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A Model of Competitive Impression Management: Edison versus Westinghouse in the War of the Currents

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Abstract
Organizational impression management theory traditionally explains how firms manage threats from specific events or from campaigns orchestrated by non-competitors, such as activists or regulators, but has not attempted to explain the complex dynamics of impression management campaigns orchestrated by a firm's competitor. To address this oversight, we analyze one of the bitterest rivalries in corporate history—the war of the currents between Thomas Edison and George Westinghouse, which ended in the triumph of Westinghouse's alternating current over Edison's direct current for electric power transmission. We define competitive impression management as activity by a firm or its employees that is intended to alter the perceptions of a competing firm or its offerings in the eyes of a common audience. By combining historical case study and grounded theory methods, our findings reveal that the war of the currents unfolded across distinct chronological stages dependent on the actions and reactions of others that were shaped by audiences' information filters. We explore the implications of our theory of campaigns and their consequences, expanding the scope of impression management theory, deepening our understanding of how organizations compete, and providing fertile ground for future research on market-based campaigns.

Keywords: impression management, competition, information filters, Edison, Westinghouse

Firms have long recognized the value of countering threats to perceptions of themselves. When an outbreak of ''mad cow'' disease challenges firms in the meat industry (Elsbach, 1994), when business schools face a lower than desired ranking (Elsbach and Kramer, 1996), or when a firm is accused of criminality (Strachan, Smith, and Beedles, 1983), the threat is very real. While such threats vary in intensity and duration, impression management research

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suggests organizations manage potential repercussions by highlighting activities that can be interpreted positively (Milne and Patten, 2002), obfuscating activities that can be interpreted negatively (Elsbach, 1994), or attributing the situation to exogenous forces (Elsbach and Kramer, 1996).

While single-event threats may be manageable, threats that originate from orchestrated campaigns pose a greater challenge. Campaigns entail layers of complexity as campaigners use myriad tactics to advance their cause on multiple fronts. Moreover, a sustained attack compels the target of the campaign to respond, which can prompt the campaigner to escalate the original threat or create a new campaign (Lenox and Eesley, 2009). To reflect this complexity, impression management scholars have shifted their attention in recent years from static threats to dynamic campaigns (e.g., King, 2008; McDonnell and King, 2013). Although this shift captures more effectively the convoluted relations firms have with their external stakeholders, research continues to center on campaigners as non-market participants, such as activists (Friedman, 1985) or regulators (Burk, 1985), which form only part of the firm's environment. Missing is an account of how firms manage impressions in response to campaigns initiated by other firms that compete in the same economic space.

This competitive dynamic defines the for-profit firm. Whether to build a better world or merely a better widget, individuals collect in firms to compete in the marketplace of ideas. The drive to win creates incentives, not necessarily to be the best but to be better relative to competitors. One of the incentives is to bolster a firm's own image and to denigrate the image of competing firms. This can prompt multi-faceted attacks designed to undermine the perception of a rival in the eyes of a common audience. Consider Microsoft's campaign to scare customers from Linux, which began with Microsoft's claim that free software was unsafe. Once research had refuted that claim, Microsoft shifted to stressing the difficulty of use, then cost, including the potential for lawsuits (Moody, 2006). As a result, and despite its many benefits, Linux only ever captured a fraction of the enterprise server market (PR Wire, 2011).

Although impression management theory seeks to explain how actors shape perceptions of themselves held by others, it does not currently accommodate the possibility that the reason firms manage these impressions is that competitors are deliberately trying to alter them. To rectify this and explore these real-world competitive dynamics, we analyze one of the bitterest rivalries in corporate history. In the late 1800s, with the goal of bringing electricity to homes throughout the United States, Thomas Edison built a power transmission system that relied on direct current (DC) in which electricity flows in one direction. After realizing the inefficiencies inherent in Edison's DC system, George Westinghouse began securing patents from inventors around the world (including Nikola Tesla) for an alternating current (AC) system in which electricity flows in both directions (Stanley, 1912; Hodgkinson, 1936), then innovated to allow high-voltage transmission across greater distances than Edison's DC system could achieve (Westinghouse, 1888a, 1898, 1910a). Within a year of securing his first customer, Westinghouse installed or contracted for 68 AC central stations around the U.S. (Jonnes, 2003: 144). The rivalry for market dominance between Edison and Westinghouse that quickly emerged has become known as the war of the currents.

Relying on a historical case study assembled from primary sources, such as personal correspondence, firm records, and contemporaneous news coverage, and secondary sources, such as prior academic research, we expose the extreme lengths to which Edison went to try to win this market battle, including electrocuting animals in public demonstrations of AC's capacity to kill. Given there was widespread anxiety at the time surrounding potential dangers of this new form of energy (Hargadon and Douglas, 2001), Edison's task was to demonstrate not that electricity itself was bad but that Westinghouse's version of it (AC) was inferior to his own (DC). Edison, as a campaigner, sought to displace Westinghouse, as his competitor, in the market by managing the impressions of the target audiences they shared. In short, Edison had to engage in competitive impression management.

ORGANIZATIONAL IMPRESSION MANAGEMENT

Originating at the individual level of analysis, impression management is defined as an action that is designed to affect how one appears to others (Morrison and Bies, 1991: 523). Research in this area has suggested that individuals engage in two types of activity: defensive impression management entails actions intended to avoid creating an unfavorable image of oneself, while assertive impression management entails actions intended to engender a favorable image (Tedeschi and Melburg, 1984; Tedeschi and Norman, 1985).

Seeing an opportunity to extend these insights to a higher level of analysis, scholars have compiled evidence that organizations use both defensive and assertive impression management to gain, maintain, and repair perceptions of themselves. Firms engage in defensive impression management to preempt criticism about controversial changes (Arndt and Bigelow, 2000) and engage in assertive impression management by disclosing prosocial activities to win audience support (Gray, Kouhy, and Lavers, 1995) or insulate themselves from attacks (Baron, 2001). Firms also mix defensive and assertive activity by creating positive news coverage to mitigate the negative effects of a pending protest (King and Soule, 2007) or by timing positive information releases to disrupt negative news (Graffin, Carpenter, and Boivie, 2011).

An organization also may act to diminish the consequences of a negative event for which it is responsible, either by denying the event happened or by attributing it to factors beyond its control. Firms facing discrimination lawsuits, for example, usually deny the claims, citing policies in place intended to prevent such behavior (Hayes and Perry Wooten, 2006). Similarly, members of the cattle industry responded to a contamination crisis by asserting that their meat met existing USDA standards, intimating it was the standards, rather than industry practices, that should be judged (Elsbach, 1994). When the threat is attributable to internal causes (e.g., fraud), firms may announce specific actions perceived to address the cause of the wrongdoing (Pfarrer et al., 2008a) and attenuate negative media portrayals (Zavyalova et al., 2012). CEOs have also been known to adopt symbolic changes by appointing directors (Westphal and Graebner, 2010) or ethics and compliance officers (Chandler, 2014) to craft an image of enhanced monitoring and control.

Competitive impression management goes beyond the defensive and assertive in that it is intended to alter the perceptions of a competing firm or its offerings in the eyes of a common audience. While it could be argued that the

dynamics around products and services do not represent organizational impression management, this would ignore the extent to which stakeholders associate a firm with its offerings, especially when the product or service fails. Ten deaths in cars equipped with Takata airbags, for example, led to recalls of 60 million vehicles, the CEO's resignation, a customer exodus, and a dash for capital (Kubota and Fukase, 2016; Spector, 2016). A scan of the news reveals that any shift in opinion that makes a particular firm—through its products or services—appear weaker relative to an alternative in the market is a competitive threat. Thus firms in industries as varied as soft drinks (Enrico and Kornbluth, 1986) and automobiles (Rao, 1994) often strive to make themselves appear more favorable in the eyes of target audiences by making competitors look worse by comparison. Due to the potential severity and frequency of such threats, there is value in exploring the nature and consequences of competitive impression management.

METHODOLOGY

Given that historical data can only be discovered and interpreted, rather than created anew by the researcher (Yates, 2015), scholars should be sensitive to three methodological challenges: first, source validity, privileging texts and other objects produced during the time under study; second, source credibility, considering whether data represent an objective fragment of the past or are infused with subjective intent; and third, source context, understanding that events and interactions that took place in a particular context may not mirror the world as it is today (Lipartito, 2015). Scholars must always ask, ''Why was this document or artifact produced, by whom and for what purpose?'' (Lipartito, 2015: 289).

Certainly, past developments will influence future choices and create a degree of path dependence, but examining actors' historical choices requires one to unravel the actors' lived experiences (Wadhwani, 2014). This means the researcher must create working hypotheses regarding actors' motivations, which can provide a unique richness to theory building. It is this logic, for example, that allowed Griffin (1993) to extrapolate that a deputy's hands-off stance toward a white lynch mob in Mississippi in 1930 would be interpreted by the mob as encouragement in its hunt for African American David Harris. Thus Griffin was able to infer the mob's mentality at the time, as well as the deputy's moral culpability in the lynching, despite the lack of direct evidence of intent. This approach is integral to analyzing historical data and therefore central to our analysis of the war of the currents.

Data Collection

Historical sources ''com[e] into focus through the back-and-forth process of posing questions, investigating sources, reframing questions, [and] discovering new sources'' (Lipartito, 2015: 288). Our data collection and coding reflected these iterative dynamics, moving through five stages wherein post-collection activity catalyzed explorations of new archival sources. See table A1 in the Online Appendix (http://journals.sagepub.com/doi/suppl/10.1177/0001839218821439) for details.

Step 1 of our data collection began by focusing on a New York electrician who was identified in prior studies as a central actor in the war of the currents, Harold P. Brown (Hughes, 1983). We assembled all newspaper articles featuring Brown either as the primary author (e.g., of a letter to the editor) or as part of the broader story in the most prominent New York newspapers of the late nineteenth century: the *New York Times* (*NYT*), the *New York Tribune*, the *Sun*, and the *World*. Because prior work has established that the media requires protagonists, settings, and either change or conflict to craft stories (Hoffman and Ocasio, 2001; Rindova, Pollock, and Hayward, 2006), we organized the articles around the actors, actions, locations, and outcomes. We also began constructing a rough chronology of events, which revealed gruesome details (i.e., electrocutions of animals) and allowed us to create a basic case description (Yin, 2009: 131).

