitive research on writing. (To frame this volume, Carillo offers a rich and detailed account of this narrative in her chapter).

In response to what appeared to be a decline in scholarship in this area, we organized a Special Interest Group on Cognition and Writing at the 2014 CCCC in Indianapolis. Our first featured speaker was John R. Hayes, the well-known cognitive psychologist, who shared his research on the supposed death of cognition and writing research. As he discusses further in the foreword to this collection, Hayes complicated the rise and fall myth of cognitive studies by examining citations of his well-known article he co-authored with Linda Flower in 1981. Citations steadily increased in published journal articles over the past 25 years—with the most citations of his work since its publication appearing in 2012. However, as he shows, while writing research informed by cognitive science has increased steadily internationally, and domestically in other disciplines, such published research has fizzled out in U.S. English departments where the majority of compositionists are employed.

Hayes' presentation in 2014 spurred a lively discussion among SIG members. The Special Interest Group identified several potential reasons for the decline in cognitive research within English departments. Cognitive research frequently hinges upon interdisciplinary collaboration. Advances in cognitive research and new technologies for research may be best understood by experts in fields such as in neuroscience, psychology, and special education, but interdisciplinary collaboration is still infrequent in the field where tenure decisions are often based on “publish or perish” expectations; co-authored work may not receive the same value as individual scholarship. With teaching, service, and other administrative responsibilities, it is often difficult to arrange interdisciplinary research projects logistically. However, interdisciplinary projects may mean access to new technology such as eye-tracking software, fMRI imaging, statistical analysis software, and other useful empirical research tools to expand our understanding of the mind at work while writing.

Despite the recent decline of published articles citing the work of Flower and Hayes, it is clear that there is significant interest and ongoing research in cognition and writing by compositionists in English departments that adopt cognitive principles. We look to the national consensus document, the *Framework for Success in Postsecondary Writing* (2011), as one such example of this interest. A joint venture between the Council of Writing Program Administrators, the National Council of Teachers of English, and the National Writing Project, the *Framework* operates from several key assumptions, according to Peggy O'Neill, Linda Adler-Kassner, Cathy Fleischer, and Anne-Marie Hall (2012), who worked on

the *Framework* and authored an article on their work for a symposium published in *College English*. The first assumption was that writing instruction is a shared enterprise between K-16 educators; the second is that college readiness is also a shared enterprise between secondary and postsecondary teachers; and finally, they believed the *Framework* should be guided by the CWPA Outcomes Statement for First-Year Composition, a national consensus document offering clear direction for thousands upon thousands of compulsory postsecondary writing classes offered in the US.

As Nicholas Behm, Sherry Rankins-Robertson, and Duane Roen (2017) note in the “Introduction” to their recent collection on the *Framework*, the document represents a thread in a national discussion about what writing teachers can do to help students be more successful. Although the Framework reflects one form of consensus (as defined by the CWPA/NCTE/NWP task force that crafted the document), it also is a response to other views of what constitutes success in the writing classroom. The *Framework* contributes to the conversation, but it will not end debates about which instructional approaches will help students write more effectively. Those debates will rage on long after all readers of this collection have ended their careers.

Unique to the *Framework*, and where this edited collection enters into the conversation, is the addition of eight habits of mind believed essential for college readiness and college writing success. The executive summary of the *Framework* offers the HOM as “ways of approaching learning that are both intellectual and practical and will support students’ success in a variety of fields and disciplines” (Behm, Rankins-Robertson, & Roen, 2017, p. 1). The eight are curiosity, openness, engagement, creativity, persistence, responsibility, flexibility, and metacognition. Particularly helpful for the wide readership of the *Framework*, immediately following the introduction of the HOM, the executive summary leads into briefly capturing how teacher can foster the HOM through “writing, reading, and critical analysis” (Behm, Rankins-Robertson, & Roen, 2017, p. 1). Thus with the emphasis on developing the HOM in conjunction with, for example, rhetorical knowledge, the *Framework* in general and the HOM in specific are one entry into these important conversations on cognition and writing.

