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Transmission Creep: Media Effects Theories and Journalism Studies in a Digital Era

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Abstract:

The nature of digital media challenges the explanatory power of effects theories that rest on a transmission model of communication. As essentially linear conceptualizations reliant on identification and measurement of discrete message components, these 20th century theories are poorly suited to contemporary journalistic structures and forms. This article adds to the call for a more richly theorized concept of relationship effects suitable to an immersive, iterative, and interconnected environment of news producers and products.

Keywords:

Agenda-Setting Theory
Cultivation Theory
Digital Media
Knowledge Gap Hypothesis
Media Effects
Relationships
Spiral of Silence Theory

Transmission Creep: Effects Theories and Journalism Studies in a Digital Era

Throughout nearly a century of mass communication effects research, the production and consumption of mediated messages have proved both fascinating and frustrating in complexity. Scholars have raised and addressed questions related to virtually every avenue of social inquiry, including cultural, economic, historical, normative, political, psychological, and sociological.

Those questions have been taken up by researchers studying journalists and journalism – people and products far easier to define, locate, and interrogate in the 20th century than in the 21st. “News” once could be viewed as part of an institutionally sanctioned information package, produced within the occupational space of a newsroom and made available at regular intervals to readers, viewers, and listeners. Identification and analysis of the constituent parts of that production process are far trickier in a mediated world that has become dramatically less bounded and more interconnected.

“Journalism studies” emerged as a distinct sub-genre of mass communication scholarship just at the time that digital media began to gain prominence. Changes associated with emerging technologies, and the development of optimal ways to study the impact of those changes, therefore have been crucial areas of concern for journalism studies researchers. They have found that many of the concepts that shaped our understanding of the news media as a social force have lost considerable explanatory power as digital media have become pervasive. The purpose of this essay is to explore why many media effects theories, so valuable for so long, are difficult to apply to journalism studies today. After examining the theoretical limitations of inherently linear constructions, it suggests how the knowledge they have afforded can inform a holistic view of contemporary media.

Effects Theories from a Pre-Digital Age

In a more traditional media world than the one we now inhabit, a useful response to communicative complexity was to divvy things up into narrowly construed conceptual bits (Wahl-Jorgensen and Hanitzsch 2009; Zelizer 2004). Various aspects of the media thus have historically been studied by distinct and occasionally fractious clusters of scholars each drawing on different theoretical frameworks. This has happened within national academic cultures and even more strikingly across them (Wahl-Jorgensen and Hanitzsch 2009); French semioticians, British critical studies scholars, and American empiricists might all be looking at a newspaper, but they were likely to see quite different things.

In the United States, the dominant approach has been empirical, and its focus has been on media effects since the earliest efforts to understand the impact of propaganda in World War I (Bernays 1928). Twenty years later, Lasswell (1948) offered a formulation of communications research as the study of who says what, through which channel, to whom, and with what effect, a conceptualization that defined objects of study and guided development of the field for much of the rest of the century. We soon had a cogent if mechanistic “transmission” model of communication, with neat little boxes for message signals, sources, transmitters, and receivers (Shannon and Weaver 1949); before another decade had passed, it had evolved into a more nuanced model useful to the growing number of scholars specifically interested in the mass media.

Those even more specifically interested in the journalistic enterprise throughout the remainder of the 20th century used this Westley-MacLean (1957) model to conceptualize the study of news as involving investigation of various aspects of an essentially sequential process engaged in by information sources, journalists, and news consumers. Importantly, the newsroom practitioner occupied a central place: a gatekeeper who observed, selected,

encoded, and transmitted information (Shoemaker 1991), with a presumably discernible effect on those at the receiving end of the model's authoritative black arrows.

In the decades that followed initial conceptualizations of how communication worked, the media industry commanded considerable social, political, economic, and even moral power. A broadly favorable regulatory and fiscal environment, particularly though not exclusively in America, nurtured a period of mass media robustness, with a prosperous and competitive print sector and a technologically advanced but as yet unfragmented television one. Scholars sought to understand how the messages produced by such economically strong and socially pervasive entities were affecting consumers of those messages – which at the time meant just about everyone. In other words, they sought to understand the nature and strength of media effects.

In the United States, most media scholars during this time came from a social science tradition, or were taught and trained by mentors who did: sociologists interested in newsrooms, say, or political scientists interested in election coverage. They applied to their own objects of investigation the empirical tools on which American social science rests. A particular kind of evidence, the kind that can be observed and measured, generated a particular kind of theorizing – the kind that emerges from, then guides, observation and measurement.

Theories rooted in the scientific method and drawing on a transmission model of communication thus played a formative role in shaping views about the impact of media content in general and journalistic content in particular. The rest of this section considers research conducted primarily before the advent of digital media in relation to four seminal concepts, some still robust and others less so. There are of course many additional approaches, but these four are illustrative of useful and widely tested effects theories. One is concerned mainly with behavioral effects, another with affect or attitudinal effects, and a couple with cognitive effects related to what we think or know. They serve here to indicate the general premise and collective scope of effects theories, as well as their inherent limitations even in a traditional and relatively contained news environment. Those limitations have become even more troublesome in today's immersive, networked universe.

Behavioral effects: Spiral of silence theory

Noelle-Neumann's spiral of silence theory (1993) assigned the media powerful effects on behavior. She suggested that we respond to media coverage of a major event or issue by seeking to assess public opinion on the topic; that assessment then shapes our actions. If we believe our own views are not widely held, we tend to remain silent in order to avoid social isolation. By doing so, we contribute to public opinion as others perceive it, resulting in a spiraling effect in which seemingly dominant views gain even more ground while alternatives retreat still further. The news media not only are the original source of coverage but also are instrumental in shaping impressions about which views are dominant and which in decline; these impressions in turn inform our decisions about what we might, and might not, safely say publicly without becoming isolated from our social group (McQuail 2010; Severin and Tankard 2001).

The concept was tested repeatedly throughout the late 20th century, with mixed and culturally distinctive results (Scheufele and Moy 2000). The theorized effect turned out to be difficult to isolate and measure. A meta-analysis published in 1997 examined 17 studies, representing research in six countries and based on the collective responses of more than 9,500 participants; it found “the presence of a very small, but statistically significant, relationship between the degree to which a person believes others hold similar opinions and the willingness to express those opinions” (Glynn, Hayes, and Shanahan 1997, 452).

A sampling of U.S. studies published in the early 1990s, when there was considerable interest in testing the theory, highlights the difficulty of nailing down a consistent effect.

