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Do We Need More Productive Theorizing? A Commentary

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ABSTRACT

In this commentary, we argue that literacy research would be more productive if researchers had a clearer, more nuanced understanding of theory. Specifically, we argue that theory in a practice-oriented field is most fundamentally productive when it provides instrumental guidance *for* literacy beyond academic understanding *about* literacy. Premises for that argument are presented, as well as how productivity connects to an instrumental view of theory within the philosophy of science. We provide examples from authoritative sources and relevant studies suggesting that conceptions and uses of theory in literacy research are ambiguous, diffuse, and incoherent. We argue that productivity could be a unifying construct to ameliorate those limitations. To stimulate discussion about theory, we propose several ways that theorizing might be more productive. Those proposals comprise a critique of theorizing in the field and illustrate how more productive theorizing could close the gap between research and practice. Finally, we discuss how our proposals might be implemented in the field's research.

It is one of the shibboleths of educational research that theory...[is] valuable, if not essential. But if the morphology of theory is inconstant...its chameleon-like nature will allow it to escape serious scrutiny. (Thomas, 1997, p. 83)

Doctoral students in the field of education, who are typically former educators, discover early in their studies that embracing theory is a hallmark of their entry into academia. Labaree (2003)

argued that a movement from a practical to an analytically theoretical orientation is the fundamental challenge of preparing doctoral students in education to transition from being educators to becoming education researchers (cf. Bulterman-Bos, 2008). Contributing to that end, a classic text for literacy researchers, in its seventh edition and often required reading for doctoral students, is *Theoretical Models and Processes of Literacy* (hereafter *TMPL*; Alvermann, Unrau, Sailors, & Ruddell, 2019). It is unimaginable that promising new literacy researchers could not elucidate theoretical positions that inspire and provide meaning and guidance to their work. No doctoral dissertation is likely to be approved without some invocation of relevant theory (cf. Boote & Beile, 2005), and manuscripts and conference papers reporting research can be summarily rejected if they lack a theoretical grounding. Yet, the former editors of a leading literacy research journal (Anders, Yaden, Iddings, Katz, & Rogers, 2016) editorialized that the greatest concern across approximately 600 manuscripts reviewed during their editorship

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was “the need for literacy researchers to more clearly explicate the conceptual foundations of the theories invoked and subsequent impact of those theoretical

1 frameworks upon design, analysis, and interpretation
of
2 the studies conducted” (p. 3).
3 Given that theory is a touchstone of literacy
research,
4 it seems reasonable to expect a consensual
understanding
5 of precisely what it is and what role theorizing
plays in
6 our work. We would expect some agreement, for
exam-
7 ple, about responses to questions such as the
following:
8 Toward what ends do we engage in theorizing, and
spe-
9 cifically, how does it serve the ultimate goals of the
field?
10 Are there particular views of theory that might be
more,
11 or less, meaningfully valid in literacy research as a
prac-
12 tice-oriented field? Also, as implied by our title, are
some
13 theories and uses of theory more productive than
others?
14 In this commentary, we address such questions,
propos-
15 ing productivity as a unifying construct that might
16 deepen our collective understanding of theory and
better
17 align theorizing with the ultimate goals of the field.
Our
18 motivation is derived partially from evidence,
presented
19 in a subsequent section, that, in the field of literacy
20 research, the term *theory* has been used too loosely
and
21 amorphously and has lacked coherence, and thus, is
sub-
22 ject to the critique that the introductory quote
suggests.
23 We frame our argument as a commentary
because,
24 according to Trimbur (2013), it “is a genre of writing
that
25 uses analysis and interpretation to find patterns of
mean-
26 ing in events, trends, and ideas” (p. 283). A
commentary
27 allows us to make an argument traversing a diverse
litera-
28 ture, allowing for more speculation and opinion than
29 other genres of scholarly publication. Also, although
we
30 do not wish to press the point too strongly, a
commentary
31 seems consistent with our career-long involvement

in
32 diverse aspects of literacy research and
theorizing, includ-
33 ing conducting large-scale funded research
34 projects, pub-
lishing, editing, reviewing, and mentoring.
Nonetheless,
35 we humbly realize that others, equally
experienced, might
36 offer reasonable counterarguments to the
perspectives
37 and interpretations that we present. Our goal
is not to win
38 an argument but to initiate what we believe
to be a much-
39 needed, and overdue, dialogue about the
role of theory
40 and theorizing
in the field. 41

42 Premises About 43 Productivity

44 *Productive Theorizing Is More* 45 *Than*

46 *Claiming a Theory*

47 **3** We believe that an awareness and
understanding of theory,
48 if it is to be productive, must go beyond
simply claiming
49 one and comparing or contrasting individual
theories that
50 might frame and inform a body of research.
To be produc-
51 tively theoretical, we believe, means
something more. It
52 means understanding the nature, role, and
potential con-
53 tributions of theory, as well as its pitfalls. It
means under-
54 standing that theory is a multifaceted
construct with many 55

uses and meanings, and it means being precise about how theory is defined and used when it is invoked. For example, Chambers (1992; see also Thomas, 1997) identified nine clusters of meanings for theory in education research. These meanings included hunches, heuristic speculation, dogmatic beliefs, and explanations of empirical data. Theory and the role of theorizing in research have also been contentiously debated in the physical sciences for decades (e.g., Feyerabend, 1970; Godfrey-Smith, 2003; Horwich, 1993; Kuhn, 1962; Morris, 2018; Popper, 1959; Richards & Daston, 2016) and also in the social sciences (see Chambers, 1992; Lincoln, Lynham, & Guba, 2018; Thomas, 1997). We believe that some of these meanings and uses of and perspectives about theory, given the nature and goals of literacy research, may be more productive, and others less so. If so, a first step in considering productive theorizing is for literacy researchers to explain what exactly they mean by *theory* and why they believe a particular meaning is well suited to the goals of their work. This commentary aims to contribute to that consideration.

A Productive Theory Is Useful in Accomplishing Goals

Box (see Box & Draper, 1987), a prominent statistician, introduced an aphorism that captures the essence of theoretical productivity: “Essentially, all models [and theories] are wrong, but some are useful” (p. 424). Similarly, polymath Bateson (1979) stated “that there are better and worse ways of constructing scientific theories, and in insisting on the articulate statement of presuppositions so that they may be improved” (p. 29). Consistent with these views, even a wrong or incomplete theory can usefully advance understanding and reliably meet practical challenges (e.g., Einstein’s theory of gravity replaced Newtonian physics, but the latter is productively useful in many situations). Fundamentally, then, a productive theory is a useful one, employed with a humble awareness that it is likely incomplete and, at least occasionally, entirely wrong. Yet, useful in what sense? We believe that a useful theory is one that contributes to accomplishing the ultimate goals of our research. Yet, what are the goals of education/literacy research?

