

THE EVOLUTION OF ISSUE INTERPRETATION WITHIN ORGANIZATIONAL FIELDS: ACTOR POSITIONS, FRAMING TRAJECTORIES, AND FIELD SETTLEMENT

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In this study, we seek to understand how actors' interpretations of contentious issues evolve over time within organizational fields and how these interpretations may lead to field settlement. Empirically, we examine how groups of actors in the field of civil aviation interpreted the environmental issues of noise and emissions during the period 1996–2010. Actors employed various cultural frames to interpret these issues as they rose and fell in prominence within the field. We develop a framework to track actors' framing trajectories over time; in particular, the extent to which these frames reveal actors' stance toward buffering versus integrating issues into their core operations. We reveal four prototypical framing trajectories and find that actors' framing trajectories were influenced by the extent to which these actors were directly linked to issues in societal discourse and had direct contact with concerned audiences. Based on our analysis, we build theory of how actor framing of issues evolves over time and leads to field settlement of contentious issues.

U.K. low-cost carrier Flybe blasted environmental activists who staged protests yesterday at Manchester airport, which the airline labeled as “selfish” behavior. “Contrast the actions of seven with the 30,000 who will travel with Flybe in and out of Manchester airport this week and it’s plain where public support rests,” COO Mike Rutter said.

(*Aviation Daily*, October 9, 2007)

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[EasyJet] CEO Andy Harrison called for a mandate for aircraft that bring about a 40% cut in carbon dioxide [CO₂] output. . . . “If we get cleaner aircraft and ground the old smokers, we can reduce the industry’s overall emissions and tackle climate change head on.”

(*Aviation Daily*, December 1, 2009)

Contemporary accounts of organizational fields highlight how contentious issues—such as those pertaining to the environment, corporate governance, or social equity—can galvanize attention and lead to pressure on organizations to change aspects of their behavior. While early statements of neo-institutional theory emphasized the development of common understandings within fields (DiMaggio & Powell, 1983; Tolbert & Zucker, 1983), current organizational scholarship highlights processes of reality construction and meaning contests (Ansari, Wijen, & Gray, 2013; Kaplan, 2008; Purdy & Gray, 2009). Recent work has uncovered considerable heterogeneity in how issues are interpreted within fields, as well as the potential intractability of contentious issues (e.g., Bundy, Shropshire, & Buchholtz, 2013; Hoffman, 2001a; Lewicki, Gray, & Elliott, 2003; Lounsbury, 2001). As the quotes above illustrate, complex issues may be cast in profoundly divergent ways, creating

debates and contention within organizational fields. In fact, some scholars define fields as “centers of debates in which competing interests negotiate over issue interpretation” (Hoffman, 1999: 351).

Issues can be “defined or ‘framed’ in any number of ways . . . depending on the perspective of those doing the framing” (Mahon & Waddock, 1992: 19). Differences in issue interpretation have variously been explained by organizational-level factors such as culture, identity, and intra-organization dynamics (Dutton, Ashford, O’Neill, & Lawrence, 2001; Howard-Grenville, 2006; Tilcsik, 2010), by the structure of organizational fields (Levy & Rothenberg, 2002), and by cognitive factors at the individual level (Bansal & Penner, 2002; Bundy et al., 2013; George, Chattopadhyay, Sitkin, & Barden, 2006). Relatedly, scholars have explored “menus” of cultural frames or “socially and culturally available interpretations” employed by actors in the framing of issues (Meyer & Höllerer, 2010: 1259). Despite the insights offered by this prior research, much remains to be learned about variation in issue interpretation across actors and over time, particularly in the “presence, scale, and meaning” of the cultural frames employed in interpreting complex issues (Gray, Purdy, & Ansari, 2015; Hoffman, 2001a: 151). Although issue framing is an evolving process, we know little about how and why actors’ framing of issues may change over time. Understanding heterogeneity in and evolution of actors’ interpretation of contentious issues is important because such heterogeneity may preclude reaching agreement on tangible action to deal with socially relevant yet complex issues. Indeed, it is the “backdrop of widely divergent interests and views” surrounding emissions that contributes to making climate change one of the “most intractable issues of our times” (Ansari, Gray, & Wijen, 2011: 70). Debates over contentious issues may (or may not) subside and may (or may not) be replaced by new issues and new debates. We study this dynamic, and ask the following question: *How does issue interpretation evolve over time, and how do organizational fields reach settlement around contentious issues?*