Salmon and Neuwirth (1990) found that people whose opinions on abortion were congruent with those in the national majority were somewhat more willing to speak to a stranger than were those holding minority views – but the local opinion climate did not seem to exert a similar behavioral effect, and other variables also seemed salient. Salwen and his colleagues (1994) found similar differences between perceptions of national coverage and opinions, and local coverage and opinions, in relation to willingness to speak out on whether English should become the official U.S. national language. More broadly, Price and Allen (1990) praised the theory for connecting public opinion to “collective communication and debate” (370) but noted its inherent limitations in conceptualizing the nature of social influence. They called for considerations of factors including the nature of conflict around an issue, the interaction of majorities and minorities over time, and the role of reference groups.

In short, it has proved difficult to connect a behavior – speaking out – with media coverage of issues and opinions about those issues. Too many additional variables seem to make a difference, even in a traditional and relatively bounded media environment.

Attitudinal effects: Cultivation theory

Cultivation theory, which lumps news together with other TV programming, posits that watching television affects people’s view of the world, typically leading to a heightened sense of risk and insecurity (Gerbner and Gross 1976). This attitudinal effects theory has been more widely tested than the spiral of silence and is among the most widely cited theories in the mass communications field (Bryant and Miron 2004). It also is among the most widely challenged. A sampling of work from the most intensive period of cultivation theory-testing (and defending) in the early 1980s indicates that its application requires a lot of caveats. The notion of “mainstreaming,” for instance, suggests that heavy television viewing leads to converged outlooks across social groups ... while “resonance” suggests nearly the opposite, with different attitudinal effects for different population sub-groups (Gerbner et al. 1980). Even the theory’s original proponents admitted that effects of television viewing are neither uniform nor universal. Other variables can and do intervene, and controlling for them makes the remaining effect so small as to be, critics argued, “trivial” (Hirsch 1981, 87). While a relationship between TV viewing and ideas about social reality can be shown to exist, proof of the direction of that relationship – which is the chicken and which the egg – is elusive (McQuail 2010). Nor have effects proved culturally consistent.

Nevertheless, the theory has retained conceptual heft for media scholars eager to put it through its paces. Over the years, their findings have added nuance and robustness to our understanding of how television, including TV news as well as entertainment programming, shapes our perceptions. Evidence has grown that while the effects of TV viewing in general may be negligible and hard to nail down, particular types of televised content do seem to have an impact on attitudes about such topics as racism, crime, violence, and victimization, as well as on feelings of alienation and anomia (Potter 1993). Bryant and his colleagues (1981) found that heavy viewing of action-adventure programs increased fearfulness and anxiety levels, especially if justice did not ultimately prevail in the viewed programs. Oliver and Armstrong (1995) found higher levels of racial prejudice, as well as punitive attitudes about crime, associated with frequent viewing and greater enjoyment of reality-based programming – though a cultivation effect did not hold for fictional programming. More recently, Kahlor and Eastin (2011) found that large amounts of rape-related content in soap operas and crime dramas “independently cultivate perceptions related to rape and sexual assault” (227), with viewers of those genres more likely to accept rape myths and overestimate false accusations.

Like the spiral of silence, cultivation theory posits a relatively powerful media effect that, on closer inspection, turns out to be neither uniform nor all that powerful. Even during a time when “television viewing” could be classified as an activity distinct from other media use, the impact of programming was difficult to isolate from the impact of other variables,

and contrary to the original proposition, content and viewer predispositions appeared to play significant roles.

Cognitive effects: Knowledge gap hypothesis and agenda-setting theory

Theories of behavioral and attitudinal effects, then, have proved fruitful in instigating tests and advancing knowledge about media effects, though in the end their value may lie more in spurring investigation than in illuminating the actual operation of what once seemed a simple linear process. Even in a traditional media environment, too many other potential variables muddy the picture of what impact a message has on the people receiving it. The media do affect behaviors and attitudes – but so do lots of other things, making many attempts to isolate effects more suggestive than definitive.

Cognitive effects theories, which tend to posit weaker or less direct effects, generally hold up better than other effects theories of the period, though of course what people think and know also is subject to myriad influences, some “mediated” and others not. Two cognitive effects theories directly tied to journalistic output have enjoyed considerable support over the years, particularly as applied to political information: the knowledge gap hypothesis, a relatively self-contained theory, and agenda-setting theory, which has sprouted numerous offshoots.

The knowledge gap hypothesis states that “as the infusion of mass media information into a social system increases, segments of the population with higher socioeconomic status tend to acquire this information at a faster rate than the lower status segments, so that the gap in knowledge between these segments tends to increase rather than decrease” (Tichenor, Donohue, and Olien 1970, 159-160). This initial proposition suggested effects are most evident in areas of general knowledge, such as public affairs and health information, rather than areas of niche interest. Subsequent research found support for the hypothesis though also contradictions of it. For instance, a 1976 study found (with caveats about other relevant factors) that watching televised presidential debates seemed to widen existing information gaps between knowledge-rich and knowledge-poor citizens (Bishop, Oldendick, and Tuchfarber 1978). Clear evidence of a health-related knowledge gap has been more elusive, perhaps because of nearly universal interest in health (Hwang and Jeong 2009).

Extended theory testing has indicated that, again, things turn out to be more complex than hypothesized and subject to intervening variables. Interpersonal communication is one such variable; early on, controversy surrounding a local issue was found to decrease the knowledge gap effect about that issue within the affected community (Donohue, Tichenor, and Olien 1975). Subsequent work further illuminated the role of powerful local groups, community pluralism, and promotional efforts, among other factors (Viswanath and Finnegan 1996), making it difficult to apply the theory to local issues. Individual motivation to acquire knowledge is significant, as Ettema and his colleagues (1983) demonstrated in their study of effects of a campaign to increase knowledge about cardiovascular health. Group membership, information functionality, and other factors also play a part in health knowledge acquisition (Viswanath et al. 1993). And effects not infrequently go in the opposition direction from the one predicted by the theory.

In short, as Gaziano (1983) detailed in an early but wide-ranging overview of knowledge gap studies, potential intervening variables are numerous and findings are all over the conceptual map; she concluded that increasing levels of media publicity may indeed reduce gaps, but other factors may be just as influential. A quarter century later, another meta-analysis confirmed that the knowledge gap effect was murkier than initially proposed (Hwang and Jeong 2009). As early as 1980, Dervin was on to one likely reason why. The knowledge gap hypothesis, she said, is based on the paradigm of communication as transmission: a source sends a message to a receiver. Long before the rise of the Internet, she

called for a conceptual shift to user-constructed and user-defined information, one that emphasized the user's need for sense making (Severin and Tankard 2001).