Kathleen Blake Yancey, Liane Roberston, and Kara Taczak’s (2014) award-winning *Writing Across Contexts: Transfer, Composition, and Sites of Writing* offers an additional entry into the conversations animating this collection. Yancey, Robertson, and Taczak build on the HOM by highlighting the role of the eighth HOM, metacognition, in facilitating writing-related transfer and introducing students to threshold concepts, which, in brief, are central definitive concepts that mark a discipline. Finally, Adler-Kassner and Elizabeth Wardle’s (2015) edited collection *What We Know: Threshold Concepts of Writing Studies* is

a crowd-sourced and expansive, but at the same time focused, offering of five threshold concepts. The fifth is “Writing Is (Also Always) a Cognitive Activity” and Dylan Dryer, Charles Bazerman, Howard Tinberg, Chris Anson, and Kara Taczak explicate this concept with their contributions. Three of these voices continue their thinking in chapters for this collection.

In the wake of this scholarship and many more individual articles populating our journals and conversations driving our listservs, our Special Interest Group of eighty-two members increases membership each year. The goal of *Contemporary Perspectives on Cognition and Writing*, then, is to bridge the publishing gap between the work of the 1980s and the diverse contemporary research by U.S.-based compositionists.

All of the chapters included in this collection are authored or co-authored by faculty from English departments and/or independent writing programs, and represent a variety of perspectives such as using the history of cognitive research in composition to inform our inquiry (Bazerman; Carillo; and Dryer & Russell); theory-building that bridges neuroscience and rhetoric (Remley); neuroplasticity, genre, and identity (Clark); the neuroscience of reading (Horning); and using the HOM to facilitate writing-related transfer (Corbett; Khost; Meade; and Reid). We believe this collection will appeal to scholars interested in a diverse range of research methods and methodologies, as well as composition pedagogy grounded in cognitive principles. This collection is appropriate for advanced undergraduate or graduate courses and it is particularly suited to an introduction to composition studies course. It is a useful supplement to the popular anthologies *Cross-Talk in Comp Theory*, edited by Victor Villanueva and Kristin Arola (2011) and the Susan Miller (2009) edited *Norton Anthology of Composition* with our focus on the transfer of writing knowledge and the habits of mind outlined in the *Framework* (2011).

## DEFINING TERMS

Given the range of research interests represented in this book, as well as the diverse perspectives shared through the Cognition and Writing SIG, we found it restrictive to impose a narrow definition of the term *cognition* on individual scholars. Each chapter in this collection explores the intersection of research on cognition and writing through a contemporary lens, drawing upon shared scholarship in the field. Rather than force one particular view, we asked individual authors to define the term within the context of their own work, thus creating a more collaborative and inclusive community of cognition and writing scholars. As a result, our understanding of the term *cognition* is developed throughout the collection and represents several different research interests. In this section, we

explore some of those definitions by exploring how scholars have used terms in the past. We hope this brief survey of the literature will serve as a foundation for the chapters that follow.

## COGNITION AND METACOGNITION

As Peter Khost notes in this collection, “*cognition* can be a mystifying term. At times the word just seems to mean *thinking*; at other times it entails emotions, non-emotional affect . . . and even assimilated social influences. So this word that denotes the thinking of a single person can also paradoxically connote the opposite of thinking and involvement of other people.” Khost points to the principles undergirding discussions of cognition the field: is it individual or social? In common usage, *cognition* is “the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses” (“Cognition”). The word itself derives from the Latin word *cognosco-con* (“with”) and *gnōscō* (“know”). The Latin form comes from the Greek verb γι(γ)νώσκω *gi(g)nōsko* (“I know, I perceive”). The noun form is γνώσις *gnōsis* (“knowledge”), which means “to conceptualize” or to recognize” (Franchi & Bianchini, 2011, p. xiv). This definition—to perceive, conceptualize, or recognize—Khost notes, appears to mean *thinking* in broad terms.