The context for our study is environmental issues in the field of civil aviation. Environmental management is the subject of intense conceptual elaboration by various actors across a number of fields. Within civil aviation, environmental management constitutes a “meta issue” comprising a number of more specific sub-issues. We chose civil aviation as the context of our study because of the vigorous

debate surrounding environmental issues within this field. Civil aviation has evolved from a praised icon of globalization to, for some, a despised symbol of environmental degradation in a surprisingly short time (Randles & Mander, 2009). Aviation has received growing scrutiny and criticism by environmentalists and other observers (Walker & Cook, 2009), generating much debate within the field and making it a promising context for our study. Using fieldwork and content analysis of industry discourse, we tracked evolution in the interpretation of two highly contentious environmental issues within civil aviation from 1996 to 2010—the issues of noise and emissions. Debate over these issues evolved drastically over this period, and we observed a similar temporal pattern of issue interpretation across the two issues as they moved from emergence to settlement.

Drawing on our findings, we make three contributions to the current literature on issue interpretation and settlement within fields. First, we develop a conceptual framework and methodology to track longitudinally the *framing trajectories* that describe the evolution of actor interpretations of issues within fields. We propose the categories of *buffering* versus *integrating* frames to describe the “stance” that actors take toward issues, capturing the extent to which actors deny (thereby, buffering) or accept (integrating) these issues as part of the core operations of the field. Using this framework, we describe four prototypical framing trajectories: (1) integrating dominant, (2) buffering dominant, (3) mixed, and (4) buffering to integrating. Our framework and typology add to current conceptualizations of framing by identifying patterns of change in frame usage over time.

Second, we offer a novel way to conceptualize actors’ position within fields, and posit that these positions influence actors’ framing trajectories. Specifically, we differentiate between “front-stage,” “middle-stage,” and “backstage” positions, based on the extent to which actors are directly linked to issues and the extent to which they have direct contact with concerned audiences. Our resulting conceptualization of actor position differs from prior work that locates position in resource endowments (Leblebici, Salancik, Copay, & King, 1991), social identities (Creed, Scully, & Austin, 2002; Meyer & Höllerer, 2010), status hierarchies (Phillips & Zuckerman, 2001), or in socially constructed “categories of identity” negotiated through discourse (Maguire & Hardy, 2009). Explaining how actors’ positions are reconfigured around salient issues, and how these

positions influence framing trajectories, allows us to better understand the evolution of framing activity within organizational fields.

Third, we identify a path to field *settlement* surrounding contentious issues. Unlike prior research that has examined the antecedents of settlement at the organizational level (Helms, Oliver, & Webb, 2012), we focus on processes leading to settlement at the level of the field. "Field settlement" occurs when field actors agree on a common framework to deal with the issue, thereby allowing the field to return to a "generalized sense of order and certainty" (Fligstein & McAdam, 2011: 10). We contend that field settlement is more likely to happen when the actors most exposed to an issue (front-stage actors) shift from buffering to integrating frames. Put another way, without a shift by front-stage actors to integrating frames, we would not expect field settlement to occur but rather contestation to continue. In this way, we intimately link field-level settlement to actor-level interpretations and thereby avoid reifying or disembodiment issues from actors.

Immediately below, we provide additional theoretical background and motivation for our study. We then describe in detail our empirical context and methods. Next, we present our findings, followed by our theoretical insights. We conclude with a discussion of the implications of our work, its limitations, and some avenues for further research.

THEORETICAL BACKGROUND

In a general sense, "issues" can be defined as "developments, events, or trends" that are deemed consequential for organizations (Bansal & Penner, 2002; Dutton & Dukerich, 1991; Dutton & Jackson, 1987). Although early research tended to reify issues and dissociate them from the actors that deal with them (e.g., Downs, 1972; Wartick & Mahon, 1994), more recent formulations conceive of issues as "socially constructed disruptions of an institutional order that structures purposeful exchanges between actors" (Lamertz, Martens, & Heugens, 2003: 82). Issues entail "episodes of contention/crisis" involving a "shared sense of uncertainty" among field actors (Fligstein & McAdam, 2011: 9–10). Considerable research has focused on how corporate actors respond to such "disruptions," which may entail regulatory pressure (Hoffman, 1999, 2001a; Okhmatovskiy & David, 2012), legitimacy threats (Elsbach, 1994), and/or protests by activists or social movements (King & Soule, 2007; Waldron, Navis, & Fisher, 2013). Following Oliver's (1991) landmark work,