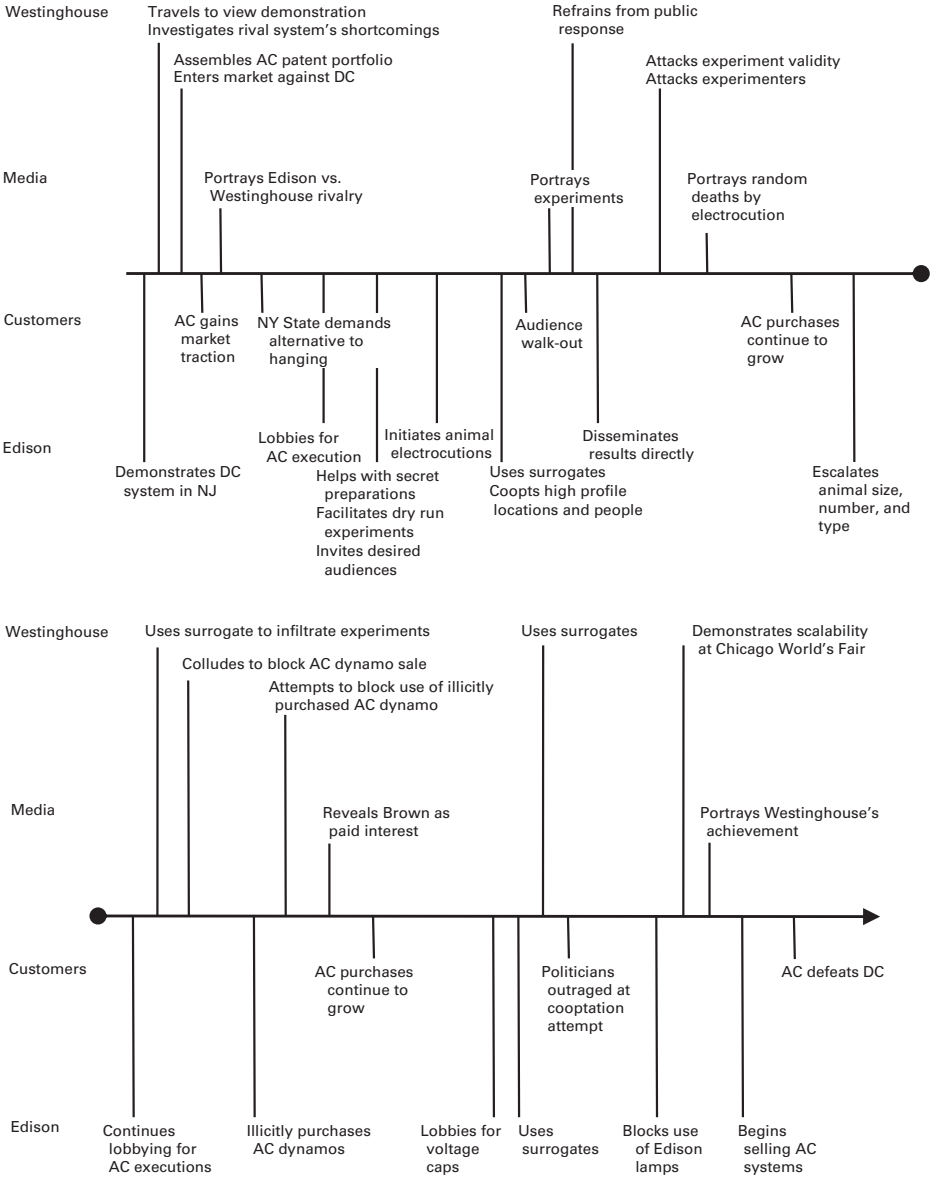
In Step 2, we searched the Thomas Edison Papers Project archive for mentions of the 132 unique individuals and 20 organizations identified in the articles we found in Step 1. Those sources filled in important gaps, helping us refine the identities of the actors involved and begin to create a chronology of key events. We also began to postulate the motivations of the decision makers. This reflective process helped us realize the extent to which the actions of Edison and Brown as campaigners against Westinghouse had an observable effect on audiences: people on the receiving end of their campaign tactics. As a result, we determined that our analysis needed to include audiences of the campaign as well as the target. Our reflections also suggested an implicit staging to the dynamics under study. This led to further data collection and theoretical sampling to fill in gaps and improve our ability to make comparisons and draw conclusions (Strauss and Corbin, 1998: 201).

In Step 3, we searched the collections of private papers of individuals and official records of organizations identified as key actors in the prior stages. In Step 4, we turned to understanding Westinghouse and his allies—a search yielding internal documents, correspondence, legal briefs, and media clippings of Westinghouse's fight against the DC standard. In Step 5, we returned to the Edison archive to ensure we had captured all individuals and organizations newly identified in the audience and target collection stages. Table A1 in the Online Appendix summarizes the collections we searched. This process of cross-validation yielded a comprehensive list of 189 individuals and 38 organizations, which enabled us to update our chronology with key Westinghouse events and refine the activities of Edison, the media, and customers of the technology.

Data Coding and Analysis

Because the primary concern of a historical researcher is ''the playing out of event upon structure, upon further events that gradually reshape a period or era of interest'' (Lipartito, 2015: 287), we focused our attention on those events we judged to have influenced the perceptions held by key audiences. An event is a ''distinguishable happening, one with some pattern or theme that sets it off from others, and one that involves changes taking place within a delimited amount of time'' (Conkin and Stromberg, 1989: 173). We approached our data using a broad toolkit, including chronology analysis and logic models from case study methods (Griffin, 1993; Yin, 2009) and open, axial, and aggregate

Figure 1. Chronology of key events in the war of the currents.



dimension coding from grounded theory methods (Strauss and Corbin, 1998; Gioia, Corley, and Hamilton, 2013).

After completing the chronology of events shown in figure 1 and constructing our broad case description, we relied on open coding to categorize our raw data (Strauss and Corbin, 1998). This entailed constructing a working definition for a given category and then refining the definition or creating a new one as new data emerged. We then engaged in axial coding to link the categories at a shared-property level. A close examination of the axial codes revealed that they could be further combined into aggregate dimensions (Gioia, Corley, and

Hamilton, 2013) that followed a clear chronology. Certain activity (e.g., sensational news stories) logically followed other activity (e.g., gruesome experiments involving electricity applied to animals, which we explain when describing Edison's and Brown's campaign tactics). Thus we performed a third round of coding, wherein we grouped our axial codes into aggregate dimensions that had an implicit chronology. Tables A2 and A3 in the Online Appendix capture our transition from raw data through open and axial coding to our chronological aggregate dimensions. The discovery of the implicit chronology within the aggregate dimensions was a gestalt moment for us because it suggested a conditionality among the dimensions we had identified, wherein some activity occurred only because certain other prior activity occurred. Thus, just as our data collection interacted with our chronology analysis and case description formation, our data coding interacted with our data analysis and theory building. Evidence of conditionality also accorded with the admonishment that understanding the choices of historical actors requires unraveling those actors' experiences at that moment in time (Wadhwani, 2014). When Brown (1889b) wrote in a letter to Thomson-Houston vice president Charles A. Coffin to ''have the shipping [of an AC dynamo] done in such a way that it can be traced back to no other than myself,'' for example, Brown was clearly seeking to hide others' involvement (table A2, open code) using the tactic of obfuscation (table A2, axial code) as part of campaigner spearheading (table A2, aggregate dimension). This suggested to us that Brown understood the duplicitous nature of his actions; thus we inferred Brown was trying to avoid a negative reaction from observers, such as shaming or disgust (table A3), and we later aggregated this within the axial code of propriety (i.e., audience's perceptions of violations of appropriateness; table A3, axial code). This level of iteration and reflection was necessary not only to code properly the aggregate dimension of information filters—which we explain in the next section and highlight in table A3 in the Online Appendix—but also to theorize the conditions that explain ''how, when, where, and why'' events unfolded the way they did (Strauss and Corbin, 1998: 21).

FINDINGS

Our findings suggest that the war of the currents unfolded across distinct stages dominated by specific actors, whose choices were influenced by information filters that were idiosyncratic to their roles, shaped by their perceptions of others' possible reactions, and conditional on their actual reactions. In Stage 1, Edison and his allies spearheaded a campaign against Westinghouse broadly focused on AC's dangers, specifically its potential deadliness. In Stage 2, the media and customers—both political customers, who at the time were searching for more humane methods to execute prisoners, and commercial customers, who were seeking to distribute electricity safely and economically—reacted to the campaign as target audiences. In Stage 3, the competitor Westinghouse reacted to the reactions of the media and customers as evidence suggested Edison's tactics were working. Viewing the dynamics holistically, we were able to conclude that certain activities would not have occurred had certain other activities not preceded them and interacted with the existence of actor-specific information filters.

Information Filters

Information filters played a critical role in the war of the currents. When an actor is faced with multiple options, information filters narrow the possible choices around certain themes that are of importance to that actor, and thus they represent a mechanism of attention-based decision making (Nigam and Ocasio, 2010). In doing so, these filters condition the actor's response along lines of perceived value. We find that the use of the filter for the self may or may not be conscious, but the exploitation of the filters of others is a conscious act. To help ensure consistency and clarity, we therefore employ the word ''use'' when describing an actor's own filters and the word ''exploit'' when describing the manipulation of the filters of others. Our analysis revealed five filters that were critical in the war of the currents: rivalry mentality (Edison and Westinghouse), mindfulness to others (Edison and Westinghouse), drama-seeking (media), cost-benefit (customers), and propriety (both media and customers).

First, the rivalry mentality filter motivates an actor to pay keen attention to those viewed as competitors for the same finite resources (e.g., customers, employees, market share, etc.). The rivalry mentality filter between Edison and Westinghouse ensured that these industrial contemporaries monitored each other very closely. To stay informed, Edison ''desire[d] all the literature published in regard to Westinghouse'' and his innovations (Hastings, 1889c), while Westinghouse kept tabs on his rival by collecting Edison's ''confidential circular[s]'' and other materials (Westinghouse, 1888a). When Edison first displayed the DC power transmission system outside his New Jersey lab, his rival made the 350+ mile trek from Pittsburgh to be present (*NYT*, 1888a)—a significant effort at the time given that most roads were packed dirt and there was just one vehicle per 18,000 people (History.com, 2010). While there, Westinghouse spoke with Edison's engineers and discovered his opportunity for competitive differentiation (Wilcox, 1971): Edison's DC system could send electricity affordably only roughly one mile. For it to work, each town would need to buy both a generator and distribution system—an amazing business opportunity for Edison but a heavy cost for customers. The proactive and reactive nature of this attentiveness revealed a keen rivalry between the two men.

Second, the mindfulness to others filter embodies an actor's ability to be sensitive to how actions will be interpreted by observers given the particular filters they use. The actor making a decision does so not only with a view to the effectiveness of the decision but also to the way that key audiences will perceive that decision. This filter was exploited extensively by both Edison and Westinghouse and is best illustrated by our description of the remaining three filters.

Third is the drama-seeking filter used by the media to discern which stories to publish to appeal to readers. At the extremes, this means that journalists will search for dramatic content that otherwise might not be published. At one point, the media ''wrote such sensational accounts . . . that [one] Commission was shocked'' and banned journalists from viewing tests that Edison and Brown staged to show how Westinghouse's AC system could be used in executions (the *Sun*, 1890a). Because he was mindful that the media would view content through this filter, Edison and his allies exploited it by feeding

journalists content that would meet their needs for sensationalism (Reece, 1889; the *World*, 1889b). This included directing politicians' attention toward the dangers of AC by staging public electrocutions of dogs, the first of which occurred in 1888. Edison and his allies then escalated the size, number, and types of animals electrocuted to increase the drama and make sure the media would find such events newsworthy (*NYT*, 1888a; the *World*, 1889a).

Fourth is the cost-benefit filter of customers who balance the utility derived from a product or service with the financial, safety, or other costs of consuming that product or service. Our analysis revealed that Edison and his allies' demonstrations of AC's deadliness were deliberately framed to exploit customers' cost-benefit filter. The benefit to some politicians (i.e., political customers) was that AC technology could solve the problem of identifying a more humane method of executing prisoners. The cost to electric companies (i.e., commercial customers) was the potential danger of people accidentally coming into contact with AC currents: the experiments that Edison staged "proved the alternating current to be the most deadly force known to science, and that less than half the pressure used in [New York] city for electric lighting by this system is sufficient to cause instant death" (*NYT*, 1888e). Westinghouse emphasized AC's financial benefits to customers (its lower costs than DC electricity) and the constitutional costs to politicians of electrocutions (use could be considered "cruel and unusual punishment," which is prohibited in the U.S. Constitution). Thus both Edison and Westinghouse showed mindfulness to how customers—both political and commercial—draw on a sense of value in making decisions.