All the widely tested theories used as examples so far are relevant to journalism studies scholars, but none is as intertwined with issues of news production and consumption as agenda-setting theory, along with its offspring (such as second-level agenda setting) and its cousins, close or distant (such as framing or priming). The theory's roots lie in the mid-century observation that the press "may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about" (Cohen 1963, 13). This role of providing salience cues, particularly about political issues, was systematically explored by McCombs and Shaw (1972), whose seminal Chapel Hill study found that voters did indeed tend to share the media's overall definition of which issues were important in the 1968 presidential campaign. Over the next two decades alone, more than 220 agenda-setting studies were published (Rogers, Dearing, and Bregman 1993). The theory – which swelled to encompass guidance not only for what we should think about but also for how we should think about it (McCombs and Shaw 1993) – was applied to a host of interesting questions, from the nature of the contingent conditions that might enhance or limit the effect, to what sort of standards people use in making judgments, to just how "the media" formulate an agenda in the first place.

Agenda setting and its progeny put forward more modest claims about the impact of media messages than do such powerful effects theories as spiral of silence or cultivation, and this family of theories has fared relatively well under exhaustive testing, across time and in diverse national contexts. It seems the media can indeed make certain issues or aspects of issues easier for people to recall, thus having an effect on public attitudes, particularly about candidates and political matters (Scheufele and Tewksbury 2007). Agenda-setting effects have been identified in virtually every U.S. election since the 1970s, and the implications for public perception and public policy are significant and far-reaching. The media have been shown to affect how people think about everything from other nations in general (Wanta, Golan, and Lee 2004) to domestic civil rights in particular (Winter and Eyal 1981), along with a large range of other social issues.

This is not to say, however, that the effects have been either uniform or unambiguous. On the contrary, political agenda setting by the media turns out to be contingent on a host of conditions. These include the kinds of issues covered, the types of media outlets involved, and the sort of coverage they provide (Walgrave and Van Aelst 2006), as well as the salience of issues to a given audience (Erbring, Goldenberg, and Miller 1980) and the degree of individual motivation and engagement (McLeod, Becker, and Byrnes 1974). The effect seems strongest for "relatively unobtrusive issues that do not directly impact the lives of the majority of the public, such as foreign policy and government scandal" (Weaver, McCombs, and Shaw 2008, 258).

Ambiguity thus saturates even what may be our most robust media effects theory. Of course, such is the nature of theories: Their strength lies not only in their ability to provide answers but also, perhaps primarily, in their ability to stimulate questions. That is how knowledge expands and fresh insights are gained – and new questions can be raised. The point here is that the many caveats are indicative of a challenge as well as an opportunity. Mass media effects that may have seemed obvious turned out to be exceptionally difficult to extricate from a great many other variables, even during a time when we could more or less pinpoint just what we meant by "mass media." We no longer can.

Limitations of Effects Theories in a Digital Age

To recap: Media effects theories have been crucial in flagging questions that merited scholarly attention, especially when mass media, including purveyors of news, consisted mostly of discrete entities engaged in a process that involved a one-to-many transmission of

information. Effects theories benefit from the presence of a distinct and identifiable communicator, communications act or product, channel, and recipient, as well as an effect that also is identifiable in some way. All those pieces are harder to precisely define and assess than they sound. And they are harder today than they were yesterday.

These limitations have led many mass communications scholars to explore more holistic alternatives. A “ritual” view, for instance, conceives communication as “a process through which a shared culture is created, mediated and transformed” (Carey 1989, 43), leading to a much broader consideration of the relationship between a society and its media. Similarly, a mediation orientation emphasizes relationships and interactions among various forces in the communication process (McQuail 2010; Silverstone 2005). This approach has enriched understanding of political communication (Hayes, Preacher, and Myers 2011), from the ways in which schools and peer networks affect political socialization (Lee, Shah, and McLeod 2013) to the influence of watching late-night political comedy (Landreville, Holbert, and LaMarre 2010). Although it has not been widely adopted by journalism studies scholars (with some notable exceptions; see Chouliaraki 2013), mediation also has been valuable in exploring what Lievrouw (2009) describes as “the continuous interplay of technology development, use and breakdown; communicative action; social circumstances; and shared meaning” (237). And it has suggested longer-term and larger-scale relationships as well, leading to the formulation of “mediatization” as a way of considering “whether and how structural changes between the media and various social institutions or cultural phenomena come to influence human imaginations, relationships and interactions” (Hjarvard 2013, 3).

A different approach to information processing, exploring indirect rather than direct effects, has involved consideration of physiological and psychophysiological variables in understanding how humans communicate, facilitating researchers’ attempts to track the interaction between message features and our responses to them (Lang, Potter, and Bolls 2009). Scholars have identified responses to negative political advertising (Bradley, Angelini, and Lee 2007), HIV/AIDS public service announcements (Zhang et al. 2015), and entertainment programming (Rubenking and Lang 2014), among other stimuli. Here, too, there has been little pick-up among scholars focused on journalists or journalism, again with some exceptions (see Lynch and McGoldrick 2015; Soroka and McAdams 2015).

The examples could continue, but the message is this: While scholars in other branches of communication studies have sought increasingly multi-faceted understandings of how humans deal with information, much journalism scholarship has continued to focus on components of a “transmission” process identified 50 years ago – the senders and receivers of a message, along with the nature of the message itself. Yet the attributes of digital media make identification and analysis of these discretely measurable variables exceptionally difficult. Contemporary online journalism is, among other things:

* *Immersive*. Around the time our somewhat prosaic views of the communications process were taking shape, the philosopher Ludwig Wittgenstein (1953) was trying to explain the impossibility of separating language from meaning, from action, from existence itself. His point has become steadily clearer as media forms have evolved in the intervening years. The “media” today constitute a communicative space in which we live constantly rather than a separate thing that we use occasionally and whose impact we therefore can reasonably hope to isolate and measure. As Deuze (2012) writes in his introductory overview of *Media Life*:

Media are not just types of technology and chunks of content occupying the world around us – a view that considers media as external agents affecting us in a myriad of ways. If anything, today the uses and appropriations of media can be seen as fused with *everything* people do, *everywhere* people are ... We can only *imagine* a life outside of media (x, *emphasis in original*).

* *Interconnected.* Yes, linear models do include dotted lines indicating feedback from message “receivers” to “senders.” They therefore posit a (limited) amount of communication that swims upstream – from, rather than to, media audiences. But that conceptualization, typically with a steadfast gatekeeper directing the flow of traffic at the model’s core, is laughably inadequate in today’s interactive world. Producers and consumers of all manner of mediated content, including “news,” are interchangeable (Bruns 2008), with any given individual filling both roles all but simultaneously. Moreover, in a structure that seemed fantastical at mid-century (Bush 1945) and remained just barely conceivable a generation ago to anyone not, literally, a rocket scientist (Berners-Lee 1999), every one of those communicators is linked to every other one – more than 3 billion and growing – in an immensely complex global network. Although a majority of our interactions and exchanges are with a bounded number of messages and message creators, the potential always exists to create a novel connection with any one of the billions of perpetually available options.