Likewise, the term *metacognition* is often broadly defined as *thinking about thinking*. The *Framework* defines metacognition as “the ability to reflect on one’s thinking as well as on the individual and cultural processes and systems used to structure knowledge” (Behm, Rankins-Robertson, & Roen, 2017, p. 5). In this collection, Carillo shows the complexity of metacognition—distinguishing it from cognition. She borrows Howard Tinberg’s distinction between cognition and metacognition:

cognition refers to the acquisition and application of knowledge through complex mental processes . . . but the effective accomplishment of writing tasks over time requires even more. It calls upon metacognition, or the ability to perceive the very steps by which success occurs and to articulate the various qualities and components that contribute in significant ways to the production of successful writing.

Both Carillo’s ideas and Tinberg’s definitions align with the definition of metacognition offered in the *Framework*, which is “the ability to reflect on one’s own thinking as well as on the individual and cultural processes used to structure knowledge” (Behm, Rankins-Robertson, & Roen, 2017, p. 1) and with the work of Dianna Winslow and Phil Shaw as well as that of Taczak and Robertson

in this collection. Dryer and Russell, in this collection, integrate Bazerman's social perspective by describing research on social metacognition that "examines people's 'complex determinations about the reliability of our own thoughts, feelings, and beliefs as well as attributions about the thoughts, feelings, and beliefs of others around us'" (Jost et al., 1998, p. 137). Here, it becomes evident that contemporary perspectives on cognition and metacognition include a decidedly social perspective.

Lev Vygotsky (1986) uses the term *consciousness* rather than *cognition*. In reflecting on work of Jean Piaget (1974) and Edouard Claparede (1974), Vygotsky comments on the relationship among action, thought, and language: "To become conscious of a mental operation means to transfer it from the plane of action to that of language, i.e., to recreate it in the imagination so that it can be expressed in words" (1986, pp. 163-164). Vygotsky clarifies his use of the term by noting, "we want clarify the term *consciousness* as we use it in speaking of nonconscious functions becoming conscious. . . . This model implies that the child's thought is not fully conscious; it contains conscious as well as unconscious elements" (1986, p. 169). He further notes that "becoming conscious of our operations and viewing each as a process of a certain *kind* [emphasis in original]—such as remembering or imagining—leads to their mastery" (1986, p. 171). Vygotsky also observes that "Written speech is considerably more conscious, and it is produced more deliberately than oral speech" (1986, p. 182). Additionally, notes Vygotsky, "Signs of writing and methods of their use are acquired consciously. Writing, in its turn, enhances the intellectuality of the child's actions" (1986, p. 183). Vygotsky concludes that "the essential difference between written and oral speech reflects the difference between two types of activity, one of which is spontaneous, involuntary, and nonconscious, while the other is abstract, voluntary, and conscious" (1986, p. 183).

## SOCIAL AND SITUATED COGNITION

In social cognitive theory (Bandura, 1985) the three components of influence (individual, behavior, and environment) are equally valued though exert different degrees of influence dependent on context. Thus, a social cognitive theory is also situated (see below). According to Albert Bandura, in the social cognitive view people are neither driven by inner forces nor automatically shaped and controlled by external stimuli. Rather, human functioning is explained in terms of a model of triadic reciprocity in which behavior, cognitive and other personal factors, and environmental events all operate as interacting determinants of each other. The nature of persons is defined within this perspective in terms of a number of basic capabilities (Bandura, 1985, p. 18).