Fifth is the propriety filter of both the media and customers, which represents a judgment of the appropriateness of an observed activity. This filter can be exploited by anyone seeking to elicit outrage or distress, or it can be circumvented by hiding activity that may cause such effects. Going so far as to lie under oath, Edison and Brown hid the extent of their illicit partnership to undermine Westinghouse, which included Edison facilitating dry-run animal electrocution experiments for Brown (Kennelly, 1888b), providing lab space and equipment (Hastings, 1888e) and financial support (Jenks, 1889), paying to distribute the results of Brown's experiments (Hastings, 1889b), and guiding Brown to contact certain officials (Hastings, 1889d) and media "to educate [regarding] the dangers of high tension currents" (Tate, 1889). Edison (1888) even privately wrote to the ASPCA's president to "obtain some goodsized animals for the purpose of completing these experiments." We inferred from the surreptitious nature of these activities that Edison feared his sponsorship of Brown's animal executions would be considered improper. Westinghouse also took indirect action to avoid being perceived negatively, such as sneaking staff into Edison's lab (*NYT*, 1889a) and dispatching surrogates to argue on his behalf (Hughes, 1983: 108). We attribute these behaviors, as well as the use of other tactics such as obfuscation, as indications of mindfulness, particularly to the potential consequences of violating the propriety filters of the audiences targeted in the war of the currents.

While we define each information filter independently, in reality, they overlap and interact with each other. Rarely in our data analyses did we find a single filter in action alone. More commonly, multiple filters would be in use at each stage of the war of the currents. For example, the media relies on readers' propriety when sensationalizing the news via the drama-seeking filter. It is this complexity that makes the war of the currents—and competitive impression management campaigns in general—so important to theorize.

The War of the Currents: Three Major Stages

The war of the currents was a multi-year campaign waged by Edison against his industrial rival, Westinghouse, that took place at the end of the nineteenth century. Relations between the two men deteriorated to such an extent that Edison's campaign has been described as ''a system of warfare against [a] business rival which has perhaps never been equaled in American business practices, either in bitterness, in vituperation or in stultification'' (Heinrichs, 1931: 20).

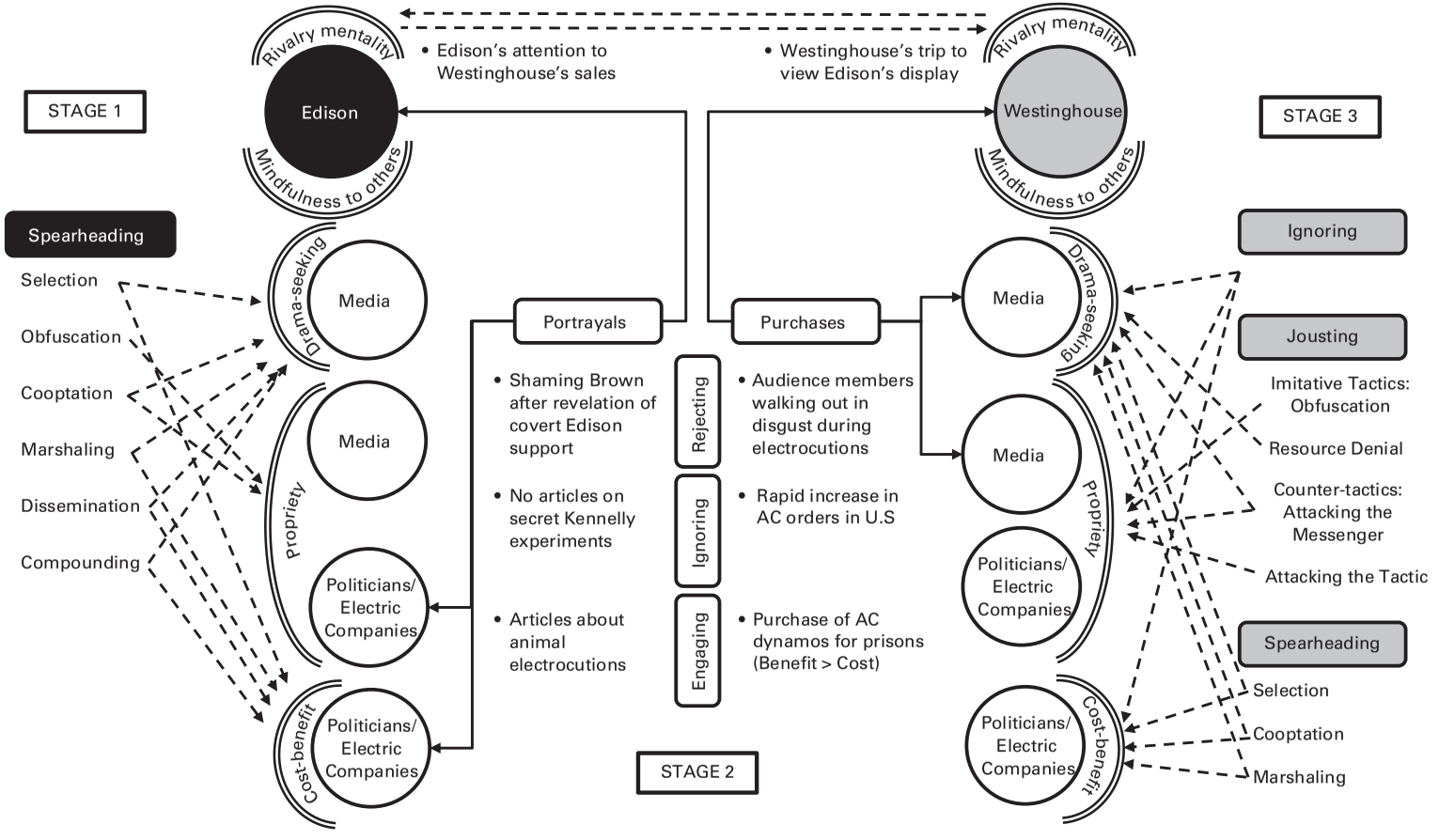
Our analysis revealed three distinct stages embedded in the inherent messiness of this war: the spearheading of a campaign by Edison; the response by the three audiences Edison was seeking to influence (politicians, electric companies, and the media); and the response these reactions engendered in Westinghouse. Although the dynamics were iterative, multilayered, and often contemporaneous, they also reveal a specific sequence of events. Figure 2 provides a graphic model of the war of the currents, displaying the tactics used on both sides to influence the media and customers.

Stage 1: Edison Spearheads a Campaign

Our analysis revealed that Edison relied on six tactics in his campaign against Westinghouse: (1) selecting the dimension of contestation (the danger of AC relative to DC); (2) obfuscating his involvement, which allowed for more contentious content via plausible deniability; (3) coopting esteemed locations, institutional bodies, and individuals, which provided legitimacy; (4) marshaling resources necessary to enable the campaign; (5) disseminating content to intended audiences; and (6) compounding his message across campaigns, creating a cumulative effect.

Selection. Soon after seeing Edison's original public display, Westinghouse entered the power market, setting up the first AC central power transmission station in Buffalo, NY in November 1886 (AOMACA, N.D.). Within a year, AC stations were installed in cities across the U.S. (Stillwell, 1934). These commercial successes posed a direct competitive threat to Edison, driving him to try to scare customers by linking AC to danger. In addition to Edison having the will to thwart his rival, the spearheading of his campaign was opportunistic—Edison was one of 200 people surveyed by a commission established by the New York State Legislature to find ''a less painful method of execution than the present [hanging]'' (Gerry, Southwick, and Hale, 1888: 85). Fortuitously for Edison, at least one of the commission members had seen electrocutions of stray animals in Buffalo (Essig, 2003: 94), while human deaths from power lines dominated the newspapers (Board of Electrical Control, 1888b) and inquests ''to fix the responsibility for the death[s]'' were needed given the tangle of wires above the streets (*New York World*, 1889b). So when New York electrician Harold P. Brown (1888d) published a letter to the editor calling for AC's prohibition on safety grounds, Edison saw his chance to influence the market by focusing on AC's deadly potential. He did so by befriending Brown and then materially supporting the public electrocution of dozens of animals, including dogs, calves, and horses (Hastings, 1888e; *NYT*, 1890a), in a morbid and dramatic campaign against his rival. In the process, he actively worked to

Figure 2. A model of the war of the currents.*



* Half circles represent information filters, dashed arrows represent mindfulness toward certain information filters, solid arrows show information flow, and bullets highlight examples. A more detailed version is available in the Online Appendix.

associate Westinghouse's technology with the execution of prisoners, something that politicians were exploring but that Westinghouse wanted to avoid so that people did not associate AC with death.

In essence, the experiments on animals were social performances (Alexander, 2004) designed to emphasize the dimension Edison had selected: AC = danger. The first performance provided a template to be replicated throughout the campaign. The New York Board of Electrical Control called a meeting on July 30, 1888 to hear concerns about the safety of electricity. Brown (1888a) planned to attend the meeting and sent an invitation to the media, independent experts, and representatives of the electric companies (*NYT*, 1888a) that read:

> Your presence is requested at a practical demonstration, by Harold P. Brown, Electrical Engineer, of the comparative death-dealing qualities of High-tension Continuous and High-tension Alternating Electric Currents, before The Board of Electrical Control and representatives of the Press . . . in Prof. Chandler's Lecture Room of the School of Mines, Columbia College. . . .

To dramatic effect, Brown and Arthur Kennelly, Edison's chief electrician, ''experimented with the alternative electric current [AC] on three dogs'' (*NYT*, 1888c) using equipment brought from Edison's lab (Hastings, 1888e). The ASPCA eventually stepped in to halt the electrocutions on cruelty grounds, but the experiment set the stage for similar ones to follow.[1]

Edison's goal was to ''fight against [AC's] use for house lighting'' (Brown, 1888b) by drawing attention in state legislatures (Edison, 1887), courts (Edison, 1890), and public opinion (Brown, 1888c; Skinner, 1934) to its potential danger. Central to this effort was the denigration of Westinghouse and his AC technology. When searching for a label for the potential practice of executing prisoners via AC electrocution, for example, Edison's attorney, Eugene Lewis, offered a historical parallel to Dr. Guillotine:

> As Westinghouse's dynamo [generator] is going to be used for the purpose of executing criminals, why not give him the benefit of this fact in the minds of the public, and speak hereafter of a criminal as being 'westinghoused', or as being 'condemned to be westinghoused'; or, to use the noun, we could say that such and such a man was condemned to the westinghouse. (Lewis, 1889; emphasis in original)

The data leave little doubt that those orchestrating the campaigns were seeking to create broad negative perceptions of Westinghouse and AC to the benefit of Edison and DC.

Obfuscation and cooptation. The second and third tactics Edison employed to initiate his campaigns were attempts to avoid direct association with the experiments on animals (obfuscation) while connecting those experiments with esteemed others to add legitimacy and mitigate the possibility of

[1] While ASPCA officers had a history of stopping horse-drawn streetcars and arresting their drivers for animal cruelty (*NYT*, 1873), the founder of the ASPCA, Henry Bergh, believed that animals should be protected for their usefulness, if for no other reason, and did not object to killing animals for proper purposes (*NYT*, 1875). That may explain why Edison (1888) felt comfortable writing personally to Bergh to request dogs for his experiments in 1888.

criticism (cooptation). We viewed both types of actions as attempts to influence audiences' assessment of an event or activity as appropriate (Dornbush and Scott, 1975; Bitektine and Haack, 2015)—a mindfulness to others' propriety filter.