* *Individualized.* Yet at the same time, our mediated environment is unique to each of us to an utterly unprecedented degree. “Mass media” outlets reach more people than ever thanks to the Internet, and evidence suggests that personal information networks within a society do overlap, with clusters of attention around established brands, including media ones (Webster and Ksiazek 2012). But in comparison with the pre-Internet era, those brands are a much-diminished fraction of our daily “news” diet. Each of those 3 billion online users likely puts the even-larger billions of available pieces together in a different way, with the number of possible combinations stretching nearly to infinity.

* *Iterative.* Traditional media are finite and definitive. Once the newspaper is published, it becomes a self-contained and unchangeable product, and tomorrow’s paper will be a wholly new (self-contained and unchangeable) product. Once the news broadcast is over, it’s over. Not so with online news, which even before the rise of social media had become sites of ongoing conversation and contestation (Boczkowski 2004). Online messages are eminently fluid constructions: continually changing, perpetually expandable, always open to connection or combination with something – anything – else (Singer 2010).

* *Instantaneous.* From nearly the first moment they laid eyes on the Internet, journalists have been attuned to (and worried about) its insatiable need for speed. They have been right. Immediacy is a core attribute of digital information technologies. This “speed fetishism” (Correia 2012, 109) creates considerable angst for journalists concerned about accuracy, as well as other less predictable effects such as an increase in the homogeneity of news products (Boczkowski 2010; Phillips 2012). More broadly, the continual flood of new content makes it hard to assess the impact of more than the minuscule percentage of messages fished out of the current and caught, briefly, in the net of collective attention.

These “Five I’s” do not constitute a comprehensive list of the characteristics of our contemporary media world. But even a partial litany of challenges to effects theories in a digital age highlights the inadequacy of a set of theories premised on distinct communication constituents producing messages whose effects can be isolated, observed, and measured. In a digital news environment, it is difficult if not impossible to focus exclusively on any of the theorized components. How are we to understand the impact of any news item when message senders and recipients are interchangeable; when messages in disparate forms continuously arrive and are then instantly reshaped and redistributed in myriad ways by myriad people and programs; and when everyone’s information diet is wildly diverse and uniquely personal?

New Directions for Old Theories

Although effects theories struggle to hold up their end of the explanatory bargain when applied to a digital news environment, they also point in an interesting direction:

toward a more relationship-oriented approach. A few examples, drawing on digital-age work with the theories outlined above, illustrate the problem but also hint at a solution:

* *Spiral of silence*. If the effect exists online, it is painfully hard to discern despite well-constructed attempts. McDevitt and his colleagues (2003), intrigued by the contradiction between the theory's portrayal of "cowering and muted citizens" (454) and the ample evidence of uninhibited online discussion, sought to test both the existence and strength of the effect. They found only limited support for the theory; subjects in the minority on the abortion issue tended to speak up more, not less, than those in the majority. They also found a "spiral of moderation" effect, a tendency away from the expression of extreme views. In other words, the social nature of the online world seemed to have an ameliorating effect on behavior predicted by the theory. A few years later, Ho and McLeod (2008) found that respondents were significantly less willing to express their views about the legalization of same-sex marriage in face-to-face discussion than they were in an online chat room, again suggesting computer-mediated discussion moderates the impact of fear of isolation on willingness to speak out. Instead, "the reduced social cues and anonymity in the [online] condition" might "reduce status consciousness and inequality" (203). And Schulz and Roessler (2012), in a theoretical consideration of the spiral of silence in an online world, highlighted the hybridity of the Internet, a space where "social and mass media communication coincide" and, together, greatly expand available choices of information (350). Although they believe the theory remains useful, they caution that it "faces severe limitations because the climate of opinion is perceived very subjectively" (359).

* *Cultivation*. In some ways, cultivation theory is well-suited to online media; indeed, many of the challenges it has faced over the years stem from its tough-to-test premise of immersion in television rather than selective viewing (Morgan, Shanahan, and Signorielli 2009) and its view that messages are systems rather than discrete variables (Morgan and Shanahan 2010). Yet it is a theory developed to explain the effects of a specific medium, television, which itself is "temporary rather than timeless, particular rather than universal, a historically and culturally specific phenomenon" (Livingstone 2004, 76). Although champions of the theory have declared its continuing relevance because TV viewership remains high (Morgan and Shanahan 2010), few have even tried to apply cultivation directly to the Internet. Arguably, Putnam (2000) and those who built on his work take their cue from cultivation theory in claiming that increased use of digital technologies decreases trust in other people and in social institutions, along with decreasing participation in society; however, empirical testing suggests the presumed online impact on socializing with others is "limited or nonexistent" (Vergeer and Pelzer 2009, 202). Particularly in the early days of the Internet, the general connection between its use and social capital, social trust, and well-being were repeatedly tested. No cultivation effect was ever identified; many findings suggested minimal and even mildly positive impacts.

* *Knowledge gap*. This theory did yield clearer results, but mainly in the context of a "digital divide" between those with and without Internet access. As digital technologies have become more widely available within and across societies, attention has shifted from access to use – in particular, what people of different socioeconomic status do with their online access. Wei and Hindman (2011), among others, found Americans with higher SES were more likely to use the Internet for informational purposes than their lower SES counterparts, accentuating and extending gaps in political knowledge; Bonfadelli's (2002) earlier findings in Switzerland were similar. In general, scholars have found that gaps persist in connection with "people's ability to improve their human, financial, political, social and cultural capital" (Hargittai and Hinnant 2008, 615) through the kinds of activities they pursue online.

* *Agenda setting et al.* Popularity of the agenda-setting concept has hardly abated in the digital age. By the mid-2000s, it had amassed more than half a million citations (Bennett

and Iyengar 2008). But a number of those citations, particularly in the digital era, come from scholars demonstrating challenges to agenda-setting theory as initially proposed. For example, a study of political blogs in the mid-2000s suggested that the agenda-setting power of traditional media was “no longer universal or singular” as those media became “just one force among many competing influences” (Meraz 2009, 701), a finding reinforced in a subsequent study of networked political environments (Meraz 2011). More broadly, the nature of the Internet means citizens can, at least in theory, participate directly in setting the public agenda, both through production of their own content and “by rendering the agenda-setting processes of established professional media outlets radically provisional, malleable and susceptible to critical intervention” (Goode 2009, 7).