Productive Theory Enhances Personal and Societal Well-Being

We agree with Unrau, Alvermann, and Sailors (2019), who stated in *TMPL* that a central goal of theorizing should be “to formulate new literacy theory that aligns with evidence and promises better outcomes in our schools and universities” (p. 30). That goal aligns with Hostetler’s (2005) position that, most fundamentally, good education research enhances people’s well-being. Or, as Ranis (2009) stated, “education research is a field that

inherently honors research for the social good” (p. 129). Thus, productive theories in education research in general and literacy research in particular are ultimately theories that facilitate conducting, interpreting, and applying research that enriches people’s, and by extension societal, well-being, most often in educational contexts. Productive theories, then, serve socially pragmatic goals (see Dillon & O’Brien, 2019). What constitutes well-being and the social goals that enable it may be contested, and should be, within democratic societies. Yet, productive theories facilitate, in practice, agreed-upon values and goals.

Less productive theories are those that do not substantively advance, or distract researchers from, striving for that overarching goal. Thus, productive theories should be more than attractive abstract academic constructs that are intellectually satisfying; they should be demonstrably useful toward enhancing literacy, however it might be defined, as a means for improving personal and societal well-being. However, we do not take the stance that less productive theories have no value, only that making a distinction between more and less productive theories, specifically in terms of enabling societal well-being, would be beneficial to the field. It would help ensure that literacy researchers accept responsibility for and remain focused on the field’s ultimate goals. Moving such a distinction into the consciences of researchers and the culture of literacy research would, we believe, stimulate more productive research and theorizing.

Distinguishing Theory for and About Literacy Is a Dimension of Productivity

We believe that the contrasting prepositions in the heading above capture a useful distinction that lays a foundation for considering theory’s productivity (cf. Biesta & Burbules, 2003; Labaree, 2004; Phillips, 2009). Such a distinction is justifiable, we believe, because contrasting theory and research *about* literacy and *for* literacy might, in one sense, be analogous to the distinction between psychology and applied psychology or between linguistics and applied linguistics (Labaree, 2004). Phillips (2009) made a similar distinction between education *research* and education *scholarship*. Education *research*, and literacy research carried out under its umbrella, is inherently applied research aimed at finding ways to better achieve educationally valued outcomes and goals. Education researchers hold themselves accountable for engaging in work that advances the goals of education. Education researchers, typically and appropriately, have had first-hand involvement in education practice at some level, and they are the mainstay of faculty in schools and colleges of education and in education agencies. Similarly, literacy

researchers who are education researchers do research *for* literacy, seeking theories that productively

advance literacy as an educational endeavor carried out mainly by teachers and others in the realm of practice. Education *scholarship*, in contrast, aims to better understand aspects and issues of education, or literacy, with grounding in disciplines such as history, anthropology, sociology, political science, psychology, economics, and philosophy. Education scholars view education as essentially a societal institution and those involved in aspects of that institution as enactors to be studied, rather than agents to be informed. Education, or literacy, scholarship does not necessarily assume responsibility for improving practice, although it may aspire to do so. Scholarship also includes critiques of education, or literacy, and its practice, sometimes focusing on its shortcomings, limitations, and unmet challenges, but less often on how to rectify them. That is, education scholars interested in literacy do work *about*, not necessarily *for*, literacy. Their work may offer needed perspective while expanding awareness and understanding of the multiple, fascinating dimensions of literacy. However, we wish to highlight several caveats. First, we emphatically do not propose this distinction as a dichotomy. Instead, as we illustrate in a subsequent section, we conceptualize this distinction as a matter of emphasis existing fluidly and dynamically across a continuum—a distinction more of degree than of fixed kind. Put another way, we are not advocating for theories being sorted into clearly demarcated buckets, as one reviewer of an earlier version of this article suggested. Further, as we illustrate and discuss in a subsequent

section, the interplay of theorizing across a continuum *about* and *for* literacy can enhance productivity. For example, theories *about* literacy can reveal hidden or ignored dimensions of literacy and establish valued goals or a guiding moral conscience *for* literacy research, or as Suppes (1974) argued, what is superficial and what is important. Many theories imported into literacy research from other fields and disciplines seem to serve this latter purpose, such as postcolonial theory (literary theory), critical race theory and intersectionality (legal studies), posthumanism (philosophy, literary criticism, and artificial intelligence), semiotic mobility (semiotics), discourse communities (linguistics), spacetime-mattering (post-structural feminism), and third space and positioning theory (social psychology). However, as we argue in a subsequent section, such theories might be more productively moved from the realm of pure scholarship *about* literacy to the realm of research *for* literacy.

The dynamic interplay between theories *about* and *for* literacy on a continuum is also consistent with the stance of Stokes (1997), who argued that the distinction between basic and applied research is a false dichotomy leading to the inaccurate and misleading perception that basic research is foundational to and drives applied research, even in the hard sciences. More typically, new fundamental

1	theoretical insights emerge from systematic attempts	35	theorizing is not consummated, and thus not
to			fully produc-
2	address the practical challenges of achieving a sought-	36	tive, until it can demonstrate practical utility.
	after		In this view,
3	goal. For example, aeronautics arose from the Wright	37	grand, abstract theories about literacy and its
4	brothers attempts to go beyond theories of lift to		multiple
	enable	38	dimensions (theories <i>about</i> literacy), and the
5	controlled flight. Theories of microbiology (and the		work they
	undo-	39	inspire, are productive only when embedded
6	ing of inaccurate theories that chemical, not biological,		within a pro-
7	processes were involved) emerged from Pasteur's	40	gram of research ending in practical utility.
	efforts to		Conversely,
8	preserve food. Statistical theories and procedures	41	productive theorizing in an applied field is
	were		limited when
9	developed in the context of improving agricultural	42	overarching theories <i>about</i> literacy are
	yields.		isolated or discon-
10	Finally, we acknowledge that literacy is a broad	43	nected from a consideration of theories <i>for</i>
	and		literacy. Failing
11	multidimensional area of study, and we hold a strong	44	to make this distinction, we believe,
	com-		constitutes less produc-
12	mitment to academic freedom among our colleagues	45	tive theorizing and sustains the frequently
	who		acknowledged
13	wish to pursue any of its dimensions and any theories,	46	gap between research and practice. However,
14	<i>about</i> or <i>for</i> literacy, that they deem relevant.		lest Hoadley's
	Nonetheless,	47	(2004) and our point be misunderstood,
15	an awareness of a distinction between literacy theory		consummated
	and	48	theorizing is not productively achieved in a
16	research <i>for</i> and <i>about</i> literacy may add a more		final sense only
	nuanced	49	through conventional experiments.
17	perspective to the field's theorizing, reminding literacy		Demonstrating, exper-
18	researchers that, to be productive, theory must	50	imentally, the effectiveness of instructional
	continually		interventions
19	move toward achieving the goals of an applied	51	may be productively useful in making
field. 20			generalizations
21		52	across contexts. However, even more
2	<i>Productive Theories Are Consummated</i>		productively useful
23	<i>in Practice</i>	53	for practice are finer tuned contextual
24	Hoadley (2004) introduced the term <i>methodological</i>		understandings
	<i>align-</i>	54	related to process—how goals are achieved
25	<i>ment</i> , which we believe speaks to productive		(see Pressley,
	theorizing in	55	Graham, & Harris, 2006).
26	an applied field. Alignment, in his view, is an		
	overarching		
27	and coherent body of work that is not complete		
	until it		
28	speaks directly to achieving practical outcomes. Such		
29	alignment has implications for theory because, as		
	Hoadley		
30	argued, "carry[ing] ideas all the way from explanation		
	to		
31	prediction to falsification <i>to application</i> [emphasis		
	added]		
32	seems like the missing link in educational research that		
	will		
33	ensure our theories have practical implications" (p.		
	205).		
34	Put another way, in an applied field such as		
	education,		