In light of AC's technical superiority to transmit power over long distances at lower cost than DC (Hughes, 1983), Edison had a clear interest in drawing attention to AC's deficiencies, particularly its greater potential to kill. But being seen to engage in an activity such as electrocuting animals, which most people consider repulsive, presented a challenge in terms of propriety. At the time, Edison was hailed as ''the greatest electrician of the age'' (*NYT*, 1889i: 8) and called ''the wizard'' for his feats (*NYT*, 1889l: 2), but audiences often sanction individuals (Grandy and Mavin, 2012) and organizations (Pfarrer et al., 2008b) that violate norms, and highly regarded actors are not immune (Rosoff, 1989). Thus Edison had much to gain by obfuscating his close involvement in the animal experiments, which remained secret until revealed in court testimony by Arthur Eastman Colgate (1889), an employee of Western Electric Co.:

Q: There was a series of experiments there, was there not?
A: Yes, sir.
Q: Was it about the same time?
A: I think this was about a week or so before Mr. Brown came there.
Q: Who was experimenting then?
A: Mr. Edison.
Q: Himself?
A: He was superintending the experiments. They were under his superintendence.

While Edison wanted to conceal his involvement in the experiments, he clearly desired the public involvement of prestigious locations, institutions, and individuals. Edison's cooptation of locations included the School of Mines at Columbia College (*NYT*, 1888a) and Johns Hopkins University (Brown, 1889c); his cooptation of institutions included the Medico-Legal Society (Kennelly, 1888b) and Board of Health (*NYT*, 1889e); and his cooptation of individuals included university faculty and New York City physicians (*NYT*, 1888a). Brown (1889a: xv) reported that after his first experiment at the School of Mines was shut down because of its disturbing nature, ''I invoked the protection of Dr. Cyrus Edison and Dr. Clins F. Roberts of the Board of Health, under whose auspices, as vivisectionists, I would have the right to continue my demonstrations uninterrupted.'' The cooptation was intended to achieve two goals: create a veneer of acceptability for the experiments, which otherwise caused outrage, and ensure media coverage of the events.[2] Observing the involvement of esteemed actors and locations forces those who may have judged the

[2] Though both obfuscation via surrogates and cooptation can help a campaigner avoid scrutiny and accountability, surrogates and coopted actors differ in their awareness. At a theoretical level, it is the lack of complicit awareness that distinguishes a coopted actor from a surrogate. The individuals invited to participate in Edison's and Brown's experiments were aware they were electrocuting or performing autopsies of animals but were unaware they were reinforcing Edison's campaign narrative that AC = danger. While coopted actors may eventually come to understand their connection to the campaigner's covert goals, it is essential that they do not know at their point of involvement. Otherwise, they should be considered surrogates, such as Brown, who are fully aware of the campaign's methods and ultimate goals.

experiments to be a violation of their own internalized standards of acceptability to question their own judgment (Bitektine and Haack, 2015).

To illustrate, the first public experiment on animals in 1888 took place in the lecture hall of Dr. Charles F. Chandler, who was well known for certifying everything from water quality to batteries (Chandler, 1890) yet was strict about the use of his name in advertisements by those who retained him (Chandler, 1891). Because Brown and Kennelly brought their own equipment (Hastings, 1888b), they did not need to be in Chandler's lab per se—the value lay in the veneer of scientific credibility it provided. During the experiment, Brown secured audience participation several times. For example, ''I then requested the audience to name a pressure of *alternating* current which they believed would be *absolutely safe*. Some one present suggested 300 volts. I then applied an *alternating* current of 300 volts' pressure, which caused instant death'' (Brown, 1889a: xiv; emphasis in original). And ''Mr. T. Carpenter Smith volunteered to check the readings at the request of Mr. Brown'' (Brown, 1889a: xlii). On another occasion, when Edison ordered Kennelly to begin secret experiments on dogs and later allowed Brown to participate, they invited Dr. Frederick Peterson of New York's Vanderbilt Clinic to do the autopsies (Kennelly, 1888b). While any local physician would have sufficed, Peterson (1888a) was chairman of a committee of the Medico-Legal Society of New York that provided recommendations on technical issues to the penal system. The committee later unanimously recommended AC for criminal executions (*NYT*, 1888b; Brown, 1889a: xix).

Marshaling. The fourth tactic Edison used to initiate his campaign focused on assembling necessary resources, including human, social, and financial capital. Edison leveraged personnel in several ways, including asking his chief electrician (Kennelly) to assist Brown in his work (Kennelly, 1888b) and asking his personal secretary to recruit employees from other Edison-related firms (Hastings, 1888a, 1888b, 1888d). It is clear from the data that Edison and his campaign saw symbolic value in individual personnel beyond the expertise they brought to the project. For example, in a letter Brown wrote to Charles A. Coffin on April 23, 1889, he requested permission ''to employ Mr. E. A. Barnes, former superintendent of the Westinghouse station at Staten Island, for the few weeks necessary . . . since I would like to be able to say in the report that one of the best posted Westinghouse men saw that the dynamos and converters were in proper condition and adjustment before the test.''

Edison also was willing to invest other resources to facilitate the social performances. Edison ''gratuitously placed his laboratory and more at [allies'] disposition for carrying out such experiments'' (Kennelly, 1888a), providing financial support to Brown (Jenks, 1889) and paying to distribute the results of Brown's experiments to audiences across the country (Hastings, 1889b). Edison even paid local children for each dog they could deliver: ''The boys brought them for 25 cents apiece'' (Kennelly, 1889: 710), and ''Local residents began to complain about the mysterious disappearances of their pets'' (DeGraff, 1990: 15).

Dissemination. The fifth tactic used by Edison in his campaign was the dissemination of content to specific audiences. By inviting key figures to attend

his performances and promoting the events, Edison was trying to curate the attention of targeted audiences. Edison encouraged Brown to contact certain media outlets (Tate, 1889) and state officials (Hastings, 1889d) and, with his allies, went to great lengths to ensure the audience was appropriate for each event. A report on the first public experiment stated, ''The comparative death-dealing qualities of high tension electric currents, continuous and alternating, interested quite a company of gentlemen who gathered to hear the subject discussed yesterday in Prof. Chandler's lecture room at the School of Mines'' (*NYT*, 1888a: 8).

It was vital to the campaign to invite the right people to witness each event. On August 5, 1889, an AC dynamo intended for the execution of convicted murderer William Kemmler—the first U.S. prisoner slated to be put to death by electrocution—arrived at Auburn Prison in upstate New York. Brown traveled 250 miles from New York City to test the machine, but after arriving, he discovered that ''several scientific gentlemen whose presence was desired'' were absent (*NYT*, 1889m: 3). Brown postponed the test until the desired individuals were present.

Similarly, we found evidence that Edison and his allies disseminated campaign content directly to key audiences, including sending damning evidence against AC ''to mayors, members of city Governments, Insurance men and principle business men in every city and town of over 5,000 inhabitants in the United States'' (Hastings, 1889b: 1). The cost and effort of mailing thousands of documents was clearly something Edison believed worthwhile. His surrogate, Brown, similarly had ''a report of the proceedings [of a demonstration intended to sway the Board of Electrical Control] signed by all present and sent to the associated press throughout the country'' (Brown, 1888b: 1) in an attempt to shape media coverage. Edison also appealed in person to the New York State commission investigating execution alternatives, advocating that it adopt AC for state-sanctioned executions, as ''passage of the current from these [AC] machines through the human body, even by the slightest contacts, produces instantaneous death'' (Gerry, Southwick, and Hale, 1888: 80; *NYT*, 1995).

Compounding. The sixth and final tactic that characterized Edison's war against Westinghouse was the compounding of multiple campaigns to solidify the perception that AC = danger. The first campaign entailed lobbying New York legislators to adopt AC dynamos for the executions of condemned criminals. This campaign demonstrated the deadly ''benefit'' of AC to politicians looking for alternatives to hanging (Peterson, 1888b), which was both inefficient and cruel. As we've noted, Edison advocated for Westinghouse's technology to be adopted by New York State (Edison, 1887; *NYT*, 1889l)—a counterintuitive ploy until one considers that success would demonstrate a cost to electric companies (i.e., retail customers' fear). The campaign considered this important enough for Edison to encourage his staff to ''buy, borrow or steal a Westinghouse dynamo'' for an experiment in front of the superintendent of state prisons (Hastings, 1889a: 1).

The second and third campaigns built on the foundation laid by the first campaign to enhance Edison's underlying message of AC = danger. The second campaign reinforced the first by trying to demonstrate AC's death-dealing

prowess through public performances. The experiments began with small dogs (Kennelly, 1888b: 74), shifted to larger dogs, then to calves and horses (the *Sun*, 1889d). Figure A2 in the Online Appendix depicts this escalation in number, size, and species, culminating in the resistance testing of humans to determine whether the same levels of power were passed through the body uniformly and thus whether using electricity to execute William Kemmler could be considered unconstitutional (*NYT*, 1889a; the *Sun*, 1889a).

The third campaign entailed lobbying state and local legislators in New York (Brown, 1888b), Virginia (Stillwell, 1934), Ohio (Stillwell, 1934), and Pennsylvania (Mages, 1992) to cap voltage levels across all electrical standards—a move designed to erase the cost-saving benefits of AC (Mages, 1992) but framed as a way ''to prevent danger from electric currents'' (P.P.O., 1890). Edison wrote, regarding the Virginia bill to cap voltage, ''After the passage of this act, it shall not be lawful for any individual or corporation, public or private to generate or use, or cause to be used for distribution to the public, directly or by induction, any electric current with sufficient electric pressure to produce human death accidentally by the direct action of such current'' (Stillwell, 1934: 709). This third campaign ultimately saw little success; in Virginia, for example, after Westinghouse sent the president of Stevens Institute as his surrogate to defend his interests, state senators realized that ''Virginians were being used in a competitive struggle between two 'Yankee' corporations'' (Hughes, 1983: 108). When spearheading secondary or tertiary campaigns in ways intended to complement (rather than replace) the initial campaign, those campaigns can be considered to be the tactic of compounding for the initial campaign.

Stage 2: Target Audiences React

Given that a competitive impression management campaign is designed to influence an audience's perceptions of the competitor, the target audience plays a key role in how a campaign evolves and whether it ultimately succeeds. In the war of the currents, there were three key audiences: politicians, electric companies, and the media. Our analyses showed that all three audiences faced three decision options for responding to Edison's campaign: engage, ignore, or reject.

Engaging. There is substantial evidence that Edison's first two campaigns in Stage 1 resonated with politicians. The 1888 commission appointed by the New York State Legislature to investigate the most humane and technically advanced alternative to hanging concluded that ''It is the duty of society to utilize for its benefit the advantages and facilities which science has uncovered to its view'' (Gerry, Southwick, and Hale, 1888: 79). To this end, Edison and his allies facilitated a series of experiments in front of members of the commission (Hastings, 1889a), as well as the Board of Electrical Control (Brown, 1888b) and the Medico-Legal Society (Hastings, 1888c), all of whom responded by affirming the efficacy of AC. New York State later hired Brown to procure three dynamos for Auburn, Sing Sing, and Clinton prisons (*NYT*, 1889d). Clearly, Edison's campaigns were having the desired effect, highlighting AC's efficacy in dealing death to motivate purchases by politicians and portrayals by the media. As a

Westinghouse ally recalled, ''In the newspapers, in the courts and in the halls of legislatures, the Westinghouse Alternating Current system was pronounced unsafe and deadly to human life'' (Heinrichs, 1931).