If our tried-and-more-or-less-true effects theories are so problematically stretched in an online world to which they are fundamentally ill-suited, what are our alternatives? Some, from a ritual model to evolving ideas about “mediatization,” are already thriving. Within the sub-discipline of journalism studies, other scholars also have begun to address this question in intriguing ways. For instance, contributors to a recent issue of *Digital Journalism*, devoted to “theories of journalism in a digital age,” theorized numerous aspects of contemporary communication that in the past were insufficiently conceptualized or even overlooked. They considered “effects” from novel perspectives that incorporated geographic space (Weiss 2015), the means by which information circulates around and through a network (Bodker 2015), and the interplay of humans and technology (Lewis and Westlund 2015). Here and elsewhere, actor network theory (Domingo, Masip, and Meijer 2015; Latour 2007; Primo and Zago 2015), which treats objects – explicitly including technological ones – as actors within social networks, has been posited as useful in making sense of journalism in the 21st century.

The concluding section of this article adds to the discussion by linking such concepts more directly with effects theories. The suggestion here is that we still need effects theories. But they must be able to encompass notions of connectedness and relationship – and perhaps nowhere are the possibilities more intriguing than in the field of journalism studies.

Relationship Effects

Relationships between journalists and “audiences” were included in the 1957 Westley-MacLean model, though given a subsidiary, dotted-line notation as feedback loops. And they are fundamental in other disciplines foundational to mass communications not only in the social sciences but also in the humanities, which intimately link communication and culture (Carey 1989). An immersive media universe, whose emergence coincides with the recognition of journalism studies as distinct from the study of “mass communication,” invites melding the linear effects tradition and the intellectually rich understanding of how humans (including journalists) interact and create social and cultural connections..

Much contemporary work already points in this direction, particularly voluminous scholarship on journalists’ use of and attitudes toward social media – and of blogs and other “user-generated content” before that. But much of that work focuses on the effects of these inherently mutual formats on journalists themselves; that is, they are practitioner studies. How do journalists use Twitter (Lasorsa, Lewis, and Holton 2012; Vis 2013)? How do they see user contributions affecting what happens inside the newsroom (Hermida and Thurman 2008; Lewis, Kaufhold, and Lasorsa 2010; Paulussen and Ugille 2008)? How do these contributions challenge journalists’ ethical practices and normative constructs (Singer and Ashman 2009)?

Other scholars already have persuasively argued for a more holistic and culturally situated consideration of journalism studies (Hanitzsch 2007; Zelizer 2004). Indeed, the call here echoes Robinson’s (2011) consideration of “journalism as process”; she too sees a compelling need to consider news not as a discrete product but as a shared, distributed action with multiple authors engaged in shifting relationships. There also have been many

invitations for more user-centric approaches, a renewed emphasis on media audiences as significant and worthy subjects of study (Livingstone 2004). The increased attention to actor-network theory highlighted above is another aspect of this turn to considerations of mutual and interlinked impacts and effects in the context of extended agency.

But the concept of relationships has not always been explicit in this work, nor has the idea been adequately connected to the particular characteristics of the media environment described above. These digital traits open up new opportunities to apply our extensive understanding of media effects to the contemporary journalistic environment. What are the effects of immersion, interconnectedness, role interchangeability, and the rest on journalists and on journalism – journalism understood as a fluid, iterative process in which “messages” are ubiquitous and multi-directional, and the roles of “senders” and “receivers” are perpetually reciprocal? What are the effects of a wholly non-linear media system?

This involves more than the usual process of paradigm repair. It involves more inherently triangulated methodological approaches – qualitative and quantitative together, empirical and culturally grounded. It involves broader and deeper engagement with insights from other disciplines. Most important, it involves an acceptance – difficult for scholars no less than news practitioners – that audiences and journalists have become inextricably intertwined. Any “media effects” theory must deal with them intrinsically and even simultaneously, given the multidirectional and immersive nature of digital content flows.

Practitioners are realizing the need to shift their self-perception, from essentially egoistic (I will relay an objective truth; I will maintain my independence) to essentially relational (I will be accountable to others; I will share what I know and how I know it; I will exchange information, not just provide it). So too must researchers shift their gaze from linear causal or correlative effects to effects that result from intricate, fluid interactions among inordinately diverse participants. In journalism studies, that suggests continuing along the trajectory away from seeing journalists as gatekeepers (Shoemaker and Vos 2009) and toward seeing them as participants in an unbounded and perpetually ongoing communicative endeavor (Hjarvard 2013). We must shift from seeing journalistic relationships as finite, discrete, and readily depicted by unidirectional black arrows to seeing them as ubiquitous, multi-directional, and continually in dotted-line flux.

That is a lot to try to conceptualize, let alone model. But the only viable starting place is to think of mediated effects as mutual and of connections as crucial to making sense of those effects. We have seen that “media effects” have always been hard to measure, and relationship effects in a digital world will be harder still. Almost certainly, such measurement will be impossible without conceptual understandings from fields that foreground interconnectivity, for instance in the form of network structures (from engineering to biology to computer science), group dynamics (sociology, management studies) and the social aspects of identity formation (social psychology). The fields themselves have long informed media effects scholarship, as even the handful of theories explored here demonstrate. Now we must work harder to make this interdisciplinarity integral to our work as journalism studies scholars (Zelizer 2004), and we must bring its insights to bear on our understanding of both practitioners and audiences.

Steensen and Ahva (2015) highlight terms already in use to articulate this goal: news as an “ecosystem” (Anderson 2013), a “landscape” (Peters and Broersma 2013), an “ambient” environment (Hermida 2010), a “network” (Heinrich 2011; Russell 2013). This impetus toward the incorporation of complexity rather than the isolation of transmission effects pervades ongoing efforts to engage with the contemporary nature of media in general and journalism in particular. Needed now are fresh empirical tests to enable theory-building.

Nearly two decades ago, Melvin DeFleur querulously asked: “Where have all the milestones gone?” During a “golden age” that extended into the 1980s, he said, studies

“yielded most of the theoretical perspectives explaining the influences on individuals and society that are at the heart of our understanding of the process and effects of mass communication” (DeFleur 1998, 97). Since then, he said ... not so much. He offered a variety of reasons, from the rise of qualitative and critical approaches in media scholarship to changes in the nature of academic work. He did not, however, address changes in the nature of “mass communication” itself.

It is time we did.