organizations are no longer depicted as passive "responders" facing a dichotomous choice to comply or not with top-down demands from the environment. Rather, organizations are seen as enacting their environment as much as they are enacted upon by other actors in that same environment (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011). As such, issues entail an "ongoing sense-giving battle" (Lamertz et al., 2003: 82) in which actors "filter and alter environmental demands" and "transmit their interests back towards the field" (Wooten & Hoffman, 2008: 136).

Because issues do not have an objective meaning attached to them (Bansal & Penner, 2002; Dutton et al., 2001; Gray, 2003), they are given meaning through "framing," a process of reality construction consisting of the labeling of a specific present experience using frames and categories derived from past experience (Cornelissen & Werner, 2014; Weick, 1995). "Frames" are cognitive schemes that guide the attribution of meaning to specific social situations and guide future action (Benford & Snow, 2000; Brummans, Putnam, Gray, Hanke, Lewicki, & Wiethoff, 2008; Kaplan, 2008; Rao, Morrill, & Zald, 2000). Early research emphasized the *interpretative* function of frames, and their role in supporting the classification of new experiences in established meaning categories and in guiding individual decision making (Tversky & Kahneman, 1981). Scholars have focused on the organization's internal environment (Dutton & Jackson, 1987) or on individual cognition (George et al., 2006; Tversky & Kahneman, 1981) to explain variation in issue interpretation, and ultimately to explain variability in organizations' responses to issues. Accordingly, much of the research on issue interpretation has examined the extent to which organizations (or their members) interpret issues as important, pressing, or as opportunities or threats (Dutton & Jackson, 1987; George et al., 2006; Kennedy & Fiss, 2009).

Building on Hirsch (1986), Hoffman (2001a: 146) advanced a related conception of framing as the invocation of cultural symbols, and proposed that issues—in his study, environmental protection—can be seen as "a composite of many cultural frames." Such frames are drawn from the cultural environment and are invoked by actors in specific contexts, allowing them to assign meaning and create shared understanding of ongoing experiences and events (Goffman, 1974; Hirsch, 1986; Hoffman, 2001a). In this perspective, issue framing involves not simply assessing the importance and urgency of an issue,

but, rather, constructing the very nature of the issue itself (Gray, 2003; Hoffman, 2001a).

Hoffman (2001a) listed eight “cultural frames” through which pressures for environmental protection are interpreted by organizational actors: regulatory compliance, social responsibility, operational efficiency, risk management, capital acquisition, market demand, strategic direction, and human resource management. He postulated that two of these frames—regulatory compliance and social responsibility—have been most commonly used by organizations, and that these frames cast the issue of environmental protection as “external to business interests—a threat or an unwanted restraint on corporate affairs from sources separate from the key drivers of the market system” (Hoffman (2001a: 138). In these frames, “corporations will be expected to do little to protect the environment unless the government forces them or activists shame them” (Hoffman (2001a: 138). The six other cultural frames (operational efficiency, risk management, capital acquisition, market demand, strategic direction, and human resource management), however, cast environmental protection as an opportunity, and “something that is central to the core objectives of the firm” (Hoffman (2001a: 138). Importantly, each group of actors within a field “employs its own language and cultural frame for understanding the issue being debated within the field, [such that] the form of institutional pressure becomes equally diverse in its form and frame” (Hoffman, 2001a: 136).