Unlike one-sided determinism (e.g., behavior is determined by environment) or one-sided interactionism (persons and situations are treated as independent entities), social cognitive theory “favors a conception of interaction based on triadic reciprocity. In this model of reciprocal determinism . . . behavior, cognitive and other personal factors, and environmental influences all operate interactively as determinants of each other. In this triadic reciprocal determinism, the term reciprocal refers to the mutual action between causal factors” (p. 23), what Bandura defines as “triadic reciprocity” (Bandura, 1985, p. 23). For Bandura, people learn by observing others’ behavior, attitudes, and outcomes of those behaviors. As outlined above, learning is explained in terms of a continuous reciprocal interaction between cognitive, behavioral, and environmental factors. The conditions for effective modeling include attention, retention, reproduction, and motivation.

Early in their introduction to their edited collection *Situated Cognition: Social, Semiotic, and Psychological Perspectives*, David Kirshner and James Whitson (1997) outline the exigence driving the work of social cognitionists: “We are engaged not as individuals, but as *socii*, and we are engaged in the worlds of each other and of ourselves and of things that surround us in concrete social and material situations: worlds that necessarily include us and are in formation with us as we form ourselves in part through cognitive/transformational engagement with each other, our surroundings, ourselves” (p. 2). Pulling strongly from Soviet sociohistoric theories of Vygotsky and Alexsei Leont’ev, social cognition shifts the focus of the unit of analysis from the individual to sociocultural and sociohistoric conditions in which cognitive activities, such as writing, are embedded. Descartes’ long valorized singular *cogito* no longer holds up under the broad weight of understanding how the self-interactions with a multitude of external influencers during activity. As Mike Rose (2004) offers in his account of workplace literacies in *Mind at Work*, “individuals [act] in concert with each other and with tools, symbols, and conventions delivered by the culture” (p. 218).

Situated cognition is the larger umbrella term for theories which acknowledge how external objects share the work of cognitive activity. Under this umbrella one finds externalist views of cognition such as distributed cognition and extended cognition. According to Kristopher M. Lotier (2016), externalism posits that “no cognitive action can occur without the contribution of human or nonhuman others, including language and various technological artifacts” (p. 362) “thus blur[ring] the distinctions between body and mind, mind and world” (p. 366). For example, Edwin Hutchins (1995) details the highly complex process of docking a ship and shows this cognitive activity is not solely located in the head of the pilot but distributed across various states of representational and external media: a nautical slide rule, maps, landmarks. Andy Clark and David

Chambers (1998), working more from the extended cognition subfield of situated cognition, offer an example of an Alzheimer's patient they name Otto, who, in an attempt to navigate New York City, writes down directions on a notepad thereby offloading internal cognitive data to an external surface for later retrieval. They open their article with a pithy, powerful question: "Where does the mind stop, and the rest of the world begin?" (Clark & Chambers, 1998, p. 7).

A strong thread woven into the fabric of social cognition is schooling. Indeed, the Kirshner and Whitson (1997) collection grew out of an American Educational Research Association symposium. Social cognitionists offer a commitment to learning, generally, curricular learning, specifically. Jean Lave and Etienne Wenger (1991) explored situated cognition through, what they term, *legitimate peripheral participation*, a model of apprenticeship. Lave and Wenger borrow from Vygotsky's zone of proximal development to dispute common misinterpretations of the internalization of learning as unproblematic. They summarize a theory of social practice as "the relational interdependency of agent and world, activity, meaning, cognition, learning and knowing" (Lave & Wenger, 1991, p. 50) and "emphasize the inherently socially negotiated character of meaning and the interested, concerned character of the thought and action of persons-in activity" (p. 50). The words "relational" and "negotiated" suggest that knowledge is in flux rather than static—changing over time. Lave and Wenger hope that they have expanded our notion of learning to include "the interconnections of activity and activity systems, and of activity systems and communities, culture, and political economy" (1991, p. 121). They claim that in transforming terms such as *person*, *situated learning activity*, *knowing*, and *social world*, we can understand the world, and learning, as experienced.