References

- Anderson, C. W. 2013. *Rebuilding the News: Metropolitan Journalism in the Digital Age*. Philadelphia, PA: Temple University Press.
- Bennett, W. Lance, and Shanto Iyengar. 2008. "A New Era of Minimal Effects? The Changing Foundations of Political Communication." *Journal of Communication* 58 (4): 707-731.
- Bernays, Edward L. 1928. *Propaganda*. New York: Ig Publishing.
- Berners-Lee, Tim. 1999. *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by Its Inventor*. New York: Harper Collins.
- Bishop, George F., Robert W. Oldendick, and Alfred J. Tuchfarber. 1978. "Debate Watching and the Acquisition of Political Knowledge." *Journal of Communication* 28 (4): 99-113.
- Boczkowski, Pablo J. 2004. *Digitizing the News: Innovation in Online Newspapers*. Cambridge, MA: MIT Press.
- Boczkowski, Pablo J. 2010. *News at Work: Imitation in an Age of Information Abundance*. Chicago: University of Chicago Press.
- Bodker, Henrik. 2015. "Journalism as Cultures of Circulation." *Digital Journalism* 3 (1): 101-115.
- Bonfadelli, Heinz. 2002. "The Internet and Knowledge Gaps: A Theoretical and Empirical Investigation." *European Journal of Communication* 17 (1): 65-84.
- Bradley, Samuel D., James R. Angelini, and Sungkyoung Lee. 2007. "Psychophysiological and Memory Effects of Negative Political Ads: Aversive, Arousing, and Well-Remembered." *Journal of Advertising* 36 (4): 115-127.
- Bruns, Axel. 2008. *Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage*. New York: Peter Lang.
- Bryant, Jennings, Rodney A. Carveth, and Dan Brown. 1981. "Television Viewing and Anxiety: An Experimental Examination." *Journal of Communication* 31 (1): 106-119.
- Bryant, Jennings, and Dorina Miron. 2004. "Theory and Research in Mass Communication." *Journal of Communication* 54 (4): 662-704.
- Bush, Vannevar. 1945. "As We May Think." *Atlantic Monthly*, July.
<http://www.theatlantic.com/magazine/archive/1945/07/as-we-may-think/303881/>
- Carey, James W. 1989. *Communication as Culture: Essays on Media and Society*. London: Unwin Hyman.
- Chouliaraki, Lilie. 2013. "Re-mediation, Inter-mediation, Trans-mediation: The Cosmopolitan Trajectories of Convergent Journalism." *Journalism Studies* 14 (2): 267-283.

Cohen, Bernard Cecil. 1963. *The Press and Foreign Policy*. Princeton, NJ: Princeton University Press.

Correia, João Carlos. 2012. "Online Journalism and Civic Life." In *The Handbook of Global Online Journalism*, edited by Eugenia Siapera and Andreas Veglis, 101-118. Malden, MA: Wiley-Blackwell.

DeFleur, Melvin L. 1998. "Where Have All the Milestones Gone? The Decline of Significant Research on the Process and Effects of Mass Communication." *Mass Communication & Society* 1 (1/2): 85-98.

Dervin, Brenda. 1980. "Communication Gaps and Inequities: Moving toward a Reconceptualization." *Progress in Communication Sciences* 2: 73-112.

Deuze, Mark. 2012. *Media Life*. Malden, MA: Polity.

Domingo, David, Pere Masip, and Irene Costera Meijer. 2015. "Tracing Digital News Networks: Towards an Integrated Framework of the Dynamics of News Production, Circulation and Use." *Digital Journalism* 3 (1): 53-67.

Donohue, George A., Phillip J. Tichenor, and Clarice N. Olien. 1975. "Mass Media and the Knowledge Gap: A Hypothesis Reconsidered." *Communication Research* 2 (1): 3-23.

Erbring, Lutz, Edie N. Goldenberg, and Arthur H. Miller. 1980. "Front-page News and Real-world Cues: A New Look at Agenda-setting by the Media." *American Journal of Political Science* 24 (1): 16-49.

Ettema, James S., James W. Brown, and Russell V. Luepker. 1983. "Knowledge Gap Effects in a Health Information Campaign." *Public Opinion Quarterly* 47 (4): 516-527.

Gaziano, Cecilie. 1983. "The Knowledge Gap: An Analytical Review of Media Effects." *Communication Research* 10 (4): 447-486.

Gerbner, George, and Larry Gross. 1976. "Living with Television: The Violence Profile." *Journal of Communication* 26 (2): 172-199.

Gerbner, George, Larry Gross, Michael Morgan, and Nancy Signorielli. 1980. "The 'Mainstreaming' of America: Violence Profile No. 11." *Journal of Communication* 30 (3): 10-29.

Glynn, Carroll J., Andrew F. Hayes, and James Shanahan. 1997. "Perceived Support for One's Opinions and Willingness To Speak Out: A Meta-analysis of Survey Studies on the 'Spiral of Silence.'" *Public Opinion Quarterly* 61 (3): 452-463.

Goode, Luke. 2009. "Social News, Citizen Journalism and Democracy." *New Media & Society* 11 (8): 1-19.

Hanitzsch, Thomas. 2007. "Deconstructing Journalism Culture: Toward a Universal Theory." *Communication Theory* 17 (4): 367-385.

Hargittai, Eszter, and Amanda Hinnant. 2008. "Digital Inequality: Differences in Young Adults' Use of the Internet." *Communication Research* 35 (5): 602-621.

Hayes, Andrew F., Kris J. Preacher, and Teresa A. Myers. 2011. "Mediation and the Estimation of Indirect Effects in Political Communication Research." In *The Sourcebook for Political Communication Research: Methods, Measures and Analytical Techniques*, edited by Erik P. Bucy and R. Lance Holbert, 434-465. New York: Routledge.

Heinrich, Ansgard. 2011. *Network Journalism: Journalistic Practice in Interactive Spheres*. New York: Routledge

Hermida, Alfred. 2010. "Twittering the News: The Emergence of Ambient Journalism." *Journalism Practice* 4 (3): 297-308.

Hermida, Alfred, and Neil Thurman. 2008. "A Clash of Cultures: The Integration of User-generated Content within Professional Journalistic Frameworks at British Newspaper Websites." *Journalism Practice* 2 (3): 343-356.

Hirsch, Paul M. 1981. "Distinguishing Good Speculation from Bad Theory: Rejoinder to Gerbner et al." *Communication Research* 8 (1): 73-95.

Hjarvard, Stig. 2013. *The Mediatization of Culture and Society*. New York: Routledge.

Ho, Shirley S., and Douglas M. McLeod. 2008. "Social-psychological Influences on Opinion Expression in Face-to-face and Computer-mediated Communication." *Communication Research* 35 (2): 190-207.

Hwang, Yoon, and Se-Hoon Jeong. 2009. "Revisiting the Knowledge Gap Hypothesis: A Meta-analysis of Thirty-five Years of Research." *Journalism & Mass Communication Quarterly* 86 (3): 513-532.