We also found evidence the campaigns were influencing perceptions of those doing business with electric companies. In 1889, for example, two companies using Westinghouse's dynamos to deliver power sent a blistering letter to several newspapers, criticizing Edison for ''sending officers and agents to our customers with incorrect and misleading statements and spreading broadcast through your agents and paid agitators grossly incorrect and even absolutely false information . . . [and] attempting to prejudice the public [against AC]'' (*New York World*, 1889a). Specific mention of ''settl[ing] the question to the satisfaction of the insurance companies, the users of incandescent lights and the bewildered public'' indicates Edison's campaign was having a detrimental effect on either these firms' revenue or costs, spurring their public retort.

Ignoring. While Edison was having success engaging politicians and the media, many electric companies were ignoring the safety concerns emphasized in his campaign. The benefits of AC in range and cost were obvious and did not escape even members of Edison's own subsidiaries who were competing in the market for customers. At the annual convention of the Edison Illuminating Companies in August 1889, the manager of the Detroit Edison Station ''earnestly appeal[ed] to the parent organization to supply these deficiencies . . . [specifically, a] flexible method of enlarging the territory which can be profitably covered from their stations for domestic lighting by higher pressures and consequently less outlay of copper than that involved by the three-wire method'' (Westinghouse, 1889: 663–664). In general, however, we found that ignoring was the least evident option in the data. With ever-larger animals being electrocuted as social performances, and the commercial potential of electricity to transform households (and execute serious criminals) in the U.S. becoming increasingly apparent, it was far easier for the different audiences either to engage with or reject Edison's controversial campaign.

Rejecting. During the first public experiments on animals in July 1888, after Brown subjected the first dog to increasing levels of DC electricity up to 1,000 volts—which tortured but did not kill the animal—several audience members walked out in disgust (Brown, 1889a; Peterson, 1889), a clear indication of the violation of these individuals' propriety filter. Brown (1889a) reacted quickly to the audience's rejection of the tactic, asking those who remained to name a level of AC that they felt would be absolutely safe; someone suggested 300 volts. Brown applied that level, which killed the dog, and at that point an ASPCA agent intervened, enhancing the drama (*NYT*, 1888a). Brown then defiantly declared that ''the only places where the alternating current ought to be permitted were 'the dog pound, the slaughter house, and the State prison''' (Leupp, 1919: 146).

The media also engaged in public shaming. After it was discovered that Brown was receiving material support from Edison (*NYT*, 1889h), the *New York Sun* shrieked, ''For Shame, Brown—Disgraceful facts about the electric killing scheme; paid by one electric company to injure another'' (the *Sun*,

1889b). In both cases—the walkout and the public shaming—the actions of the Edison–Brown alliance catalyzed public rejection as a response.

Stage 3: Westinghouse Responds

While Edison's competitive impression management campaign was intended to influence target audiences' perceptions of AC and thus sales, Westinghouse, as AC's chief proponent, had many opportunities to influence the path that unfolded and therefore determine the outcome. As Edison began his campaign against AC, Westinghouse progressed through three response options: initially ignoring Edison's campaign, later jousting with his rival (sometimes in veiled ways) along the safety dimension, and eventually spearheading his own campaign along a different dimension of contestation: scalability. Ultimately, it was his decision to spearhead his own campaign defined on his own terms that resulted in the victory of his AC over Edison's DC.

Ignoring. Our analysis reveals that ignoring was Westinghouse's initial response. Such a response is viable for competitors, like Westinghouse, who have a buffered reputation (King and Soule, 2007). As documented by his press agent, E. H. Heinrichs (1931: 24), although Westinghouse was pilloried as an agent against humanity by Edison and his allies, the industrialist earnestly believed that his ''moral reputation'' and ''business reputation'' were too well established to be damaged by the misinformation being spread in the campaign. Moreover, Westinghouse had rational logic on his side—he knew AC was superior to DC: ''To defend ourselves through the newspapers may give the impression that, after all, we have something which needs a defense. This is not the case'' (Heinrichs, 1931: 24). While there was an element of bravado in this stance, third-party sources, such as *Electrical World* (1886: 151), confirmed that the Westinghouse name was ''prominently and honorably associated with inventions and developments in the arts and sciences.'' Westinghouse was also a man of principle—''a man with soul'' (Terry, 1936: 2), well respected by his peers (Verity, 1936; Smith, 1939), who ''never would hit below the belt'' (Heinrichs, 1931: 24). He believed that ''by letting the others do all the talking, we shall make more friends in the end than if we lower ourselves to the level of our assailants'' (Heinrichs, 1931: 24).

This initial response to ignore the campaign had limited viability in the face of a sustained assault. As Edison's campaign began to gain traction with the targeted audiences of politicians and the media, Westinghouse had to reevaluate his options.

Jousting. When ignoring Edison's campaign against him proved insufficient, Westinghouse began to adopt some of the tactics Edison and his allies had used, such as obfuscation, and others that were intended to counter Edison's campaign, such as attacking the messenger and attacking the tactics. All were focused on contesting the narrative that AC = danger.

Imitative tactic: Obfuscation. There is evidence that Westinghouse, like Edison, engaged in obfuscation in the effort to distance AC from prisoner executions in the minds of customers. One use of this tactic centers on a lawsuit brought by the convicted murderer Kemmler, who tried to block New York

State from using electricity for his execution as a violation of his constitutional right to be free of ''cruel and unusual punishment.'' Various botched hangings had shown that executions were fraught with uncertainty, which is why the state began investigating alternatives. But there was also no precedent for determining the efficacy of electrocution (Banner, 2002), and thus Kemmler sued. He was represented by W. Bourke Cockran, an esteemed New York lawyer and former U.S. congressman whose fees were beyond Kemmler's means. The question of who was paying those fees led to speculation that Westinghouse was involved. As the *New York Times* (1889f: 4) noted during the trial, ''[T]he case of Kemmler is a mere pretense. The people whose interests are really at stake, and who have instigated able and expensive counsel to attack the constitutionality of the law, are the patentees of the apparatus proposed to be employed in public executions.''

In response to articles connecting him and his firm with the Kemmler case and with legislation to abolish capital punishment, Westinghouse issued a public denial (*NYT*, 1890b), and our examination of Westinghouse's ledgers and Cockran's private papers could not conclusively confirm his involvement. Circumstantial evidence, however, suggests that outside backing was involved. Even Kemmler's prison warden believed Westinghouse was supporting the appeal (the *World*, 1889c); after all, Westinghouse's chief clerk just happened to be present when a stay of execution was delivered to the prison to allow a Supreme Court review of the case (Caplan, 1977). Coverage of the Kemmler case also detailed how Westinghouse's interests ''were quite willing to give large sums of money for the privilege of having Mr. Edison cross-examined for an hour or so by the astute Mr. Cockran'' (*NYT*, 1889l: 2).

Source documents reveal that Westinghouse used obfuscation in multiple settings. When representatives of the court in the Kemmler case went to Edison's lab to conduct some tests, for example, Cockran's assistant arrived in the company of a young man later revealed to be a Westinghouse employee (*NYT*, 1889a). And in a different context, when Edison appeared before the Virginia Senate committee regarding his proposal to cap voltage levels, Westinghouse sent the president of Stevens Institute to represent his interests (Hughes, 1983: 108). Thus, like Edison, Westinghouse used surrogates as a means of obfuscating his direct involvement in defense of his own interests.

Imitative tactic: Resource denial. The second tactic Westinghouse used to thwart Edison's campaign was denial of the key resource Edison and his allies needed to escalate their efforts to get New York State to utilize AC to execute a human being. This resource was an AC dynamo: a generator manufactured by Westinghouse's company. AC sellers joined forces to deny the sale of an AC dynamo for the ''ignoble'' use of executing criminals (*NYT*, 1889k: 1).

At the same time, Westinghouse began to publicly belittle his own AC system as unreliable—a curious position for someone trying to sell it to paying customers. Because the U.S. Constitution forbids ''cruel and unusual punishment,'' it was vital that politicians believe that a new method of execution would not be tortuously painful. If Westinghouse and allies could create an air of doubt regarding AC's reliability for killing someone quickly, and if they could insinuate the potential for a heightened likelihood of suffering, legislators might refuse to adopt AC for executions—an obvious benefit for Westinghouse, who sought to present his electricity as safe for use in homes. During the case, Westinghouse's expert witness, Franklin L. Pope (who,

ironically, died of accidental electrocution by AC in 1895), testified that AC was so unreliable that "[o]ne man might be killed outright by the current, while another might only be injured by it" (*NYT*, 1889g: 8). The goal of this testimony was to convince the judge that using AC for executions should be deemed unconstitutional (*NYT*, 1889j).[3]

Counter-tactic: Attacking the messenger. Our analysis suggests Westinghouse also saw value in discrediting the sensational media coverage sustaining Edison's campaign. When Brown made his initial claims against AC, for example, Westinghouse responded in several op-eds (*NYT*, 1888d; the *Sun*, 1888):

> It is generally understood that Harold P. Brown is conducting these experiments in the interest and pay of the Edison Electric Light Company; that the Edison Company's business can be vitally injured if the alternating current apparatus continues to be as successfully introduced and operated as it has heretofore been; and that the Edison representatives from a business point of view consider themselves justified in resorting to any expedient to prevent the extension of this system. (The *Sun*, 1888: 5)

Soon after, Westinghouse's concern about the gains Edison was making with his campaign was made more explicit when, in expert testimony on using AC for criminal executions, the "Westinghouse Company objected to its system being used . . . because such 'exhibitions' would be calculated to make the commercial public regard the system as dangerous in practical use" (*NYT*, 1889c: 8).

Increasingly, Westinghouse was determined to undermine the credibility of the surrogates Edison was utilizing to advance his case. Initially, he publicly contested the claims by Brown and Edison separately, asserting they were technically untrue and should be dismissed (the *Sun*, 1888: 5). Later, he zeroed in on Brown. As Brown (1889b) reported:

> A bogus Herald reporter was sent to me last week who refused to give his name and wished to know what right I had to sell W. dynamos and imperiously demanded when I bought the machines, and who was entrapped into betraying a knowledge of the W. system, which was beyond a reporter's depth. . . .

Later, in court, "Mr. Cockran started in with questions about Mr. Brown's standing as an expert. Mr. Brown said that he was an electrical engineer, but admitted that he was not a member of the American Institute of Electrical Engineers" (the *Sun*, 1889c). While coopting prestigious actors supports a campaign by enhancing the legitimacy of the underlying narrative, attacking the messenger serves the opposite purpose—to undermine the legitimacy of key actors and cast suspicion on their message.

Counter-tactic: Attacking the tactic. As discussed earlier, Edison engaged in activities that appealed to the drama-seeking filter of members of the media, who looked to write stories with sensational content and dramatic details. His experiments provided content that made for excellent reading and also purposely engaged in symbolic activity, such as testing the AC dynamos only in the presence of invited guests (*NYT*, 1889m). To undermine these attempts at giving the media what it wanted, Westinghouse (1888b) directly attacked the

[3] Edison similarly relied on resource denial by repeatedly using courts to serve injunctions against Westinghouse's use of Edison's inventions (Petit, 1954).

tactic itself, highlighting the symbolic nature of the experiments in the *Evening Post* in December 1888: ''The parts brought under the action of the current were not only those most easily affected by it, but were so carefully placed in the circuit as to receive a shock such as would be utterly impossible if the current were applied in any ordinary or accidental manner.'' Westinghouse (1889) used the same counter-tactic in an article in the *North American Review*, written in response to an article by Edison (1889) in the same publication. Westinghouse used technical arguments to counter claims that AC was unsafe, citing the converter placed on customers' premises as ''an impassable barrier, through which none of the high-tension street currents can pass, and which absolutely protects the consumer against injury or fire'' (*NYT*, 1889b: 3).