There are prominent historical and more contemporary examples of Hoadley's (2004) notion of alignment in the field, illustrating how theorizing and research can move productively from *about* to *for* literacy. LaBerge and Samuels's (1974) general theory of attention and automaticity from the field of educational psychology led Samuels (1979) to develop repeated reading as a theory-based instructional activity to enhance reading fluency and comprehension. Brown and her colleagues (e.g., Brown, Armbruster, & Baker, 1986) conducted theoretical and empirical work on metacognition. Her laboratory research *about* literacy led her to develop reciprocal teaching (Palincsar & Brown, 1984) and inspired strategy instruction (in effect, a pedagogical theory *for* literacy) as an approach to teaching reading comprehension. Yet, Brown (1992) had a palpable awareness that the methods and theories that guided her laboratory work were not productive in guiding attempts to move her laboratory findings into classrooms, leading her to seek new methodologies and new theories of implementation *for* literacy. Specifically, she replaced the experimental methods of the laboratory work with what she termed *design experiments*, mixing quantitative and qualitative approaches, to develop pedagogical theory. For example, she theorized from her data that reciprocal teaching was more effective when students took a more active role in their own learning and teachers were positioned as guides rather than dispensers of knowledge.

Heath (1983) is another example. She used anthropological methods to develop theories *about* literacy in rural Appalachia, which became foundational to informing her efforts to enrich literacy there. More recently, Lee (2013) used theory about African American students' mental models of language to develop instructional activities that used their vernacular to enhance responses to literature. A special case is Rosenblatt's (e.g., 1994) transactional theory of textual meaning and purposes. Although an abstract theory *about* literacy, it contained easily understood metaphors (e.g., the transaction between a river and its banks) with transparent implications *for* pedagogical practice. Similarly, González, Moll, and Amanti (2005) proposed funds of knowledge as a theory with clear implications for classroom practice and enhancing social justice. We believe that productive theorizing in the field would be enhanced if these examples were emulated as an expected progression in moving theories *about* literacy to *for* literacy.

Problems With Theory and Theorizing in Literacy Research

In this section, we provide examples suggesting that many theories within the field's literature are nebulously defined and incoherently applied. As a commentary, we do not offer a comprehensive review, only prominent examples in

support of an arguable position for proposing productivity as a needed, potentially ameliorative construct. We argue that the problems we highlight here are symptomatic, if not causal, in limiting theoretical productivity. Thus, we establish conditions suggesting the need for a clarifying construct such as productivity, and we set the stage for defining productivity and offering proposals for increasing it.

Lack of Terminological and Conceptual Clarity

Ambiguities, concerns, and even contradictions about theory in the field's literature are not difficult to find. For example, disciplinary literacy (e.g., Moje, 2015), reading engagement (e.g., Baker, Dreher, & Guthrie, 2000; Guthrie, 2004), and new literacies/multiliteracies (e.g., Coiro, Knobel, Lankshear, & Leu, 2008; Kalantzis, Cope, & Cloonan, 2010) have each been labeled interchangeably as theories or perspectives. In addition, translanguaging has been called a conceptual framework (MacSwan, 2017), a practical theory (Wei, 2018), as well as an ideology, a theory of bilingualism, a pedagogical stance, and a set of practices (Mazak, 2016). Whole language, across decades, has been called not only a theory but also a perspective, a philosophy, a movement, a set of principles, an approach, and a curriculum (cf. Chen, Cheng, & Chou, 2016; Goodman, Fries, & Strauss, 2016; Ridley, 1990). However, given the gravitas of theory, ambivalence often trades on hybrid terms such as *theoretical perspective* or *emerging theory*. Yet, we can find no precise explication of how such terms differ from the term *theory*. For example, we wonder what criteria must be met for an emerging theory to become a full-fledged one or how a theoretical perspective differs from a theory.

theory.

Subsequently, Mosenthal (1984) claimed that the interpretation of theories in reading were increasingly

Previous Attempts to Clarify Theory

In an early attempt to impose order on theorizing in literacy research, De Beaugrande (1981) offered 16 design criteria for establishing valid and useful theoretical models of reading processes. Within an information-processing paradigm, he suggested that models should be evaluated on criteria such as the nature of processor contributions (i.e., bottom-up vs. top-down approach), type of memory storage (abstraction, construction, and reconstruction), utilization (complete vs. partial analysis of text elements), and so forth. After comparing nine reading and language processing models, including his own, De Beaugrande's conclusion was that no model of text processing provided an optimal explanation for complex language and literacy processing. However, we can find no prominent examples of his criteria subsequently being used widely to develop or apply

problematic because (a) literacy theorists are selective in what elements they choose to define and operationalize in their literacy models, and more importantly, (b) theories and models must be understood in light of the socio-political orientation of those who formulate them. Given this selectivity and the diversity of ideological orientations, Mosenthal concluded pessimistically that “until this sociopolitical process is understood, the question of what reading is will continue to be unresolved” (p. 221). We again find no evidence that the field subsequently attempted to resolve these problematic aspects of theory development and interpretation. A decade later, Cunningham and Fitzgerald (1996) encouraged the literacy community to evaluate theories and claims about literacy in relation to researchers’ epistemological orientations. For example, Cunningham and Fitzgerald contrasted Rumelhart’s (1977, 1985) interactive, hypothetico-deductive model of reading with Rosenblatt’s (1968, 1994) transactional, contextualist view. They then listed benefits of evaluating reading research according to the respective epistemological orientations, thus enabling researchers to “see that there are multiple ways of considering knowledge, each of which may potentially be valid” (Cunningham & Fitzgerald, 1996, p. 58). Although their work was often cited and furthered conceptual clarity, we find no convincing evidence that it had widespread or long-lasting influence on theorizing in the field. In fact, more contemporary sources, to which we now turn, suggest continued ambiguity.

Current Ambiguities on Uses of Theory

in Research

To the extent that there is clarity about theory, we would expect to find it in two authoritative and widely used volumes in the field: the seventh edition of *TMPL* (Alvermann et al., 2019), the classic archival reference pitched toward researchers, and the third edition of Tracey and Morrow’s (2017) *Lenses on Reading: An Introduction to Theories and Models* (hereafter *LR*), which is aimed more at practitioners. However, both volumes embrace an accommodating eclecticism, if not unsettling ambiguity, toward theory and its role. For example, in their introductory chapter framing *TMPL*, Unrau et al. (2019) portray theory in terms of classical science (e.g., as reflecting reality, having truth value, and producing durable generalizations). Yet, they also acknowledge that theories are subjective, interpretivist, and ideological and that the editors’ placement of chapters in the volume may not “remain accurate over time as ideologies evolve” (p. 9). *LR*’s authors also see theories both as “*explanations for why they* [researchers] *expect something will happen*” (p. 9) and as lenses through which the world can be viewed.