Other scholars have taken a more strategic view of framing, and emphasize its purposeful aspects. For social movement scholars, in particular, framing is “an active, process-derived phenomenon that implies agency and contention at the level of reality construction” (Snow & Benford, 1992: 136). In this view, frames are negotiated collectively, resulting in meaning contests and periods of heated debate (Benford, 1993; Kaplan, 2008; Meyer & Höllerer, 2010; Zietsma & Lawrence, 2010). During such “episodes of contention,” all field actors “can be expected to propose and seek to mobilize consensus” through framing activity (Fligstein & McAdam, 2011: 10). Much of the research adopting this perspective focuses on when, or whether, contestation subsides. “Field settlement” occurs when a “generalized sense of order and certainty” returns within a field (Fligstein & McAdam, 2011: 10), and when actors develop sufficiently aligned views to allow for common frames to arise even in the absence of complete consensus on issue interpretation (Ansari

et al., 2013). This situation contrasts with cases of intractable conflict, where the same frames “recur repeatedly” and issues remain “frozen into a pattern” that changes little over long periods of time (Elliott, Gray, & Lewicki, 2003: 410).

While the research reviewed in this section represents a remarkable break from the view of fields as isomorphic “iron cages” populated by over-socialized actors (DiMaggio & Powell, 1983), noteworthy possibilities for enhancing our knowledge remain. First, the emphasis noted above on the strategic use of framing neglects the constraints on issue interpretation that exist beyond the level of the individual or the organization. By portraying framing as a skillful and strategic activity, scholars fail to describe how the framers may be constrained or enabled by the social context in which they are embedded (Meyer & Höllerer, 2010; Morris & Staggenborg, 2004; Rhee & Fiss, 2014). Frames “are not tools that actors [can] deploy at will” (Kaplan, 2008: 737), and we need to better understand how actors’ framing is constrained by their social environment.

Second, current models of issue interpretation fall short of capturing the potential complexity surrounding actors’ framing of issues. In particular, with respect to issues that are complex and contentious, actor framing is likely to exhibit more ambiguity (Eisenberg, 1984; Giroux, 2006) than recognized by current models. For example, Sonenshein (2010) showed that the narratives developed by organizational actors to make sense of organizational change combined dialectically opposite frames and categories such as significant–insignificant, or positive–negative. Similarly, in situations of uncertainty created by complex issues, actors may rely on ambivalent and strategically ambiguous framing that mixes opposed categories, rather than on unequivocal categorizations (Dutton & Jackson, 1987). And, despite Hoffman’s (2001: 136) exhortation to attend to the diversity of cultural frames employed by “subpopulations” within fields, we lack understanding of what drives differences in framing across field actors. As a result, field complexity is often depicted as arising from macro logics circulating at the societal level, away from actors’ reach.

A third, related issue concerns the temporal evolution of actor interpretations, and how this evolution might be related to issue settlement within a field. As Ansari et al. (2013: 1018) have noted, “Little attention has been given to what process mechanisms underlie shifts in actors’ frames to

enable consensus around field frames.” Field settlement surrounding an issue happens when field actors accept it as part and parcel of the field and a common framework for addressing the issue emerges (Fligstein & McAdam, 2011; Rao & Kenney, 2008). Helms et al. (2012: 1135) have called for research:

[...] tracking how multiple perspectives on an issue over time reach a potential tipping point in which the possible antagonism of multiple perspectives begins to serve as the means and the knowledge base for making a more informed consensual decision on a contested issue.

In other words, we need to better understand how conflicting actor interpretations around contested issues may eventually give way to settlement in organizational fields. If, as a number of scholars have argued, issue interpretation is an important precursor to tangible action (Bansal & Penner, 2002: 313; Barr, Stimpert, & Huff, 1992; George et al., 2006; Tilcsik, 2010), then understanding how the interpretations of actor subgroups within fields evolve over time can shed light on how fields might reach settlement on contentious issues.

Progress in addressing the lacunae raised above requires research that (a) examines the intra-field complexity involved in issue interpretation, and (b) tracks issue interpretations over time. In what follows, therefore, we ask: *How do actors' interpretations of issues within fields evolve over time, and what implications do these shifts have for field settlement of the issue?*

EMPIRICAL CONTEXT

Civil aviation has experienced continued growth since its inception, with passenger traffic increasing threefold over the last 25 years alone, and this trend is predicted to continue (Bows, Anderson, & Mander, 2009; Chapman, 2007).¹ Yet, while aviation was still seen as a valued icon of globalization in the early 2000s, the industry has become, within a strikingly

short time, a highly visible symbol of environmental degradation and a target of environmental activists (Walker & Cook, 2009). In spite of continuous incremental efficiency gains made by the industry, the projected growth in both passenger and freight traffic indicate that the overall contribution of aviation to climate change emissions will probably increase significantly in the future (Bows et al., 2009; Chapman, 2007; Cohen, 2010), leading to claims that aviation is “the most unsustainable mode of transport currently available” (Chapman, 2007: 361).