Echoing Lave and Wenger, Barbara Rogoff (1990) argues "children's cognitive development is an apprenticeship—it occurs through guided participation in social activity with companions who support and stretch children's understanding of and skill in using the tools of culture" (p. vii) Rogoff further develops her definition in "Observing sociocultural activity on three planes: Participatory appropriation, guided participation, and apprenticeship" emphasizing that "the individual and the environment are often considered separate entities when, in fact, they are "being mutually defined and interdependent in ways that preclude their separation as units or elements" (1990, p. 139). Focusing specifically on an individual's literate development, Paul Prior (1998) draws heavily from situated cognition and sociohistoric theory to map the writing development of graduate students in sociology.

Returning back to this collection, Gwen Gorzelsky, Carol Hayes, Joseph Paszek, Ed Jones, and Dana Lynn Driscoll define situated cognition as "a theoretical framework positing that cognition is fundamentally shaped by both bodi-



ly experience (as distinct from strictly mental experience) and by emotional, socio-cultural, physical, and other environmental factors” (p. 140) and, drawing from Bandura, argue “situated cognition theorists have defined knowledge as dynamically constructed, remembered, and reinterpreted in social contexts. Through interactions among brain, body, and environment, individuals actively build knowledge, rather than passively receiving it” (p. 140).

No matter the discipline from which one approaches social cognition, the focus remains the same, which, returning to Kirshner and Whitson (1997), asks us to remember that “we are engaged in the worlds of each other and of ourselves and of things that surround us in concrete social and material situations” (p. 2).

## EMBODIED COGNITION

In her pivotal book *Wealth of Reality: An Ecology of Composition*, Margaret Syverson (1999) calls upon research on complex systems and ecologies to ask a question still resonating with composition scholars almost two decades later: “can the concepts currently emerging in diverse fields on the nature of complex systems provide us with a new understanding of composing as an ecological system” (p. 5). At the sake of diluting these fecund concepts for the purposes of brevity, complex systems and ecologies return us to the ideas offered by social cognitionists, namely that cognitive activities, like writing, occur not just within the individual mind and body but within a larger network of culture, external animate and inanimate objects, and spatial and temporal influencers. For Syverson’s purposes, an ecology is a “kind of meta-complex system composed of interrelated and interdependent complex systems and their environmental structures and processes” (1999, p. 5). Further, and here is where we get to embodied cognition, she holds an ecological system of composition has four attributes, one of which is embodiment. “Writers, readers, and texts have physical bodies,” Syverson posits, “and consequently not only the content but the process of their interaction is dependent on, and reflective of, physical experience” (1999, p. 12). If situated cognition illuminates the role of the external during cognitive activity, embodied cognition illuminates the role of the muscles, the heartbeat, the inhalations, and exhalations during cognitive activity.

Embodied cognition seeks to unravel the pernicious mind/body dualism that has woven its way into the fabric of western education. In a sense, embodied cognition is a return to Hellenic education just as Isocrates, the progenitor of the liberal arts curriculum, offered a pedagogy pairing training in gymnastics with philosophy as the two were “twin arts” (Syverson, 1999, p. 289). As Debra Hawhee (2004) has persuasively illustrated in *Bodily Arts*, ancient western rhetorics were refined physically and theoretically through rhetorical performances

and wrestling contests. Hawhee offers us the concept of the “sophist-athlete,” and, indeed, we believe Gorgias wrote a handbook on rhetoric and a handbook on wrestling as the two are chiefly concerned with reading and countering an opponent’s moves. Historian of education H. I. Marrou (1982) details how the Romans, after conquering the Greeks, adopting much of the Greek education system but did away with athletics. And we feel these repercussions today, as physical education is often skipped over in favor of more scholastic activities. Embodied cognition reminds us of the role of the body during writing, a point Kristie Fleckenstein (1999) succinctly makes when she asserts, “We are writing bodies” (p. 297). In the wake of Fleckenstein’s argument, composition studies pulled from interdisciplinary research to begin crafting bodily pedagogies and theories for how our skin and bones, breath and heartbeat shape our written words. Abby Knoblauch (2012) offers a helpful categorization of this research, breaking it into three camps: embodied language, embodied knowledge, and embodied rhetoric. In this collection, both Steven Corbett and Bonnie Vidrine-Isabelle engage with this term.