Yet, in our view, the stance most oppositional to productivity—a stance shared across these volumes—is

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1 that researchers are free agents who choose theories
 based 2 on their personal views about and dispositions
 3 toward lit-
 4 eracy. In *TMPL*, for example, Unrau et al. (2019) state
 5 that
 6 the book's purpose is to help "readers think through
 7 vari-
 8 ous dichotomies and differences in the field of
 9 literacy
 10 research to discover what perspectives they find
 11 compati-
 12 ble with their present knowledge and beliefs" (p. 4). In
 13 *LR*,
 14 the authors similarly suggest that for researchers,
 15 there is
 16 no one correct theory for framing their work and,
 17 specifi-
 18 cally, that "researchers can *choose* [emphasis added]
 19 from
 20 a wide variety of theoretical perspectives...*available*
 21 [emphasis added] to them" (p. 9). These exhortations
 22 to
 23 literacy researchers seem unproductively solipsistic,
 24 even
 25 unnecessarily anarchic (see Feyerabend, 2010),
 26 especially
 27 in a practice-oriented field that ostensibly looks to
 28 research for productive guidance. An apt analogy
 29 might
 30 be shopping in a department store for clothing that
 31 one
 32 finds attractive or that fits one's personal style, as
 33 opposed
 34 to going to an outdoor store to find functional
 35 clothing
 36 suitable for challenging terrain or inclement weather
 37 to be
 38 encountered on a wilderness adventure.
 39 Further, unproductive theorizing may be
 40 exacerbated
 41 when, as is clearly the case in these two authoritative
 42 vol-
 43 umes, most of the theories highlighted are imported
 44 from
 45 other fields and weighted toward theories *about*
 46 rather
 47 than *for* literacy. Neither volume critiques the
 48 pedagogi-
 49 cal utility of these imported theories, nor are there
 50 justifi-
 51 able caveats about whether literacy researchers are
 52 sufficiently familiar with such theories when
 53 applying
 54 them to literacy. That issue has been raised in the
 55 litera-
 56 ture. For example, despite the extensive literacy

research
 32 grounded theoretically in Vygotsky's work,
 33 literacy schol-
 34 ars deeply familiar with his work have
 35 argued that it has
 36 been mostly misread among literacy
 37 researchers (e.g.,
 38 Smagorinsky, 2011;
 39 Yaden, 2017). 36

37 ***Empirical Evidence That Theory***

38 ***Is***

39 ***Problematic in Literacy***

40 ***Research***

41 Two studies investigated how theory has
 42 been used in the
 43 field's research literature. Taken together,
 44 they reveal
 45 problems and concerns about the coherency
 46 and produc-
 47 tive use of theory in the field's literature
 48 across almost
 49 three decades.
 50 Dressman (2007) analyzed how theory
 51 was posi-
 52 tioned in 69 articles published between
 53 1992 and 2003 in
 54 three leading literacy research journals
 55 (*Journal of*
Reading Behavior/Journal of Literacy
Research, Reading
Research Quarterly, and *Research in the*
Teaching of
English). Among his conclusions were that
 (a) "in some
 instances it was difficult to separate what
 was 'theory' and
 what was 'research'" (p. 341); (b)
 researchers typically
 positioned their work in relation to more
 than one theo-
 rist, making it difficult to integrate the
 report into a uni-
 fied whole; and (c) "the nature of the
 relationship that

authors developed between their findings and the way that theory functioned to define, support, or challenge the meaning constructed from those findings varied widely” (p. 344). Finally, he found that theory was used within four different overarching frames: (1) a broad platform for framing a research agenda, usually in the introduction; (2) a foundational apparatus used in the introduction and discussion, but little in between; (3) a discursive scaffold, with explicit alignment of theoretical precepts to data throughout the report; and (4) a dialectical scaffold creating a persistent tension between or among theories and data.

Dressman’s (2007) overall conclusion is particularly relevant to our argument. Although the application of theory in the articles he analyzed created a rich intellectual narrative, they were “lacking in practical usefulness or advancement of general knowledge about a phenomenon” (p. 349). He found theory used frequently as a warrant for the study itself, rather than as a warrant for specific findings. Theory as dialectical scaffold, which created an inherent tension between theory and data, was the only category that created an opportunity for connecting empirical data to building new, consequential theory or refining existing theory. However, that category contained only nine of the 69 studies. Social theories, in contrast, were used typically as a rhetorical frame to establish that a perspective, topic, or question mattered. Thus, the relation between the theory and the data formed a closed system. Theories frequently represented more of a passionate idealism, with little commitment to furthering understanding based on empirical data—steering “toward the stars rather than by the stars” (Alexander, 2000, as cited in Dressman, 2007, p. 353). He concluded that this common orientation represented a lack of skepticism about how theoretical constructs and data were related.

More recently, Parsons, Gallagher, and the George Mason Content Analysis Team (2016) analyzed the topics, theoretical perspectives, research designs, and data sources of more than 1,200 articles in nine peer-reviewed literacy journals. In their initial analysis, they reported categorizing the theoretical perspectives using those identified in the aforementioned authoritative sources on theory (*TMPR* and *LR*). However, Parsons et al. found that nearly half of the articles’ initial codes were labeled *other*. Adopting a more stringent approach, Parsons et al. categorized theory only when it was explicitly named and connected to interpreting data. Notably, that approach resulted in 76% of the articles having an unspecified theory. Parsons et al. concluded that a reliance on implicit theoretical perspectives suggested that literacy researchers felt no compulsion to be more explicit, because they were operating within thought collectives (Fleck, 1979).

In summary, we believe that this brief overview of work across almost four decades provides sufficient

evidence to justify continued concern about the status and role of theory in the field. Problematic ambiguities and documented limitations remain unaddressed, directly and systematically. We, unfortunately, agree with Calfee's (2014) assessment that "the field lacks a coherent disciplinary core, and so is vulnerable to the emergence of a virtually unlimited variety of claims, afflictions, and remedies" (p. 9). Focusing on theory and its role in terms of productivity, we believe, could be a unifying ameliorative frame.

as Sleeper (1986) argued, instrumentalism played a subordinate role in Dewey's larger philosophical frame of transactional

Conceptualizing and Defining Productivity: An Instrumental View

Technically, productivity is an economic concept referring to efficiency in producing valued goods and services. We use the terms *productive* and *productivity* metaphorically to mean efficiency in generating useful knowledge in conjunction with achieving valued goals within a practice-oriented field. Although only a working definition, we believe that considering productivity in this sense could initiate a needed dialogue about theory among literacy researchers. The premises we outlined earlier in this commentary and the proposals we offer in a subsequent section flesh out our ideas about productivity. In this section, we take a rudimentary step toward a more precise definition grounded in the philosophy of science.

Productivity as an Operational Construct of Instrumentalism

In the philosophy of science, there are ongoing, contentious theories about theories and the role of theorizing (see, e.g., Godfrey-Smith, 2003). Alternative theories about theory, and the debates that they inspire, primarily revolve around epistemological differences about what constitutes knowledge, truth, and justifiable belief, which are often manifested in allegiances to methodological approaches and research paradigms (Dillon, O'Brien, & Heilman, 2000). Cunningham and Fitzgerald (1996) discussed how this broad array of epistemological differences about theory might apply to literacy research, including instrumentalism, which we see as a logical foundation for the construct of productivity and well matched to the goals of a practice-oriented field. These and other similar sources point to the complex entanglements among views of science, conceptualizations of theory, and the methods used to conduct research, and thus to the potential utility of a single unifying construct.