Growing pressures on aviation to mitigate its environmental impact are emanating from non-governmental organizations (NGOs), governments, and the general public, particularly in North America and Europe (Engau, Sprengel, & Hoffmann, 2008). Protest campaigns against the expansion of the sector have been pursued by large generalist NGOs, such as Greenpeace or Friends of the Earth, and by smaller NGOs targeting the transport sector or aviation specifically, such as AirportWatch, the Aviation Environment Federation, or the European Federation for Transport and Environment (Boons, van Buuren, & Teisman, 2010; Griggs & Howarth, 2004; May & Hill, 2006). Governments' actions to promote the “greening” of aviation have ranged from supporting carbon offsetting programs offered by airlines (Cohen, 2010; Gössling et al., 2007) to the establishment of new fuel and ticket taxes (Cohen, 2010), and to inclusion of aviation in national or regional emissions trading schemes (e.g., Buhr, 2012). Normative pressure arising from environmental issues in aviation emanates from the general public as well. Controversial statements such as the Archbishop of London's declaration that “flying on holiday [...] is] a symptom of sin” (*The Guardian*, 2006) have fueled a debate that has received much attention and echo in the general media (Randles & Mander, 2009) and has been characterized by growing contention. Persisting protest campaigns organized by local environmental groups, largely over noise and air quality, have constrained the expansion of airports, for example, in highly publicized cases such as Heathrow Airport's new terminal controversy (Griggs & Howarth, 2004).

Environmental issues thus represent a complex challenge for this industry (Bows et al., 2009; Walker & Cook, 2009). The field of aviation is characterized by a diversity of actors, including national and local governments, international regulators, airlines, airports, air traffic control organizations, airframe and engine manufacturers, as well as other supplier firms, resulting in what some observers have called

¹ In this study, we focus on the scheduled passenger air-transport sector, which we shorthand “civil aviation.” This includes national and regional airlines, public airports, aircraft manufacturers, suppliers, and air traffic-control organizations. Military and defense aviation, as well as private jet manufacturers or operators, are not part of this study. Our regional focus is limited to the Western world (North America and Europe), which is the area covered by our data sources.

an “unwieldy amalgam of organisations” (Lawrence, 2009: 80) among which coordination is slow and difficult. It is now widely accepted that addressing environmental issues in aviation cannot be achieved by any “silver bullet,” but will instead require collaborative actions by multiple actors on various fronts (Bows et al., 2009; Chapman, 2007; Green, 2009; Lawrence, 2009).

In sum, the complexity of environmental issues in aviation means that, at any given time, several forms of action are being discussed by an array of different actors (Walker & Cook, 2009). As contended by Gray (2003: 15), environmental conflicts are rich empirical contexts through which to study framing contests because “parties in a dispute or those confronting environmental hazards develop considerably different frames about what the dispute is about and what should be done about it and by whom.” Aviation now represents one such “interpretive battleground,” where the formation of “shared meanings in environmental discourses . . . is complicated by the interface of climate science, operational management, economics, and engineering, among other disciplines” (Walker & Cook, 2009: 7). These characteristics make aviation an ideal terrain in which to observe how actors’ framing of environmental issues evolves over time.

METHODS

We seek to build what Edmondson and McManus (2007: 1165) call “intermediate theory”—theory that “draws on prior work to propose new constructs and/or provisional theoretical relationships.” We adopted an inductive approach building on two related stages of data collection and analysis. The first stage of research consisted of fieldwork, and was used to define a set of interpretive frames used by aviation actors around environmental issues. In a second stage, a content analysis of the trade journal *Aviation Daily* was performed to track the usage patterns of those frames over time, as explained below. A mixed method approach such as this is particularly well suited to study framing (Brummans et al., 2008): fieldwork methods present the advantage of moving closer to the micro-level context of meaning construction to better understand how and why actors frame issues (Kaplan, 2008; Cornelissen & Werner, 2014), while the systematic analysis of archival data allows us to track changes in framing over time and across actors without relying on informants’ memory.