## COLLECTION OVERVIEW

*Contemporary Perspectives on Cognition and Writing* unfolds in five related sections. In the first, we offer historical context for studying the intersection of cognition and writing and chart the rising interest in cognition and writing in the 1980s, most notably with the work of Linda Flower and John R. Hayes. Taken together these chapters ask: What cognitive principles and theories influence our current teaching, research, and theory-building? Charles Bazerman, in our lead chapter, offers a rich, personal reflection on how he grew to understand how psychological issues of writing operated within his empirical and theoretical projects. Like Bazerman, Ellen Carillo sketches a broad historical picture of composition studies with attention to relationship between composition and cognitive studies. Carillo uses the current interest in metacognition within composition studies to anchor her survey and argues studies of individual cognition will enrich current discussions of transfer. Dylan Dryer and David Russell anchor their survey of the field to current interest in reflection. Dryer and Russell investigate how research in phenomenology and neuro-phenomenology speaks to notions of reflection, and, ultimately, how reconceiving reflection phenomenologically carries implications for writing teachers and programs as it may provide a way to operationalize national consensus documents like the WPA Outcomes Statement for First-Year Composition (OS). The practical implications Dryer and Russell sketch foreshadow the final two sections of this collection, which bring to bear the theory-building of the opening sections on the classroom and

national consensus documents, such as the OS and the *Framework for Success in Postsecondary Writing*.

The second section reconsiders our approaches to student learning in light of recent studies and neuroscience. Alice Horning opens this section with a discussion on the psycholinguistic features of the reading process and how adhering to these features suggests a redefinition of academic critical literacy. Bonnie Vidrine-Isbell draws from her experience working in the University of Washington's Language and Rhetoric program and the Institute for Learning Brain Sciences to articulate how primary language acquisition studies aid how we understand secondary language acquisition. Gwen Gorzelsky, Carol Hayes, Joseph Paszek, Ed Jones, and Dana Lynn Driscoll call our attention to educational data mining and learning analytics research. Despite justifiable concerns with adaptive learning technologies, the co-authors specifically illustrate three adaptive learning prototypes they are developing to teach genre, source use, and metacognitive knowledge. They ask readers to view these technologies as a means for helping students develop structured writing practices and cognitive habits crucial for writing development and intellectual growth.

Our third section contains three chapters on neuroscientific discoveries and applicability and asks how advances in neuroscience research impact our understanding of what writing is and how it works. Dirk Remley synthesizes work in neuroscience, narrative, and multimodality. He calls our attention to multimodal commercial messages—such as the marketing materials of a law firm in Cleveland, Ohio—and shows how neurobiological dynamics of the mirror neurons and reward neurons enhance development of these messages. Jen Talbot describes how the neurological concepts of plasticity and mirroring demonstrate the co-constitutive dimension of cognition and affect. She ends by arguing affective neuroscience connects with writing pedagogies, particularly postprocess pedagogy. Irene Clark ends this section by also calling upon recent research on neuroplasticity. Clark urges us to see this recent research as complicated, problematizing the interconnection between genre and identity.

Curricular writing spaces and writing instruction figure more prominently in our fourth and fifth section. The jointly authored *Framework for Success in Postsecondary Writing* (2011) forwards explicit awareness of the role of cognition during literate development. In this national consensus document, students are given eight habits of mind for success and writing teachers are given ways to facilitate a student's growth in these habits of mind. Our remaining seven chapters draw—sometimes directly, sometimes indirectly—from the *Framework* and provide productive conversations on what these sometimes abstract and seemingly unteachable habits look like in a curricular writing space. Additionally, many of the remaining chapters ground their discussion in writing-related transfer,