By attacking the tactic, Westinghouse sought to undermine Edison's exploitation of the media's drama-seeking filter. In doing so, he demonstrated his own mindfulness to others, particularly to the media's search for newsworthy content. Unfortunately for Westinghouse, the technical claims were virtually impossible to prove and fell on deaf ears as the number of deaths from accidental electrocutions mounted (Board of Electrical Control, 1888b). Edison's feeding of the drama-seeking filter was gaining traction, while Westinghouse's rebuttals merely invited Brown to rerun his experiments using new specifications, creating additional evidence documenting death by AC.

In the end, Westinghouse's tactics of ignoring and jousting with Edison's campaign proved fruitless. On August 6, 1890, Kemmler was put to death in an electric chair powered by Westinghouse's technology, in what was called a ''legal roasting'' (the *World*, 1890b: 1) and an ''utter scientific failure'' (the *Sun*, 1890b: 2). The execution required two attempts, the latter of which singed the electrode at the base of Kemmler's spine (Ruddick, 1998). ''Then the body began to smoke and the death chamber was filled with the odor of burning flesh. Some of the witnesses nearly fainted and had to be assisted from the room'' (the *Sun*, 1890b). This event did not end the war of the currents, but as the nation's first (bungled) electrocution, it influenced public debate for years to come (the *Sun*, 1889c; *NYT*, 1890c), with some wondering whether use of AC dynamos would continue (the *World*, 1890b).

Spearheading. While any competitor can ignore or contest a campaigner's claims against it, we observed a decision by Westinghouse that upended the war of the currents that, to this point, Edison had been both defining and winning. Westinghouse decided to spearhead his own campaign based on the scalability of AC relative to DC. This was the original dimension that brought Westinghouse into the market after discovering the limitations of DC during Edison's initial display in New Jersey (Westinghouse, 1910a; Wilcox, 1971). Replacing Edison's preferred dimension of danger with scalability altered the trajectory of the war in Westinghouse's favor.

Just as Edison's decision to spearhead a campaign around the danger of AC was catalyzed by an exogenous opportunity, Westinghouse's decision to spearhead a campaign also came from an external source. In 1893, Westinghouse was approached by the organizers of the World's Columbian Exposition about taking over a bid to illuminate the city of Chicago (Skinner, 1934). The organizers requested that Westinghouse post a bond that his bid would not exceed that made by Edison, who had lost the bid to an individual who the organizers

feared could not deliver the promised illumination in time (Skinner, 1934). Westinghouse responded by submitting a bid that was half Edison's bid (Sajna, 1993).

Just like Edison, Westinghouse was mindful of the media's need to find newsworthy stories. So he chose to make his Chicago illumination one of the grandest presentations of AC's superiority by delivering the largest single illumination in history (Petit, 1954; Scott, N.D.). It was ''the first demonstration of a complete system of generation, transmission, and utilization for all types of service, direct and alternating, ever shown'' (Skinner, 1934: 21). Westinghouse (1893) later told shareholders to consider the small loss he incurred in the display as an advertising cost.

When Edison learned Westinghouse had won the bid, he got an injunction to prevent the use of his lamps (Petit, 1954), a clear attempt at resource denial. Undeterred, Westinghouse invented a completely new lamp—the stopper lamp (Skinner, 1934). ''These lamps not only do not infringe the Edison patent . . ., but they are fully covered by patents of our own,'' claimed Westinghouse (1892) in a special letter to electric companies. Westinghouse also personally taught employees how to build the lamps and guided production of 250,000 units in just a few months (Skinner, 1934; Petit, 1954). Westinghouse's ability to scale his technology beyond anything Edison had done before—and at lower cost—clearly played a decisive role in shifting perceptions of commercial customers and other influential observers, such as the eminent physicist Lord Kelvin:

> You see, right at this time some promoters at Niagara were planning to harness the great power of the Falls and turn it into electric power. But they weren't sure which way to go. On the very day the Fair opened, Lord Kelvin had cabled the Niagara people from London, ''Trust you avoid the gigantic mistake of alternating current.'' But when Lord Kelvin saw what we did at the Fair, he changed his mind and became one of our strongest champions. (Ruch, 1984: 1399)

The success of his Chicago display before 20 million visitors effectively ended the war of the currents, ''remov[ing] the last serious doubt of the usefulness to mankind of [AC]'' (Prout, 1921: 140). Westinghouse's victory was complete when Edison himself began selling AC systems. ''The Alternating Current system of electrical distribution, according to the latest statistical records, furnishes more than 98% of all the electrical energy which is used at present in the service of the human race, while the direct current system acts in a few instances as an auxiliary, or as an adjunct'' (Heinrichs, 1931: 24).

DISCUSSION

Drawing on insights from our data analysis, we show how understanding impression management campaigns in a competitive context alters our understanding of existing theory and practice. First, the chronology that emerges from this market conflict consists of distinct stages populated by a campaigner, a competitor, and a target audience as opposed to only an organization and audience. Second, decisions by the campaigner and competitor are characterized by conditionality, which revolves largely around the response of the target audience. And third, information filters drive what each actor sees in the

market—an attention to the perceptions of self and others that informs decision making. So while a journalist writing a newspaper article may seek to construct a sensational narrative to attract and retain readers (viewing events through a drama-seeking filter), customers in the market are just trying to find the greatest value at an acceptable price (viewing product offerings through a cost-benefit filter). These insights reveal how audience perceptions become altered and whether audience behavior is congruent with the campaigner's goals. Taking actions that resonate with the information filters of target audiences plays a key role in determining the trajectory or consequences of a campaign.

The characteristics of competition in a market context demand that we consider the reason a firm manages impressions of itself may be that other firms are deliberately trying to alter those perceptions. To win in a market, firms do not need to be the best; they only need to be perceived as better than their competitors by key target audiences. The conclusions we draw from our study of the war of the currents allow us to account for this competitive dynamic within the organizational impression management literature and establish competitive impression management as a distinct focus of theoretical interest.

Competitive Impression Management

The second and third columns of table 1 summarize the two key branches of existing work in organizational impression management: work dealing with threats coming from a specific event, such as the introduction of a new ranking system for business schools (Elsbach and Kramer, 1996), and work dealing with threats coming from non-competitors, such as a social movement organization (King and Soule, 2007) or a regulator (Paternoster and Simpson, 1996). The last column presents the specific ways that competitive impression management is theoretically distinct.

When the threat to impressions shifts from a specific event to an active campaigner, the dynamic shifts from an organization interacting with an audience (a dyad) to an organization interacting with another organization to influence an audience (a triad). The distinction between campaigns waged by non-competitors and those waged by competitors is theoretically important for three reasons.

First, because these campaigner types have different orientations (nonprofit vs. profit), they produce different kinds of campaigns and thus different dynamics. The goal of a non-competitor is usually to modify a firm's behavior, such as stopping animal testing (social movement organization) or curtailing fraud (regulators). The targeted behavior and the campaign tactics employed tend to be motivated by ideology or public policy, respectively. Prior research has shown that activists generally achieve their goals via tools such as boycotts (Friedman, 1985) or protests (King and Soule, 2007), while regulators use sanctions or the threat of legislation (Paternoster and Simpson, 1996). In contrast, the goal of a competitor is to prevail over the rival firm in a given market (e.g., for sales or key employees). The threat to impressions may be one-dimensional, such as when Lexar Media campaigned to distinguish its products in terms of speed (Tripsas, 2005), or multi-dimensional, as was seen in Microsoft's attack on Linux that shifted from safety to difficulty of use and then to costs (Moody, 2006). Non-competitors do not enjoy that level of freedom; moving too far from their mission risks losing supporters in ways that can

Table 1. Competitive vs. Organizational Impression Management

	Organizational impression management		Competitive impression management
Source of threat	Specific event	Non-competitor	Competitor
Example	Introduction of new ranking system (Elsbach and Kramer, 1996)	Non-market participants (e.g., social movement activists; King, 2008)	Market participants (e.g., GM vs. Ford)
Perceptions being managed	Perceptions of self	Perceptions of self	Perceptions of self and others
Nature of actor dynamics	Dyadic	Triadic	Triadic
Goal of campaigner	N. A.	Behavioral change (e.g., cease using child labor)	Market displacement (e.g., exit of target from market)
Dimensionality of threat	Unidimensional (e.g., mad cow disease outbreak; Elsbach, 1994)	Unidimensional (e.g., sweatshops; Harrison and Scorse, 2010)	Unidimensional (e.g., Lexar Media ''push campaign'' on speed; Tripsas, 2005) or Multi-dimensional (e.g., Microsoft vs. Linux regarding safety, difficulty of use, then cost of ownership; Moody, 2006)
Information filter of campaigner	N. A.	Issue salience	Rivalry
Scope of threat	Firm-specific or Industry-wide	Industry-wide	Offering-specific or Firm-specific
Feedback to campaigner	N. A.	Indirect via portrayals	Direct via purchases and Indirect via portrayals

threaten a movement's or organization's existence (Rowley and Moldoveanu, 2003; Badano et al., 2014).

Second, applying existing organizational impression management theory to a competitive context generates erroneous conclusions. Applying a competitor metric of success to a non-competitor requires exit from the market—it is a threat that alters the way a non-competitor campaign would be received and reduces the chance of concessions (cf. King, 2008), which are a vital route to behavioral modification for non-competitors. A social movement organization usually seeks to stop a given practice at all firms rather than at one particular firm. If the market is undesirable (e.g., the fur market or the drug trade), neither social movement organizations nor regulators are looking for firms to abandon the market so they can take it for themselves. Yet that is precisely the goal of a campaigner in a competitive impression management campaign, in which diminishing how a competitor is perceived—both absolutely and relative to the campaigner—is tied intimately with market displacement. Edison spent a tremendous amount of capital to develop DC and to ensure it was safe by burying cables in New York City (Board of Electrical Control, 1888a: 245–246). By attacking the safety of AC (the *World*, 1889b), Edison had no interest in delegitimizing electricity but every interest in disparaging his rival's version of it.

Third, campaigners that are competitors gain direct feedback from their customers (purchases) and indirect feedback through the media (portrayals); the

former is unavailable to non-competitor campaigners, who must rely solely on feedback through the media, if it is available at all. Negative media portrayals lead to less favorable market outcomes for firms (Sutton and Callahan, 1987), which may include customer or partner withdrawals (Jensen, 2006; Sullivan, Haunschild, and Page, 2007). These outcomes are material and highly salient for firms (Donohue, 2002). We suspect that an awareness of how portrayals and purchases influence each other drives firms to try to shape their portrayals. Some managers admit to cutting R&D spending and changing the timing of decisions to meet their firms' earnings expectations (Graham, Harvey, and Rajgopal, 2005); they know that portrayals by intermediaries can unduly influence both the price and trading volume of their stock (Ryan and Taffler, 2004). Favorable portrayals can also affect CEOs' job security, executive compensation, and board composition (Bednar, 2012). In contrast, when a firm receives negative coverage from an equity analyst, CEOs have been known to retaliate to deter other analysts from doing the same (Westphal and Clement, 2008). This retaliation—usually exercised through limiting access—is worse for journalists who craft negative portrayals of a firm and can also be further sanctioned by the CEOs of other firms (Shani and Westphal, 2016). In short, competitors care about the potential negative connection between portrayals and purchases in ways that non-competitors do not. Thus they will seek to mitigate negative portrayals of themselves (via traditional organizational impression management) to ensure that potential purchases go unhindered, but they will also encourage negative portrayals of rivals (via competitive impression management) to ensure that potential purchases of their rivals' offerings suffer.