First Stage: Fieldwork

Observation at industry events. In the initial phase of the study, the first author collected data as an observer at four practitioner-oriented conferences on aviation and the environment.² Events such as industry conferences and summits represent a privileged opportunity to study meaning construction (Lampel & Meyer, 2008; Zilber, 2007). The events chosen gathered aviation industry specialists, including representatives from airports, airlines, air traffic control organizations, and suppliers, as well as regulators and observers. The author collected observational data describing the setting, speeches, keynote presentations, and PowerPoint presentations, and conducted informal interviews with participants. The observational data and related documentation collected at industry events were analyzed inductively for recurrent themes that structured industry discourse surrounding the environment. Aircraft carbon emissions and noise were central topics in those conferences, while other environmental issues such as local air quality or water pollution were more peripheral.

Interviews. The observational data were complemented by semi-structured interviews conducted between 2008 and 2009 with 35 informants representing various actors in aviation, including airline representatives, airport representatives, air traffic-control organizations, regulatory actors, aircraft manufacturers, suppliers, and NGOs. Interviews, which lasted on average an hour, were meant to identify which environmental issues the industry faced in the past and present, how the industry has addressed those issues, and to elicit from interviewees their perception of how the debate on aviation’s environmental impact as well as industry actions and discourse had evolved in recent years. Interviews were recorded and transcribed verbatim for subsequent analysis. The first author also wrote a reflective memo immediately following each interview. We requested feedback from study participants on a report presenting preliminary findings, to

² Those events were a one-day international workshop on sustainability and ground infrastructure organized by airport and air traffic-control organizations; a two-day, bi-annual summit on aviation and the environment organized by the major trade associations in aviation; a two-day conference on carbon markets in aviation organized by the International Civil Aviation Organization (ICAO); and a three-day workshop on aviation and alternative fuels organized by ICAO.

ensure the trustworthiness of our interpretations (Bansal, 2005; Patton, 2002).

Analysis of fieldwork data and identification of frames. Our approach to analyzing our field data was motivated by the theoretical model proposed by Hoffman (2001a). Taking Hoffman's list of cultural frames as a starting point, our goal was to create a revised list that was tailored to our context in the time period considered (Sonpar & Golden-Biddle, 2008). We first coded our data by searching for idea elements that form the "building blocks" of frames, including catch phrases, problem definitions, statements of cause and effect, statements of solutions, and appeals to principle (Creed et al., 2002). Using constant comparative analysis (Brummans et al., 2008; Glaser & Strauss, 1967), we then searched for common themes as well as inconsistencies or contradictions within and across interviews and in our fieldnotes. Frames were then identified by searching for the "unifying structures that held idea elements together" in a coherent conceptual package (Creed et al., 2002: 482). Definitions for each frame were developed and refined iteratively during data analysis. Finally, we performed a validity check by submitting our list of frames and their definition to an experienced industry informant and asking for feedback.

Ultimately, this process led to the identification of six frames: (1) regulatory compliance, (2) image management, (3) economic burden, (4) operational efficiency, (5) systemic efficiency, and (6) technological innovation.³ Whereas Hoffman (2001a) grouped his list of cultural frames into the categories of "threat" versus "opportunity," our own interpretive coding led us to differentiate frames on the distinct, although related, dimension of "buffering"

³ We found that some of the frames proposed by Hoffman (2001a) were either not used by aviation industry actors, or were used in a somewhat different way. For example, capital acquisition and human resources management were almost never mentioned by respondents. On the other hand, Hoffman's social responsibility frame was mentioned, but tied closely to the perceived necessity to correct the "biased perceptions" held by the public about aviation's "real" environmental impact. Social responsibility was thus intimately related to image management in our context. It is useful to note that Hoffman (2001a: 138) also pointed to this possibility when he wrote that, "when faced with such a cultural frame [of social responsibility], corporations delegate responsibilities to a public affairs function with a focus on what corporations should do to offset these transgressions and remain legitimate members of society."

versus "integrating." Buffering frames cast environmental issues as external sources of disruption from which the core business activity needs to be buffered (Thompson, 1967). These frames thus express a form of resistance. Three of our six frames fell in that category. The *economic burden* frame depicted environmental protection as costly and as an additional draw on the scarce resources of industry actors, as illustrated by an aviation consultant who noted:

"Because we have thin financial resources in that industry, if you have to focus on security and you have to maintain safety and some sense of customer service and amenities and so on and so forth, how much money is left to worry about environment?"