Kahlor, LeeAnn, and Matthew S. Eastin. 2011. "Television's Role in the Culture of Violence toward Women: A Study of Television Viewing and the Cultivation of Rape Myth Acceptance in the United States." *Journal of Broadcasting & Electronic Media* 55 (2): 215-231.

Landreville, Kristen D., R. Lance Holbert, and Heather L. LaMarre. 2010. "The Influence of Late-night TV Comedy Viewing on Political Talk: A Moderated-mediation Model." *International Journal of Press/Politics* 15 (4): 482-498.

Lang, Annie, Robert F. Potter, and Paul Bolls. 2009. "Where Psychophysiology Meets the Media: Taking the Effects out of Mass Media Research." In *Media Effects: Advances in Theory and Research* (3rd ed.), edited by Jennings Bryant and Mary Beth Oliver, 185-206. New York: Routledge.

Lasorsa, Dominic L., Seth C. Lewis, and Avery E. Holton. 2012. "Normalizing Twitter: Journalism Practice in an Emerging Communication Space." *Journalism Studies* 13 (1): 19-36.

Lasswell, Harold D. 1948. "The Structure and Function of Communication in Society." In *The Communication of Ideas*, edited by Lyman Bryson, 37-51. New York: Institute for Religious and Social Studies.

Latour, Bruno. 2007. *Reassembling the Social: An Introduction to Actor-network Theory*. Oxford: Oxford University Press.

Lee, Nam-Jin, Dhavan V. Shah, and Jack M. McLeod. 2013. "Processes of Political Socialization: A Communication Mediation Approach to Youth Civic Engagement." *Communication Research* 40 (5): 669-697.

Lewis, Seth C., Kelly Kaufhold, and Dominic L. Lasorsa. 2010. "Thinking about Citizen Journalism: The Philosophical and Practical Challenges of User-generated Content for Community Newspapers." *Journalism Practice* 4 (2): 163-179.

Lewis, Seth C., and Oscar Westlund. 2015. "Actors, Actants, Audiences, and Activities in Cross-media News Work: A Matrix and a Research Agenda." *Digital Journalism* 3 (1): 19-37.

Lievrouw, Leah A. 2009. "Technology in/as Applied Communication Research." In *Routledge Handbook of Applied Communication Research*, edited by Lawrence R. Frey and Kenneth N. Cissna, 233-256. New York: Routledge.

Livingstone, Sonia. 2004. "The Challenge of Changing Audiences: Or, What Is the Audience Researcher To Do in the Age of the Internet?" *European Journal of Communication* 19 (1): 75-86.

Lynch, Jake, and Annabel McGoldrick. 2015. "Psychophysiological Audience Responses to War Journalism and Peace Journalism." *Global Media and Communication* 11 (3): 201-217.

McCombs, Maxwell E., and Donald L. Shaw. 1972. "The Agenda-setting Function of Mass Media." *Public Opinion Quarterly* 36 (2): 176-187.

McCombs, Maxwell E., and Donald L. Shaw. 1993. "The Evolution of Agenda-setting Research: Twenty-five Years in the Marketplace of Ideas." *Journal of Communication* 43 (2): 58-67.

McDevitt, Michael, Spiro Kioulos, and Karin Wahl-Jorgensen. 2003. "Spiral of Moderation: Opinion Expression in Computer-Mediated Discussion." *International Journal of Public Opinion Research* 15 (4): 454-470.

McLeod, Jack M., Lee B. Becker, and James E. Byrnes. 1974. "Another Look at the Agenda-setting Function of the Press." *Communication Research* 1 (2): 131-166.

McQuail, Denis. 2010. *McQuail's Mass Communication Theory* (6th ed.). London: Sage.

Meraz, Sharon. 2009. "Is There an Elite Hold? Traditional Media to Social Media Agenda Setting Influence in Blog Networks." *Journal of Computer-Mediated Communication* 14 (3): 682-707.

- Meraz, Sharon. 2011. "The Fight for 'How To Think': Traditional Media, Social Networks, and Issue Interpretation." *Journalism* 12 (1): 107-127.
- Morgan, Michael, and James Shanahan. 2010. "The State of Cultivation." *Journal of Broadcasting & Electronic Media* 54 (2): 337-355.
- Morgan, Michael, James Shanahan, and Nancy Signorielli. 2009. "Growing up with Television: Cultivation Processes." In *Media Effects: Advances in Theory and Research* (3rd ed.), edited by Jennings Bryant and Mary Beth Oliver, 34-49. New York: Routledge.
- Noelle-Neumann, Elisabeth. 1993. *The Spiral of Silence: Public Opinion – Our Social Skin*. Chicago: University of Chicago Press.
- Oliver, Mary Beth, and G. Blake Armstrong. 1995. "Predictors of Viewing and Enjoyment of Reality-based and Fictional Crime Shows." *Journalism & Mass Communication Quarterly* 72 (3): 559-570.
- Paulussen, Steve, and Pieter Ugille. 2008. "User Generated Content in the Newsroom: Professional and Organisational Constraints on Participatory Journalism." *Westminster Papers in Communication and Culture* 5 (2): 24-41
- Peters, Chris, and Marcel Jeroen Broersma. 2013. *Rethinking Journalism: Trust and Participation in Transformed News Landscapes*. New York: Routledge.
- Phillips, Angela. 2012. "Faster and Shallower: Homogenisation, Cannibalisation and the Death of Reporting." In *Changing Journalism*, edited by Peter Lee-Wright, Angela Phillips, and Tamara Witschge, 81-98. London: Routledge.
- Potter, W. James. 1993. "Cultivation Theory and Research: A Conceptual Critique." *Human Communication Research* 19 (4): 564-601.
- Price, Vincent, and Scott Allen. 1990. "Opinion Spirals, Silent and Otherwise: Applying Small-group Research to Public Opinion Phenomena." *Communication Research* 17 (3): 369-392.
- Primo, Alex, and Gabriela Zago. 2015. "Who and What Do Journalism? An Actor-network Perspective." *Digital Journalism* 3 (1): 38-52.
- Putnam, Robert D. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.
- Robinson, Sue. 2011. "'Journalism as Process': The Organizational Implications of Participatory Online News." *Journalism & Communication Monographs* 13 (2): 137-210.
- Rogers, Everett M., James W. Dearing, and Dorine Bregman. 1993. "The Anatomy of Agenda-setting Research." *Journal of Communication* 43 (2): 68-84.
- Rubeking, Bridget, and Annie Lang. 2014. "Captivated and Grossed Out: An Examination of Processing Core and Sociomoral Disgusts in Entertainment Media." *Journal of Communication* 64 (3): 543-565.