Instrumentalism has its roots in American pragmatism as advanced by John Dewey. Although,

realism (see also Boyles, 2012), that frame included “an involvement that is causally efficacious” (p. 3). As Biesta and Burbules (2003) stated,

the central idea of Dewey’s pragmatism [is] that knowing and acting are necessarily related...[and that] the (alleged) separation between theory as the domain where we acquire knowledge independent of our activities, and practice as the domain where we apply this knowledge, can no longer be sustained. (p. 86)

Further, they stated that, for Dewey, “the difference between theory and practice is only a functional and gradual distinction” (p. 87) and that “the point of knowledge is not to know more simply for the sake of knowing, but to be able to exert greater control over the problematic situations we find ourselves in” (pp. 97–98). In short, theorizing is inseparable from practice, and from an instrumental view, it is reasonable to consider how theory might productively influence, guide, and indeed, reflect practice. Instrumentalism implicitly privileges theory that can be applied for literacy and counters the historical separation in education research between research and practice (Lagemann, 2000).

Thus, productivity can be conceptualized as a related, but separate, construct that flows naturally from an instrumental view of theory associated with Dewey and other pragmatists. We are not proposing productivity as a new, alternative theory about theory, nor do we believe that it is necessary to do so. Instead, we see productivity as useful because it holds theorizing accountable to the underlying rationale of instrumentalism. Productivity makes the abstractness of instrumentalism concrete. It presses for

operationalizing the benefits that instrumentalism suggests theorizing can serve in practice. For example, productivity implicitly asks, How can we productively frame our theories as instrumental to achieving the goals of a practice-oriented field dedicated to developing literacy? To what extent have we been successful in achieving specific goals, and are we being successful? What are reasonable indicators of progress or the lack thereof?

Further, productivity more explicitly suggests discussions about what exactly our goals are, why they are valued, and the degree to which we have consensual, or at least coherent, understandings about the endpoints of our theorizing. As Dillon and O’Brien (2019) stressed, pragmatism is much more than achieving what works; it entails an explicit consideration of what is desirable. Productivity, as a construct, highlights that issue more than instrumentalism alone. That is, producing many products efficiently, if those products have little value, is not productive. It is also in this sense that productivity allows space for theories about literacy. Theories about literacy may not always be fully productive in their own right, but they can help clarify values and identify factors that might efficiently instantiate them. Nonetheless, achieving, not simply identifying and clarifying, values is

1	the ultimate measure of theoretical productivity in a	38	preferred
prac- 2	tice-oriented field.	39	theories can limit, and delimit (cf. Mosenthal, 1984), what
3	A good example of this relation between theories	40	data are observed, how they are
4	<i>about</i> and <i>for</i> literacy is the questioning of deficit	41	interpreted, and even
5	models	42	what studies are conducted and how they
6	of literacy grounded in sociocultural theories, such as	43	are designed.
7	funds of knowledge (e.g., Moll, 1990; Moll &	44	Theory-laden perception can distort
8	González,	45	understanding the
9	2004) and cultural-historical activity theory (see,	46	fullness of phenomena and may inhibit
10	e.g.,	47	researchers from
11	Gutiérrez, Morales, & Martinez, 2009), both of which	48	generating new, potentially more useful
12	are	49	theoretical per-
13	theories <i>about</i> literacy and were imported from	50	spectives. A strong, even unshakable,
14	cultural	51	attachment to a
15	anthropology. Yet, these theories have immediate	52	theory may set up a closed system in which
16	impli-	53	the evidential
17	cations for shifts in pedagogical perspective and have	54	checks and balances that act as a self-
18	productively inspired research into how they can be	55	corrective for inad-
19	implemented in practice (see, e.g., Rodriguez,		equate, incomplete, or incorrect theories are
20	2013). 14		suppressed.
21	<i>Productivity Mitigates Limitations</i>		Productivity may help researchers resist
22	<i>of Theorizing</i>		becoming uncrit-
23	There are other advantages when productivity is		ical devotees of attractive theories. Instead,
24	linked to		they would
25	instrumentalism as an expression of pragmatism. For		become more open-minded problem solvers
26	example, Dillon et al. (2000) argued that a pragmatic		seeking the-
27	stance		ories that demonstrably move the field
28	defuses paradigmatic disputations that distract		forward, ulti-
29	researchers		mately enhancing practice toward achieving
30	from conducting research that is “prone to making a		valued goals.
31	differ-		A second limitation is
32	ence in students’ learning and teachers’ pedagogy” (p.		incommensurability (e.g.,
33	25),		Feyerabend, 1970; Hacking, 2012; Kuhn,
34	thus increasing productivity. Productivity might also		1962), illustrated
35	miti-		in the example when students used different
36	gate two general limitations of theorizing. Phillips and		discourses to
37	Burbules (2000) reported an experience that		
	illustrates		
	these limitations. They asked two doctoral students,		
	one a		
	Freudian and the other a behaviorist, to provide		
	commen-		
	taries on a video about an autistic woman. Phillips and		
	Burbules found “an amazing disparity—[the students]		
	noticed quite different things (often ignoring events		
	and		
	features that the other pointed to as being significant),		
	and		
	of course they used quite different terminology to		
	speak		
	about what they were seeing” (p.16).		
	The example illustrates the limitation of theory-		
	laden		
	perception (e.g., Hanson, 1958), where commitment		
	to a		
	theory dictates what is noticed. Established or		

describe what they saw. Using incommensurate terms and language inhibits potentially productive interactions among researchers using diverse theories and perspectives. That limitation is amplified when there is a broad palette of theories from which to choose. In the extreme, an entire field may become balkanized and separated into thought collectives (Parsons et al., 2016), thus restraining productivity. In that vein, Calfee (2014) characterized the field as “like the Tower of Babel, [where] the inhabitants speak different languages and communication can be a challenge” (p. 9). Considering the productivity of theory and theorizing might mitigate such incoherency, encouraging researchers to build bridges across their differing terminologies, discourses, and disciplinary perspectives (see Almasi, 2016).

Proposals for More Productive Theorizing

Guided by the issues raised in the previous sections, we propose several ways that theorizing in literacy research might be more productive. We offer the following proposals, not prescriptively but to initiate conversations that might lead to more productive theorizing.

Conceptualize Theorizing on a Continuum Between Theories About Literacy (Literacy Scholarship) and Theories for Literacy (Literacy Research)

Figure 1 is a purely illustrative continuum that helped us clarify our thinking and that might be useful for initiating discussions about the role of theory and productive theorizing in the field. The figure has several hypothetical elements related to issues raised in this commentary. The main element is conceptualizing theories on a continuum from theories *about* literacy to *for* literacy. We then added hypothetical categories along that continuum to illustrate that as theorizing moves from *about* to *for* literacy, theories become less abstract and more instrumental to informing practice. These categories also illustrate comparable movement from theories that are exogenous to education and literacy to those that are endogenous. Finally, we created a vertical continuum from broad, general theories to narrow, specific theories, highlighting the latter that are more directly related to literacy research. In general, then, theories that fall naturally (or can be moved, as we discuss in the subsequent section) toward the upper right area of Figure 1 are more productive in a practice-oriented field.