as recent developments in transfer research (e.g., Nowacek, 2011; Yancey, Robertson, & Taczak, 2014) call attention to the importance of metacognition, a habit of mind in the *Framework*. Dianna Winslow and Phil Shaw open our fourth section by introducing readers to the efficacy of a linked course—one in FYC and one in STEM. This linked course served first-generation students and deaf and hard-of-hearing students at Rochester Institute of Technology. Using a mixed-method research design, Winslow and Shaw report on how this linked course introduced students to the importance of metacognition and how metacognitive principles positioned the students well for future writing and learning contexts. Kara Taczak and Liane Robertson continue their award-winning research on transfer by highlighting the importance of metacognition. They delineate between metacognition and reflection—although both are vital components of successful writing transfer—and urge readers to see cognition, metacognition, and reflection as separate but interrelated components of literate development. Marcus Meade expands our conversation on how explicit focus on cognition aids in transfer by turning to Guy Debord’s well-known concept of the spectacle. Meade specifically holds that writing classes often overvalue that which is observable and evaluable; therefore, writing classes focus on more observable foci of knowledge and practice and elide the habits of mind. Steven Corbett opens his chapter with a scene from the 1982 sci-fi film *Blade Runner* as a way to offer an important question: are writing instructors applying the habits of mind to their writing lives? Corbett then sketches an argument grounded in theory and lived experience that speaks to how self-analysis is the initial step of a transfer-friendly pedagogical praxis.

In our final section, Peter Khost undertakes of the first empirical studies of the habits of mind the context of the FYC classroom. Specifically, Khost focuses on metacognition, expressed through students’ self-perceptions of their habits of mind. Grounding his research design in theory on self-efficacy, Khost’s data show that focusing students’ metacognition on the habits of mind is likely to increase their self-efficacy as academic writers. E. Shelley Reid contributes to important work on the cognitive/affective balance by representing student voices about disposition problems, which hinder writing. Reid labels these dispositions problems as “soft skills,” charts them in the writing of over 70 students, and concludes by offering how writing instructors can link soft skills to more concrete and commonly addressed writing challenges. Kathleen Blake Yancey offers our final chapter in this collection. She continues her award-winning work with Liane Robertson and Kara Taczak by again drawing from *How People Learn* and returning to an emphasis on prior knowledge, an emphasis which formed a large portion of Yancey, Robertson, and Taczak’s *Writing Across Contexts*. Yancey reports on case studies data of students drawing on prior knowledge when com-

posing, particularly reporting on the role of the prior in digitally multimodal composing processes. These case studies are student-focused and led by student voice.

We then offer an afterword by Linda Flower. This afterword is only fitting in that John R. Hayes, Flower's long-running research partner, opens our collection and Flower closes it. As composition studies critiqued and then moved away from their cognitive processes model, Flower productively absorbed the critiques and continued her research into writing as a social-cognitive process. Through social inquiry driven by empirical research, Flower offered thoughtful prose and findings that spoke to the social mind in context and the perennial contingent knowing versus certainty debate—a debate driving much of this collection. Here we think specifically of three of her single-authored or co-authored books: *Reading-to-Write: Exploring Cognitive and Social Process* (1990), *The Construction of Negotiated Meaning: A Social Cognitive Theory of Writing* (1994), and *Learning to Rival: A Literate Practice for Intercultural Inquiry* (2000).

We situate Flower's contribution to this collection as an afterword and select this noun intentionally. Flower does not offer a conclusion or final utterance because our collective work on cognition and writing is ever ongoing. What we offer in this collection is a historical marker of where we were and where we might go. We also offer a classroom map for navigating the multifaceted challenges with teaching writing and what our current research and best practices tell us about how to work with writers. The scholars in this collection reach across disciplines and form interdisciplinary bonds—not borders—to help us envision better ways to work with writers and writing. In this collection, we join with the 26 scholars representing the 19 contributions to this collection. We join with these voices—and the many others represented in the words on the page—in seeking out the promise and possibility of contemporary perspectives on cognition and writing.

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