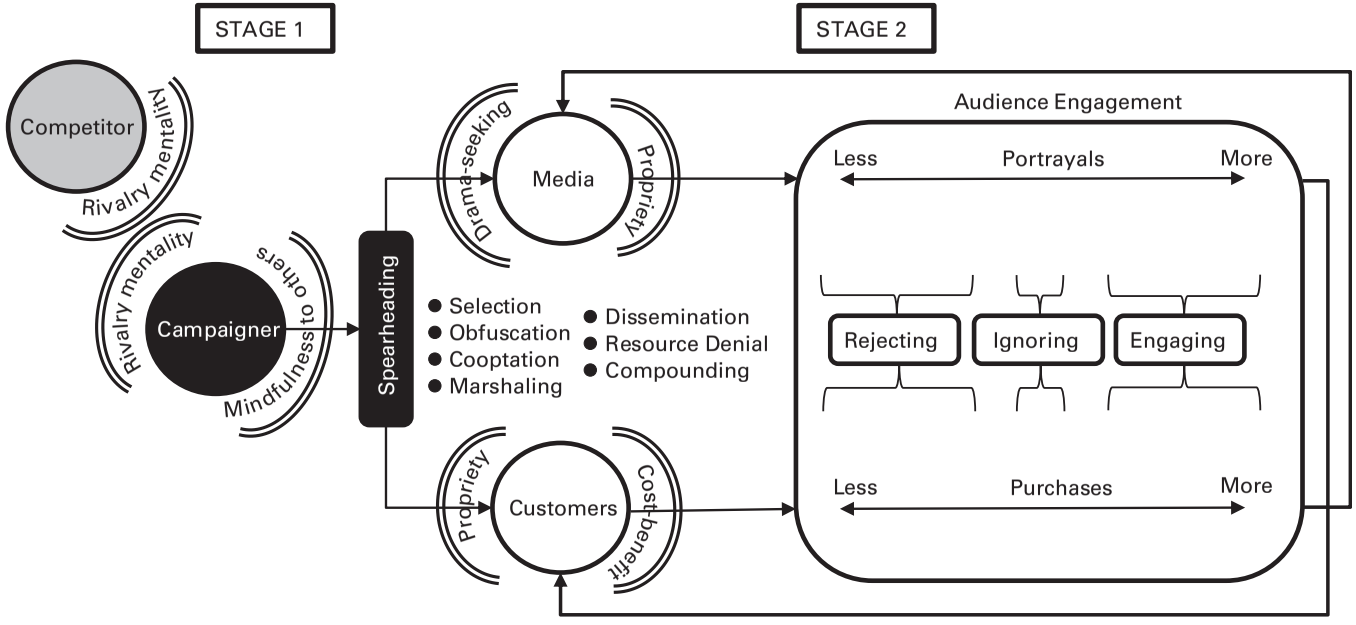
While the extremes to which Edison went to attack his rival should give pause to most readers, a perusal of the business news on any given day reveals similar behavior. Whole Foods Market's CEO John Mackey used an alias on Yahoo Finance's bulletin board for seven years to post comments that maligned rival Wild Oats Markets while boosting perceptions of his own firm (Martin, 2007). Both Uber and Lyft claim the other secretly ordered and canceled thousands of rides to increase their rivals' operating costs and frustrate their customers (Lawler, 2014). Firms regularly steal from and spy on each other (U.S. Department of Justice, 2016), fund fake research to mislead political actors and customers (Orihuela and Penty, 2014), and bribe the media for desirable portrayals (Jan, 2015). Such examples bolster the naturalistic generalizability of our findings (Stake and Trumbull, 1982), allowing us to shed new light on prior studies and formally extend organizational impression management into a competitive context.

The Anatomy of a Competitive Impression Management Campaign

Although one cannot generalize statistically from a single case, we can abstract from our findings to generate theoretical insights. Figure 3 captures the key dynamics of a competitive impression management campaign.

Within the realm of traditional organizational impression management, the threat to perceptions has already grabbed stakeholders' attention, catalyzing the focal firm's attempts to mitigate unfavorable impressions (Elsbach, 1994) or engender favorable ones (Milne and Patten, 2002). In contrast, for competitive impression management, the focal firm is the campaigner that tries to alter the perceptions held by the target audience. To help increase its chances of

Figure 3. A model of competitive impression management campaigns.*



* Half circles represent information filters, single-sided arrows show information flow, double-sided arrows show continuum of audience engagement level from less to more engagement, and bullets denote tactics.

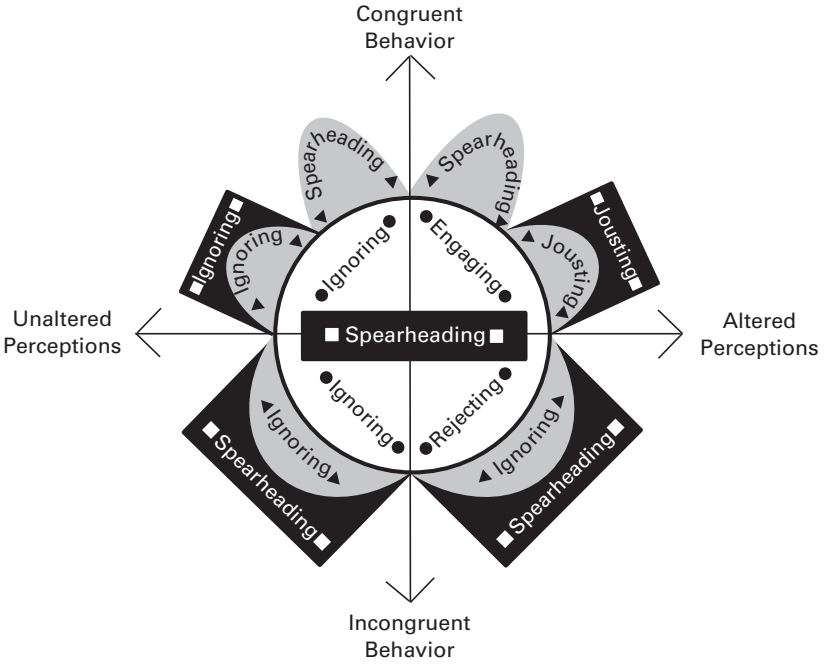
success, the campaigner acts deliberately, conscious of how both its actions and their consequences will be interpreted. For firms in market environments, a strong ''rivalry mentality'' focuses attention on which other firms pose the greatest threat. This mentality drives the campaigner to want to be preferred both objectively and relatively by customers, as well as by intermediaries that might further influence customers, such as the media. As a result, firms are mindful of what both customers and the media are looking for and attempt to exploit those needs. To be clear, a competitive impression management campaign is launched only in response to a competitive threat.

This mindfulness to the information filters used by others informs the focal firm's tactics as the firm initiates a competitive impression management campaign against a competitor. The campaigner selects a dimension of the product or service being offered to contest, which it hopes will resonate with the target audiences. To ensure that it does, the campaigner exerts effort and marshals resources to enact the campaign and wants to ensure that the target audiences see the fruits of those efforts by disseminating them. When fearful that audiences might not embrace the campaigner's involvement, the campaigner might hide its involvement or try to involve others as unwitting compatriots who legitimize the actions and their outcomes in the eyes of observers. The campaigner might want to impede the competitor's ability to respond by denying it key resources and might seek to create a multiplicative effect by engaging in more than one campaign at the same time. While we do not claim that these tactics are exhaustive or necessarily always present, they were all central to the war of the currents.

We also extrapolate from our findings that campaigners intuitively understand that the media seek dramatic content around which stories can be crafted but also may ignore or turn against the campaign. The campaigner wants the media to embrace the content along the dimension selected for the campaign. For the media, the drama-seeking filter focuses attention on what its customers might desire so it can attract purchases in the form of sales, subscriptions, and advertising. Prior research has shown that the media avoid publishing stories that attribute outcomes to anonymous social, economic, or political forces, preferring dramas with great actors who live among us and make history (Katz and Dayan, 1986: 135). Thus the drama-seeking filter takes into account the reactions of potential readers and ad buyers, who are known to curtail spending when customers become outraged (Arceneaux, 2012) or when content is objectionable (Shaban, 2018). The news can therefore be framed (Hallin, 1989; Rosen, 2009) as part of a legitimate debate when its content is acceptable or as something to be condemned when it is not. Mindfulness to the way the media filter and interpret information allows the campaigner to select different tactics to deliver its campaign against a competitor.

Further, we extrapolate from our findings that campaigners understand that customers usually evaluate information in terms of its value implications and, like the media, can ignore or turn against the content, such as when customers feel that a producer has acted inappropriately. It is logical to presume that, as individuals or organizations looking to purchase goods and services in the market, customers are more likely to purchase items when the benefits of purchasing outweigh the costs. The customer lies at the heart of the market system (Lindblom, 2001), and the pursuit of customers drives both competition and

Figure 4. Consequences of a competitive impression management campaign.*



* The campaigner's actions appear in the black rectangles, the competitor's in the gray areas, and the target audience's in the white center circle.

manifestations of competitive behavior, such as competitive impression management.

In all cases, whether the target audience is the media or the firm's customers, the extent of engagement—represented by the continuous scale in figure 3 from less to more engagement, as evidenced by portrayals or purchases—signifies the extent to which impressions have been managed. Whether target audiences reject, ignore, or engage with the campaign indicates the degree to which the campaigner selected the right dimension to contest and used effective tactics. Engaging yields a portrayal (by the media) or purchase (by customers) that is consistent with the campaigner's goals. Ignoring or rejecting a campaign yields portrayals or purchases that are inconsistent with those goals—to the advantage of the competitor. Media portrayals feed back to customers, affecting their purchases, while information about purchases informs portrayals of a firm's market performance. In all cases, there are consequences to an orchestrated competitive impression management campaign that need to be theorized.

Consequences of a Competitive Impression Management Campaign

Figure 4 depicts these consequences and unpacks the degree to which a campaigner has managed impressions of a competitor. Success is determined by the complex interplay of two dimensions: the extent to which perceptions have been altered (x-axis) and the extent to which target audiences' subsequent behavior aligns with the campaigner's goals (y-axis). This suggests a 2×2

matrix in which four possible quadrants exist for each target audience in response to a competitive impression management campaign.

In figure 4, inner layers come chronologically before outer layers, which means that all of the dynamics are catalyzed by the campaigner spearheading a campaign against a competitor (represented by the black rectangle in the center). For the campaigner, the only desired consequences of this effort are the altered perceptions and congruent behavior of the upper-right quadrant, where the target audience responds by engaging with the campaign. If the target audience is the media, this quadrant might represent negative portrayals of the competitor or its offerings. If the target audience is the customer, this quadrant represents fewer purchases of the competitor's offerings and/or more purchases of the campaigner's offerings. We can speculate that if the target audience in this quadrant were shareholders, for example, they might sell off the competitor's stock. Similarly, if the target were politicians, they might add a new tax incentive to purchase the campaigner's products or introduce a new regulatory inspection for the competitor's offerings.