The specific examples of topical areas of theory or specific theories offered within the boxed areas are decidedly idiosyncratic to our own knowledge and experience.

FIGURE 1
Conceptualizing Theoretical Productivity in Literacy Research on a Continuum With Hypothetical Components, Domains, and Examples

Note. Shaded examples more directly relate to language and/or literacy.

1 Further, trying to create the categories along the
 2 about/for axis and choosing and placing examples was not easy
 3 or completely satisfactory. We did not completely agree
 4 with each other or with our own respective placements
 5 during sequential attempts to refine Figure 1. There was
 6 much room for equivocation and debate. Yet, our increasing
 7 frustration gradually gave way to the realization that
 8 pre-cisely establishing categories and placements within a
 9 con-
 10 tinuum of productivity was less important than the
 11 reflective discussion that it provoked.
 12 Thus, we believe that Figure 1 might serve as a
 13 useful heuristic for generating needed discussions about the
 14 role of theorizing in the field in general and productive
 15 theory in particular. For example, it might be critiqued in a
 16 doc-
 17 toral seminar on theory where participants could
 18 challenge the continua, categories, and topics/examples, perhaps
 19 substituting their own examples or creating an entirely
 20 dif-
 21 ferent approach to conceptualizing productivity. 19

20 **Shift Theories and Theorizing to the** 22 **Practice End of the Continuum**

23 Beyond its acknowledged limitations, the continuum
 24 in Figure 1 might also promote thinking about how
 25 theoriz-
 26 ing could become more productive by (a) moving
 27 abstract, conceptual, exogenous theories further
 28 toward the upper right area of the continuum and (b)
 29 increasing theories and theorizing that exist or evolve
 30 naturally in that area. An example of the former is social
 31 constructiv-
 32 ism, which we placed hypothetically near the
 33 midpoint of Figure 1. However, Au's (1998) application of social
 34 constructivism to the literacy development of students
 35 from diverse backgrounds moved the general theory more
 36 spe-
 37 cifically toward literacy practice. That movement is
 38 con-

35 sistent with the concept of methodological
 36 alignment (Hoadley, 2004) and the examples provided
 37 in previous sections (Brown, 1992; González et al., 2005;
 38 Heath, 1983; Lee, 2013; Rosenblatt, 1994; Samuels, 1979).
 39 Such move-
 40 ment is consistent with what Lagemann (2008) termed
 41 *translational research*, which she argued is
 42 best done by education researchers.
 43 Considering movement on the
 44 continuum also opens
 45 up the possibility of acknowledging, or
 46 arguing, that some theories exist in a realm where they are
 47 unlikely to achieve meaningful productivity—maybe a dead-
 48 end zone at the extreme abstract end of the continuum. We
 49 created such a category in Figure 1, which we labeled less
 50 colloquially as academic disputation. That is, some theories
 51 may inspire interesting intellectual debates among
 52 academics but are unlikely to be resolved or applied
 53 meaningfully and pro-
 54 ductively to practice in the foreseeable future. Examples
 55 might be neurological theories, which have been argued
 56 to be a bridge too far to inform pedagogy (cf. Ansari,
 57 Coch, & De Smedt, 2011; Bruer, 1997; Hruby & Goswami,
 58 2011; Mayer, 2017); theoretical explanations of dyslexia,

especially if students so diagnosed benefit from the same pedagogy as other readers having difficulties (see Elliott & Grigorenko, 2014); and whether it is necessary to accept postmodern views of the world before endeavoring to better it through literacy (see the discussion of Rorty's post-modern synthesis in Linn, 1996). As Willingham (2008) stated astutely, "as one gets more distant from the desired level of analysis (the child in the classroom), the probability of learning anything useful diminishes" (p. 422).

Increasing Local, Humble Theorizing

Productivity can also be increased through generating, assessing, and refining theory that originates in and speaks directly to practice. Cobb, Confrey, diSessa, Lehrer, and Schauble (2003) referred to such theories as humble or local; "theories...are humble not merely in the sense that they are concerned with domain-specific learning processes, but also because they are accountable to [creating workable instruction]" (p. 10). Such theories address the inevitable variation and complex interacting influences and outcomes operating in classrooms. Consequently, these theories need little translation to be immediately useful to practitioners and, thus, to be instrumentally productive.

In our own work (Bradley & Reinking, 2011; Colwell, Hunt-Barron, & Reinking, 2013; Colwell & Reinking, 2016; Howell, Butler, & Reinking, 2017; Reinking & Watkins, 2000; Scott-Weich & Yaden, 2017; Yaden, Gort, Martinez, & Rueda, 2019; Yaden et al., 2015), we engaged in such theorizing as we worked with teachers to implement various instructional interventions in their classrooms. We ground our work in general perspectives such as disciplinary literacy, new literacies, and multimodal literacies, which justify the pedagogical goals we seek and provide a broad frame for an intervention. Yet, as we collect data to determine what enhances or inhibits progress toward our goal and how consequent modifications of the intervention play out, we are able to adduce assertions or conjectures (Sandoval, 2004) that can evolve into pedagogical theories that may be extended, refined, or replaced in subsequent research in other contexts.

However, theories that are directly relevant to pedagogy are not necessarily local or humble. A prominent example is Ladson-Billings's (1995) pedagogical theory of culturally responsive teaching. Its scope was writ large yet with immediate implications for practice. Further, the theory inspired a wide range of investigations of how it could be productively implemented in classrooms, including several prominent studies in the area of literacy (see Morrison, Robbins, & Rose, 2008).

Acknowledge Ignorance and Failure as Productive Elements of Theorizing

Strong arguments have been made that ignorance and failure propel systematic efforts to understand, predict,

and enable phenomena (Feyerabend, 2010; Firestein, 2012, 2016; Stokes, 1997). In engineering science, investigating failure is often an essential, and therefore planned, component of creating workable solutions and furthering understanding (e.g., wind tunnels identify the conditions that can cause an airplane wing to fail; see Petroski, 2012). In practice-oriented fields such as education, failure need not be created or induced, as it is inevitable (Bryk, Gomez, Grunow, & LeMahieu, 2015). Studying failure can generate useful pedagogical theories about when and why failure occurs, and ignoring it undermines productivity. As Walker (2006; see also Bryk et al., 2015) argued, “every form of practice degrades under severe conditions. We need [pedagogical theories that allow practice to] degrade gracefully rather than catastrophically” (pp. 12–13). Likewise, Wagner (1993) argued that education research and theorizing are more appropriately viewed as reducing ignorance rather than finding a truth that negates failure. Focusing on failure in practice inherently means acknowledging ignorance about how to address it. Thus, we propose moving theorizing into the realm of failure and ignorance about practice, a realm that is virtually an empty set in the field’s literature, although there are tacit examples. Samuels (1981) and Hoffman and Rutherford (1984) identified factors associated with unexpectedly high reading achievement in disadvantaged schools. Payne (2008) documented the consistent failure of education reforms introduced in urban schools, synthesizing factors common to those few that succeeded. In our own work (Colwell et al., 2013), we reported reasons for why a pedagogical intervention was less than successful. However, these studies only marginally, or indirectly, attended to failure.