- Russell, Adrienne. 2013. *Networked: A Contemporary History of News in Transition*. Cambridge: Polity Press.
- Salmon, Charles T., and Kurt Neuwirth. 1990. "Perceptions of Opinion 'Climates' and Willingness To Discuss the Issue of Abortion." *Journalism Quarterly* 67 (3): 567-577.
- Salwen, Michael B., Carolyn Lin, and Frances R. Matera. 1994. "Willingness to Discuss 'Official English': A Test of Three Communities." *Journalism & Mass Communication Quarterly* 71 (2): 282-290.
- Scheufele, Dietram A., and Patricia Moy. 2000. "Twenty-five Years of the Spiral of Silence: A Conceptual Review and Empirical Outlook." *International Journal of Public Opinion Research* 12 (1): 3-28.
- Scheufele, Dietram A., and David Tewksbury. 2007. "Framing, Agenda Setting and Priming: The Evolution of Three Media Effects Models." *Journal of Communication* 57 (1): 9-20.
- Schulz, Anne, and Patrick Roessler. 2012. "The Spiral of Silence and the Internet: Selection of Online Content and the Perception of the Public Opinion Climate in Computer-mediated Communication Environments." *International Journal of Public Opinion Research* 24 (3): 346-367.
- Severin, Werner J., and James W. Tankard Jr. 2001. *Communication Theories: Origins, Methods and Uses in the Mass Media* (5th ed.). New York: Longman.
- Shannon, Claude E., and Warren Weaver. 1949. *The Mathematical Theory of Communication*. Urbana: University of Illinois Press.
- Shoemaker, Pamela J. 1991. *Gatekeeping*. Thousand Oaks, CA: Sage.
- Shoemaker, Pamela J., and Timothy Vos. 2009. *Gatekeeping Theory*. New York: Routledge.
- Silverstone, Roger. 2005. "The Sociology of Mediation and Communication." In *The Sage Handbook of Sociology*, edited by Craig Calhoun, Chris Rojek, and Bryan S. Turner, 188-207. Thousand Oaks, CA: Sage.
- Singer, Jane B. 2010. "Norms and the Network: Journalistic Ethics in a Shared Media Space." In *Journalism Ethics: A Philosophical Approach*, edited by Christopher Meyers, 117-129. New York: Oxford University Press.
- Singer, Jane B., and Ian Ashman. 2009. "'Comment is Free, but Facts Are Sacred': User-Generated Content and Ethical Constructs at the *Guardian*." *Journal of Mass Media Ethics* 24 (1): 3-21.
- Soroka, Stuart, and Stephen McAdams. 2015. "News, Politics, and Negativity." *Political Communication* 32 (1): 1-22.
- Steen, Steen, and Laura Ahva. 2015. "Theories of Journalism in a Digital Age: An Exploration and Introduction." *Digital Journalism* 3 (1): 1-18.

Tichenor, Phillip J., George A. Donohue, and Clarice N. Olien. 1970. "Mass Media Flow and Differential Growth in Knowledge." *Public Opinion Quarterly* 34 (2): 159-170.

Vergeer, Maurice, and Ben Pelzer. 2009. "Consequences of Media and Internet Use for Offline and Online Network Capital and Well-being: A Causal Model Approach." *Journal of Computer-Mediated Communication* 15 (1): 189-210.

Vis, Farida. 2013. "Twitter as a Reporting Tool for Breaking News: Journalists Tweeting the 2011 UK Riots." *Digital Journalism* 1 (1): 27-47.

Viswanath, K., and John R. Finnegan Jr. 1996. "The Knowledge Gap Hypothesis: Twenty-five Years Later." In *Communication Yearbook 19*, edited by Brant R. Burleson, 187-227. New York: Routledge.

Viswanath, Kasisomayajula, Emily Kahn, John R. Finnegan Jr., James Hertog, and John D. Potter. 1993. "Motivation and the Knowledge Gap: Effects of a Campaign To Reduce Diet-related Cancer Risk." *Communication Research* 20 (4): 546-563.

Wahl-Jorgensen, Karin, and Thomas Hanitzsch. 2009. "Introduction: On Why and How We Should Do Journalism Studies." In *The Handbook of Journalism Studies*, edited by Karin Wahl-Jorgensen and Thomas Hanitzsch, 3-16. New York: Routledge.

Walgrave, Stefaan, and Peter Van Aelst. 2006. "The Contingency of the Mass Media's Political Agenda Setting Power: Toward a Preliminary Theory." *Journal of Communication* 56 (1): 88-109.

Wanta, Wayne, Guy Golan, and Cheolhan Lee. 2004. "Agenda Setting and International News: Media Influence on Public Perceptions of Foreign Nations." *Journalism & Mass Communication Quarterly* 81 (2): 364-377.

Weaver, David, Maxwell McCombs, and Donald L. Shaw. 2008. "Agenda-setting Research: Issues, Attributes, and Influences." In *Handbook of Political Communication Research*, edited by Lynda Lee Kaid, 257-282. Mahwah, NJ: Lawrence Erlbaum Associates.

Webster, James G., and Thomas B. Ksiazek. 2012. "The Dynamics of Audience Fragmentation: Public Attention in an Age of Digital Media." *Journal of Communication* 62 (1): 39-56.

Wei, Lu, and Douglas Blanks Hindman. 2011. "Does the Digital Divide Matter More? Comparing the Effects of New Media and Old Media Use on the Education-based Knowledge Gap." *Mass Communication & Society* 14 (2): 216-235.

Weiss, Amy Schmitz. 2015. "Place-based Knowledge in the Twenty-first Century: The Creation of Spatial Journalism." *Digital Journalism* 3 (1): 116-131.

Westley, Bruce H., and Malcolm S. MacLean Jr. 1957. "A Conceptual Model for Communications Research." *Journalism Quarterly* 34 (1): 31-38.

Winter, James P., and Chaim H. Eyal. 1981. "Agenda Setting for the Civil Rights Issue." *Public Opinion Quarterly* 45 (3): 376-383.

Wittgenstein, Ludwig. 1953. *Philosophical Investigations*. Oxford: Blackwell.

Zelizer, Barbie. 2004. *Taking Journalism Seriously: News and the Academy*. Thousand Oaks, CA: Sage.

Zhang, Jueman, Gina Masullo Chen, T. Makana Chock, Yi Wang, Liqiang Ni, and Valerie Schweisberger. 2015. "A Psychophysiological Study of Processing HIV/AIDS Public Service Announcements: The Effects of Novelty Appeals, Sexual Appeals, Narrative Versus Statistical Evidence, and Viewer's Sex." *Health Communication*. (OnlineFirst). <http://www.tandfonline.com/doi/abs/10.1080/10410236.2015.1012629>