For the campaigner, the lower-right quadrant represents the least desirable outcome of a campaign: audiences' perceptions are altered but not in a way that leads to behavior that advantages the campaigner. Instead, the target audience rejects the campaign content and takes actions that go against the campaigner's interests. For example, the media might condemn the campaign tactics, or customers might reject the campaigner's product offering. These audiences might even come to view favorably the dimension of the competitor that the campaigner tried to portray in a negative light. In this quadrant, the campaign has backfired, and the results put the campaigner at a disadvantage vis-à-vis its competitor.

The quadrants on the left also represent less desirable outcomes for the campaigner and failure of the campaign. After time, money, and effort are spent on the campaign, the target audience's perceptions remain unaltered, as the audience ignores the campaign altogether, and one of two behavioral consequences is observed. In the upper-left quadrant, while the campaign activity is not getting any traction with the targeted audience, the campaigner is at least still benefiting from behavior that advantages it over its competitor. This outcome is fortuitous, but the campaigner still bears the cost of the failed campaign. The result reflected in the bottom left quadrant is worse, as the audience is engaging in behavior to the disadvantage of the campaigner.

Clearly, the target audience's response to the campaign is key to the subsequent consequences for both the competitor under attack and the campaigner who initiated it. This is why mindfulness to others is such a crucial filter for both of them. Actions that resonate with the information filters of target audiences determine the trajectory of a campaign's consequences. Each possible response also has further implications, setting in motion activity that in the war of the currents occurred in Stage 3. In this way, chronology, conditionality, and information filters are revealed as essential to understanding competitive impression management.

Competitors' responses to a successful campaign. While the upper-right quadrant of figure 4 represents immediate and visible success for the campaigner, it does not represent the end of the campaign or its ultimate success.

If the campaign does not result in the immediate displacement of the competitor, the competitor can choose to respond to the threat and faces a choice of how to do so. Ignoring the threat allows the success to continue and might lead to the competitor's demise, so doing nothing is not a rational option. Rather, a competitor will likely choose to contest the existing dimension of the campaign or to select an entirely different dimension and initiate its own campaign.

If the competitor perceives that the threat is not great, it will likely choose to contest the claims made against it by jousting with the campaigner to influence audiences' perceptions and behaviors. When this happens, the competitor can imitate the tactics used by the campaigner or use different counter-tactics. As an example of the latter, after the leading yogurt brand in Mexico saw sales decline when an entrant claimed the brand caused weight gain, the leader decided to counter the claims, attacking the campaigner's tactic (MillwardBrown, 2009).

If the threat appears severe, however, the competitor is more likely to respond by spearheading a new campaign. The goal of this response is not unlike the goal of the original campaigner: to identify a dimension of the product or service being offered in the market and to sway audiences to make decisions that advantage the campaigner over the target. When a competitor chooses spearheading, a role reversal takes place, as the competitor becomes the campaigner and the campaigner becomes the competitor. Thus competitive impression management campaigns are complex, iterative, and malleable.

Competitors' responses to an unsuccessful campaign. From the competitor's perspective, the lower-right quadrant in figure 4 represents the most desirable outcome of a campaign: while the campaigner bears the campaign costs, the target audience rejects the campaign and behaves in ways incongruent with its goals. Facing this outcome, a competitor will likely choose to ignore the campaign being orchestrated against it. In choosing not to react, the competitor is enacting the advice of Napoleon Bonaparte to ''never interrupt your enemy when he is making a mistake.'' While a non-response might appear passive on the surface, it can represent an exercise in agency for the competitor. Prior work at the individual and group level of analysis has documented the powerful agency of a ''non-response'' response (Griffin, 1993; Ashforth et al., 2007; Cole, 2015), and our research suggests that this agency extends to organization-level dynamics as well. We also speculate that the campaigner, faced with results in this quadrant, could look for ways to spearhead a new campaign.

Turning to the left-hand side of figure 4, because the competitor is benefiting from the campaigner's poor luck or incompetence in orchestrating a campaign, there may be little benefit for the competitor to respond. This is certainly true in the lower-left quadrant. In the upper-left quadrant, however, there could be reason for the competitor to respond, as the campaigner is enjoying the audience's behavior in spite of the campaign's lack of success in altering perceptions. The competitor, remaining mindful of the constant rivalry mentality with the campaigner, might be inspired by the campaigner's continued net performance gains to engage in spearheading its own campaign. For its part, because the campaigner is still enjoying audience behavior congruent with its campaign goals, it likely would cease campaigning (saving the associated costs) and

simply continue to reap the benefits of the audience's behavior if the campaign resulted in this outcome.

Taken together, figures 3 and 4 present a robust picture of a competitive impression management campaign and its potential consequences, demonstrating the importance of chronology, conditionality, and information filters in determining competitive impression management dynamics.

Limitations

Our model is derived from a single historical case study, which by definition is context specific and limits generalizability (Siggelkow, 2007). The campaigns took place in the U.S., which differs normatively from other markets. In South Korea, for example, direct comparison ads are ethically undesirable and not truly believable (Lyi, 1988); in the U.S. they are common and resonate strongly (Barry, 1993). Thus the propensity to engage in competitive impression management will depend on the cultural context. The legal environment may also affect firms' inclination to pursue campaigns. French courts have banned firms in the past from disparaging rivals' goods (Romano, 2005: 379), which reinforces the idea that legal regimes matter in creating jeopardy for campaigns.

Because our research context is particular to both a time and place in history, our inventory of tactics is not necessarily comprehensive; moreover, their coding and interpretation reflect specifics of their provenance. Our goal in searching the archives of Edison, Westinghouse, and other actors in the war of the currents, as well as contemporary newspapers and other documents, was to be comprehensive in our data collection. And by remaining open-minded about which methods would best help us understand our data, we discovered nuance we would not have discovered had we applied only one methodology.

One shortcoming of our representation of the consequences of competitive impression management campaigns in figure 4 is that we do not subdivide each of the possible audience types and contrast their reactions when they are not congruent. For example, Westinghouse's progression from ignoring to jousting to spearheading as the war of the currents unfolded was revealing: it was done not in response to adverse changes in current purchases by electric companies, which were increasing steadily for Westinghouse and AC (and thus incongruent with Edison's campaign goals), but in response to repeated adverse media portrayals that threatened the possibility of future purchases (congruent with Edison's campaign). We also speculate that Edison's reticence to spearhead a new campaign around a different dimension was probably because he was receiving positive market signals (supportive media portrayals and purchasing decisions from politicians) while also receiving negative market signals from his allies. So while we know that organizational attention and search can be triggered by performance feedback (Greve, 2003), we speculate that there may be a tipping point for more symbolic feedback, such as media portrayals. Low levels may be managed for a time, particularly if the target can "buffer" the threat (McDonnell and King, 2013). If left unaddressed, however, portrayals that key audiences perceive as negative may threaten future purchases. Only future work can explore which is more important and why.

Reflections and Extensions

Our findings complement prior work (Hoffman and Ocasio, 2001) that has argued the reason why individuals and organizations selectively attend to certain events in the environment and ignore others is driven not by the objective characteristics of the event but by the event's enactment in the environment (Weick, 1979). Hoffman and Ocasio (2001: 415–416) specified three principles of attention-based perspectives: (1) individuals, organizations, and industries attend to some events while ignoring others (selective attention), (2) actors' attention is situated within communication channels through which actors interact with others (situated cognition), and (3) how actors think and attend to events is a socio-cultural process ''shaped by the group, organization, industry, and organizational field'' (structural determination of attention). Our findings extend theory on the origins of industry attention and its connection to threats to perception by suggesting that attention is curated by organizational actors who perceive the world through their own filters and remain mindful of how others do the same.

The insights we present on the role of information filters are particularly relevant for work on audiences and how campaigns resonate with them. Prior research has found that when campaigns are framed in ways that align with an audience's interests, they are more likely to succeed (Kahl and Grodal, 2016). Obviously, ensuring its customers do not die when using a product or service is in every firm's interest, and Edison did succeed in getting AC adopted for use in executions. An important question is therefore why Edison failed to win in the market by moving customers away from AC. Prior work (Snow and Benford, 1992) has suggested there are three factors that primarily determine whether a campaign will resonate with an audience. First is that any claims are based on evidence: as we showed, Edison and his allies actively worked to create and disseminate incriminating evidence about the danger of AC, which was covered by the media. Second is that the claims ring true: again, there were gruesome portrayals of deaths in the press. And third is that the problem intrudes into everyday life: while Edison and his allies attempted to capture this by coopting observers in the experiments, perhaps law-abiding citizens did not see a parallel between themselves and convicted criminals. What is more, Westinghouse's spearheading on scalability, which showed the benefits of AC over DC for homes, may have intruded into the public's lives more effectively than Edison's campaign did. This suggests that the third factor, relevance to daily life, may have an effect both when it is absent and present, a finding that pushes back against prior work that concluded the first factor matters most to audiences (Babb, 1996).

One benefit of a historical case study is the ability to observe meaningful choices over time that are unobservable when viewed contemporaneously. In their study of activists, McDonnell and King (2013) found evidence of a buffering mechanism and threat-amplification mechanism in the response of the targeted firm, but there is no evidence of the same firm cycling through both options (or others) as a campaign evolved. In contrast, our case reveals the competitor initially ignored the campaign, articulating a belief in his reputation as a shield (i.e., buffering). Later, as the campaign began to garner support, the target shifted to jousting, directly attacking both the claims and the claimants to disrupt the emerging narrative. Still later, the target shifted to spearheading

his own campaign around a new dimension—scalability, which allowed him to attack on his own terms to great effect in the market. While targets need not cycle in the same order or direction as Westinghouse (ignoring to jousting to spearheading), we hope future research will explore the applicability of our theory, opening the possibility of generalizing our findings to other contexts (Stake, 2005).

Organizations engage in impression management not because shaping perceptions holds intrinsic value but because it can mobilize important stakeholders. Positive perceptions can engender customer loyalty (Keiningham, Aksoy, and Williams, 2009), for example, even in the face of scandal (Hirschman, 1970). It is this mobilization that is desired, irrespective of the source of the threat, but particularly in a competitive context. Knowing that different media outlets have different positions, campaigners can tailor their events to elicit specific reactions, which can be exploited to further the campaigner's impression management goal. A campaigner may troll for negative responses to provoke audiences with the opposite perspective on a contested issue (e.g., Holiday, 2017), a dynamic that our study does not explore. Given the speed of social media today, research that models the trajectory of diffusing campaigns through specific, cognitively encapsulated audiences would constitute a major contribution to the field.

Conclusion

Our analysis of the war of the currents exposes substantive deficiencies in extant theory about how firms manage the impressions of key audiences. Extending impression management theory into a competitive context is essential because, while organizational impression management focuses on attempts to manage impressions held about the ego, competitive impression management explains attempts to manage impressions held about an alter. We have begun to unpack the anatomy of such attempts as well as their potential consequences, which may be surprising to those constructing a campaign. In this case, although Edison's campaign to discredit AC was ultimately unsuccessful, it propelled Westinghouse to produce a more technically sophisticated product to win the war of the currents—a benefit to society that continues to pay dividends today. We believe the theoretical insights derived from our historical analysis present a vital first step in examining competitive market dynamics with impression management implications. Firms understand that economic competition is intense and often zero-sum. As a result, they have an interest not only in creating positive impressions of themselves but also in encouraging negative impressions of rivals. Campaigns launched by a firm against a competitor to influence the impressions of a targeted audience are therefore an essential component of a market-based system.

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Supplemental Material

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