Acknowledging and studying failure may expand productive theorizing beyond effectiveness to include factors such as efficiency (e.g., affordability, time constraints) and appeal (are teachers invested in and do students like an intervention, and why?; see Reigeluth & Frick, 1999). This might productively distinguish operational (i.e., instructional method) and structural factors (e.g., curricula, financial exigencies, teacher training, inservice opportunities) that may enhance or inhibit success (Pressley et al., 2006). It might also generate productive theories from phenomenological data (see Roth, 2009) exploring, for example, what aspects of practitioners’ professional, personal, and cultural experiences make it more, or less, likely that they will embrace or resist promising interventions or perspectives.

identifying one’s perspective in conducting a research study or simply justifying a line of research. Further, we wonder if

Expect Theorizing to Go Beyond Identifying a Researcher’s Perspective or Justifying a Line of Research

In our view, productive theorizing is more than

theorizing can legitimately include simply making
 rhetorical arguments, as Dressman (2007) and Parsons
 et al. (2016) documented is often the case. Further,
 declaring allegiance to a particular perspective or justification
 in advance of designing studies and collecting data
 invites theory-laden perception, perhaps increasing the
 likelihood that researchers will find what they already
 presume to exist.

One example is new literacies, which is often
 referred to ambiguously as a theoretical perspective or
 emerging theory, notably in a lengthy edited volume (Coiro et
 al., 2008). The editors of that volume defined new
 literacy theory as a set of assertions, arguing that digital
 texts, especially on the internet, (a) require new skills,
 strategies, and dispositions; (b) are increasingly central to
 full civic and economic participation; (c) are rapidly
 changing and evolving; and (d) are multimodal and
 multifaceted. These assertions comprise a coherent rationale for
 conducting research that addresses a certain domain of
 questions and issues, and a researcher may reasonably
 signal agreement with them. These assertions might also be
 useful rhetorically to argue for more attention to the
 broad issues and challenges facing literacy educators that
 arise from forms of digital communication such as the
 internet (e.g., International Reading Association, 2009).

Yet, alone, these assertions do not represent a
 productive theory in the sense of predicting or explaining
 specific phenomena or directly informing pedagogy. It is
 one thing to establish that there are aspects of literacy
 meriting our attention. It is another to generate theories
 that

help us understand them and inform us about how to
 deal with them pedagogically. For example, new literacies,
 in an expanded version, was offered as the theoretical
 perspective for a useful study convincingly reporting
 troubling differences between the online skills of readers
 from advantaged or disadvantaged schools (Leu et al.,
 2015). However, there was no theoretical connection that
 might account for those differences or what might be
 done to eliminate them.

A study by Lewis and Fabos (2005) illustrated how
 new literacies might be more productively combined with
 other theory. They used new literacies, along with literacy
 as social practice, as a general orientation and rationale
 for their study of adolescents' views about and use of
 instant messaging. However, going beyond that orienta-
 tion, Lewis and Fabos used identity theory as a more spe-
 cific interpretive frame to productively understand their
 data. That is, their findings and interpretations expanded
 that theory productively into the domain of pedagogy by
 theorizing that adolescents saw instant messaging in
 school as intruding on their nonacademic social identities
 outside of school.

In contrast, if new literacies (perhaps also disciplinary
 literacy: see Hinchman & O'Brien, 2019; and translan-
 guaging: see Wei, 2018) were presented as a perspective

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instead of a theory, it might then be productively

lated into new curricular goals and instructional activities.

In fact, there is evidence of movement in that direction.

For example, Coiro (2020) referred to new literacies as a perspective, not a theory. Likewise, Leu, Kinzer, Coiro, Castek, and Henry (2017) referred to new literacies as a theory not only of literacy but also of instruction and assessment and identified broad areas of skills and dispositions that need to be taught. Yet, to move fully into the domain of productive theory, there needs to be theorizing about how those curricular and instructional goals can be achieved or what inhibits such efforts.

Frame Theorizing as a Dialectic

This proposal has two dimensions. First, it reinforces Dressman’s (2007) recommendation that theory should serve as a dialectical scaffold, defined as a “persistent tension between the theory used and the data collected” (p. 347). In that sense, productive theorizing means taking a more open, if not skeptical, stance where data can push back against theory and where researchers are more willing to see the limitations or inadequacies of their theories. It means placing theory itself under investigation, particularly in regard to its practical utility, as we argue here. It means a conscious effort to avoid the pitfalls of theory-laden perception and incommensurability. Also, it means engaging in dialogue with researchers to cross boundaries of theory and method (see Almasi, 2016), acknowledging common goals and committing to bridging differences toward achieving them.

A second dimension is adopting Dewey’s view that knowledge and practice are inextricably linked along a continuum, instead of conceptualizing knowledge as

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being separate from practice where it is then applied (Biesta & Burbules, 2003). It also means being aware and respectful of practitioners’ theories of practice and not ascribing low status to those theories (Cochran-Smith & Lytle, 1999; Harste & Burke, 1977). If a productive dialectic about theory is to be opened up between researchers and practitioners, we believe that researchers must attend to and respect practitioners’ theories of practice. A first step might be to recognize that some theories in the field’s literature today, particularly those *about* rather than *for* literacy and imported from other fields, are not, at least not yet, conversation starters with practitioners. We believe that considering productivity suggests that a useful next step would be to consider how such theories might be presented meaningfully to practitioners and policymakers.

That is not to ignore that practitioners’ theories of practice may be wrong, unwarranted, ineffective, or misguided. Productive theorizing also includes identifying when theories of practice conflict with research data or ignore useful perspectives *about* literacy, determining

14 | Reading Research Quarterly, 0(0)

how practitioners may be motivated to engage in more enlightened pedagogy, and refining useful theories of teacher change. It may also include developing respectful ways to nudge practitioners further toward the more abstract *about* literacy end of the continuum in Figure 1 or, as Biesta and Burbules (2003) argued, to get theory meaningfully into the minds of educators.

Other Avenues to Productive Theorizing

The previous proposals are only preliminary, and we hope our colleagues will expand, extend, and debate them. In this section, we provide a few other potential avenues toward increasing productive theorizing that merit further consideration. For example, some methodological approaches are more accommodating of the productive theorizing we envision. In addition to the phenomenological methods alluded to in a previous section, design-based research (Cobb et al., 2003; McKenney & Reeves, 2012; Reinking & Bradley, 2008) is naturally aligned with developing theories of practice. Such methods address Pressley et al.'s (2006) argument that literacy researchers should attend more to understanding the processes, not just the outcomes, of classroom interventions.

Another possibility is deemphasizing a priori theories in framing research, which may help avoid the risks of investing uncritically in an established theory. Instead, researchers could focus on observed phenomena and puzzling results and then theorize about possible causes, which historically has been a more generative and productive approach in the physical sciences (Firestein, 2012; Stokes, 1997). In fact, Sloman and Fernbach (2017) found that being exposed to causal explanations in advance restricts consideration of a full range of explanations. Further, they argued that causal thinking is less sophisticated and less productive than diagnostic thinking, the latter being more divergent, creative, and generative and arguably more attuned to the goals of a practice-oriented field.

A view of productive theory as instrumentally predictive also suggests alternative ways of collecting, analyzing, and interpreting data in relation to testing and refining theory. For example, abduction, introduced by the philosopher Peirce (see McKaughan, 2008), extended deductive and inductive reasoning into a less logic-bound domain. In its simplest form, abduction is an educated guess serving as a most likely explanation or as a pragmatic rule of thumb (see Dillon et al., 2000). Successive replications of a rule of thumb make guesses more educated. Such an approach aligns with Bayesian statistics, an alternative to the frequentist approaches to quantitative analysis employed in education research. In Bayesian statistics, an expanding array of objective and subjective data is quantified and then accumulated across studies/cases

toward making increasingly accurate predictions. The potential of that approach was recognized in 2011, when the Institute of Education Sciences funded a three-year project to explore the use of Bayesian statistics in education research (Kaplan, 2011).

umbrella of education research. It means a commitment to translating theory

Can the Field Embrace Productive Theorizing?

We realize that the perspective we propose here may threaten the status quo. Theory, we believe, has been left comfortably unexamined, undifferentiated, and amorphous in the field's literature for many decades (Calfee, 2014). The only unwavering imperative is that all research in the field must be theoretical in some sense. Conveniently, there is a broad array of recognized theories across many disciplines from which to choose. Also convenient is that there has been little impetus to explicitly consider what exactly counts as theory, what purposes it serves in achieving the field's ultimate goals, and how it relates to methodological issues in collecting, analyzing, and interpreting data. In short, theory has existed too comfortably apart from any dedicated commitment to considering how it might be more, or less, productive in moving the field forward toward well-defined goals.

The status quo permits researchers to select theories that they find personally appealing and consistent with their interests, perspectives, and preferred research agendas. It does not hold researchers explicitly accountable for the productivity of their theorizing. Thus, some researchers may feel uncomfortable leaving a space where theory captures their passionate imaginings of a better future (Dressman, 2007), where it represents a stimulating intellectual perspective, or where it aligns them with like-minded researchers (Parsons et al., 2016). Yet, as we have argued, that comfortable space too often provides little explicit guidance for how theory might inform practice. In this commentary, we argued that explicitly considering theory as instrumentally productive in a practice-oriented field may mitigate these shortcomings and address the gap between research and practice.

We have no illusions about the difficulty of convincing our colleagues to make such a transformation in their approach to theory. In many cases, it will likely make their theorizing and research, at least initially, more burdensome, necessarily more nuanced, and less driven by personal beliefs. However, we wish to emphasize again that it does not mean abandoning theories *about* rather than *for* literacy or theories from other disciplines. It means, however, accepting that such theories cannot be isolated from the pragmatic needs of instructional practice, especially for those who claim to be literacy researchers doing research *for* literacy under the

about literacy into terms that practitioners can understand, appreciate, and apply in their work. It means putting theories in harm's way to discover where they are inadequate or where they break down.

Our position does not require abandoning the intellectual stimulation of academic theorizing. From our own experience, we find that there is nothing more intellectually stimulating than trying to contemplate what does or does not work in practice and why. In fact, theory that exists too comfortably, or too firmly, in an individual's work may do just the opposite: create a stagnating, stifling, and ultimately unproductive posture.

There are encouraging signs that the time is ripe for reconceptualizing and thinking more critically about theory. For example, Snow (2015) bluntly stated that "the awful reputation [of education research] can be traced, at least in part, to its alarming fecklessness" (p. 461). She advocated for what she called practice-embedded education research (see also Coburn & Penuel, 2016), in which the role of theory and research become more aligned with practice-oriented fields such as medicine, agriculture, and highway safety. Further, the Institute of Education Sciences in the U.S. Department of Education now includes both technical and practice reviewers on panels for grant funding (Feuer et al., 2016). In a news-letter, Schneider (2019), the director of the institute, stated, "I want to emphasize how we are focusing on the mission of IES [Institute of Education Sciences] as an *applied research agency*" (para. 3). As these sources suggest, the issues we highlight here are clearly broader than

literacy research, applying to education research in general. Yet, they also create an opportunity for literacy researchers to lead the way for colleagues in related disciplines and fields of education.

More productive theorizing is unlikely to occur without dedicated action that values and nurtures it, beginning with the development of doctoral students and new scholars. The next generation of researchers needs more than methodological expertise and a menu of potential theories from which to claim their own. They need a clear understanding of a practice-oriented field's ultimate goals and how research and theory may productively serve those goals. They need an abiding commitment to bridging the chasm separating theory/research and practice. They need permission to draw on their craft knowledge, often derived from their own experiences as classroom teachers. Also, they need opportunities to critique theories and studies along the dimensions of productivity highlighted in this commentary, most appropriately in courses and seminars focusing on theory in literacy research. Proposal and dissertation defense committees should expect doctoral candidates to explain specifically not only what theory or theories they are drawing on but also questions regarding in what sense their theory is productive, how their line of research connects to practice, and so forth.

Likewise, editors and reviewers need to hold research-ers accountable for how the theories that anchor their work productively serve the goals of a practice-oriented field. Researchers should explicitly state and justify how theory is positioned conceptually in relation to the research conducted and reported. Is theory used to explain phenomena, predict outcomes, reveal unknown or neglected aspects of literacy, inform pedagogy, express or argue an ideological position, provide a rationale for a study, or other purposes? More importantly, researchers should connect theory to research designs and to how data are collected, analyzed, and interpreted, ideally with a commitment to allowing data to push back against the theory.

Further, there should be a heightened expectation that research reports include a section on educational or instructional implications. Publications committees in our professional organizations and editors of journals should consider how to involve successful, experienced, and knowledgeable practitioners in the peer review of research reports. When theories are imported into literacy research from other fields, the use and application of those theories should be reviewed by experts in the field of origin, or alternatively such experts should be included as coauthors with the literacy researchers.

We also need authoritative sources in the field that clearly state the role of theory and theorizing. More nuanced definitions of theory are needed with clarification of hybrid terms such as *theoretical framework*, *theoretical perspective*, *emerging theory*, and *theoretical model*. We need to move beyond accepting any theory or theorizing as unquestionably appropriate or adequate simply because it exists in the literature. We need to

disabuse ourselves of the notion that we are all free agents in selecting theories based solely on personal preference, intellectual appeal, or connecting us to like-minded colleagues. Also, we must hold one another accountable for explaining how our theories serve the ultimate goals of a practice-oriented field.

Finally, we need to ask, and if necessary challenge, all members of the literacy research community to address the questions and issues about theory that a consideration of productive theorizing raises. To accept the status quo is to ignore the empirical findings suggesting that theory has been problematic in the field's research literature and to cavalierly dismiss the long-lamented gap between theory/research and practice. Accepting the status quo risks allowing theorizing, as Dressman (2007) cautioned, to become an intellectual parlor game that is "a performance that matters mostly as a display of intellectual and cultural capital *within the game itself* and not the field as a whole or the broader audience of practitioners and policy makers it purports to serve" (p. 349). Although he was optimistic that theory would evolve beyond such shallow

purposes, we find little evidence that it has, now more than a decade later. Arguably, theorizing for its own sake may have become even more entrenched. Considering the productivity of the field's theorizing is one way to reverse that trend.

NOTES

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