The *regulatory compliance* frame emphasized new or reinforced regulation as the means to reduce aviation's environmental impact, as when a governmental representative stated that:

"For us, one of the advantages of an emissions trading scheme is precisely that this mechanism allows [us] to mitigate the impact of aviation on the environment, [as] well [as] to mitigate emissions of CO₂, without touching significantly the growth."

The *image management* frame highlighted the need to redress the misperceptions of the public about aviation's real environmental impact. For example, an airports trade association representative noted:

"... there is a great deal of misinformation and misconception out there about the actual contribution that the aviation makes to the problem ... We're spending a lot of time, individual time, and a lot of resources, not trying to hide from the problem, not trying to say we're not guilty, that's not what we're trying to do ... However, what you gotta understand is that you're getting the basic information wrong. So, let's start from the right base. So, we've been doing a lot to try to correct that, whether it's been talking to ICAO, or it's been in public forums, whatever, we've been spending an awful lot of efforts doing that."

Integrating frames, on the other hand, cast environmental issues as an integral component of business operations, and thus expressed more openness to substantive change. An integrating frame indicates acceptance of the issue as "part and parcel" of the field, something to be integrated in normal operations and not resisted as a "foreign intrusion." The *operational efficiency* frame casted environmental protection as synergistic with the pursuit of efficient business operations. For example, several airline

representatives mentioned fuel-saving measures as contributing to environmental protection (e.g., “If we can reduce the fuel consumption of an aircraft, we reduce its carbon production, its [nitrogen oxides] production, we reduce contrails, we reduce a bit of everything”). One airport representative stated:

“It makes great economic sense to reduce the fuel burn, to find more efficient ways to fly. . . . we’re very interested in reducing the emissions, we’re very interested in reducing the noise. Why? Not only is it sustainable from a public point of view, but it’s economically smart.”

The *systemic efficiency* frame pointed to inefficiencies in the system of aviation as a cause of undue pollution. For example, an airport representative stated:

“A lot of the issues that end up costing a great deal in terms of greenhouse gases can be drawn back to inefficient or ineffective air traffic control. Aircrafts spending too much time in the air, they’re having to fly circuitous routes.”

Finally, the *technological innovation* frame highlighted the need for technological research and development on new engine technology and airframe designs to address environmental issues. For example, an airport representative stated “our view is that ultimately the right answer is research, reducing the footprint of carbon,” while an aircraft manufacturer representative opined that “environmental progress will come from technology, and it’s by emphasizing technological advances that we will provide an answer to those issues.” In sum, integrating frames depicted environmental protection as an integral part of core business activities in the industry. Unlike Hoffman’s opportunity frames, though, integrating frames did not necessarily imply that environmental issues could become a source of competitive advantage for firms.⁴

In addition to the list of frames, we also developed iteratively a list of the types of field actors involved, which included the following categories: NGO/local community group, airline, trade association, airport, ICAO/UN, state/politician, specialized governmental

agency, industry group/coalition, engine/aircraft manufacturers, and industry supplier/consultant. We also developed a list of specific environmental issues relevant for this industry, which included noise, carbon emissions, nitrogen oxides, water pollution, and local air quality.

Second Stage: Content Analysis of a Trade Publication

Data source. Like Giroux (2006) in her study of the “pragmatic ambiguity” surrounding the quality movement, we analyzed published texts to track the evolution of meaning surrounding environmental issues in civil aviation. Published texts are valuable resources for researchers trying to retrospectively study evolution in social systems (Mohr, 1998; Ventresca & Mohr, 2002). Texts are constitutive elements of the social and cultural reality in which organizational actors are embedded (Shenhav, 1995), and therefore they are well suited for use in studying issue interpretation and framing. As Giroux (2006: 1237; emphasis in original) explained:

Identifying and analyzing the particular trajectory of collections of texts is not a poor substitute for studying “the real thing”; it *is* the real thing—or at least a good part of it—the emergent, collective, inter-textual, and linguistic processes through which ideas are articulated and evolve.

Trade journals, in particular, are an invaluable source of data since they “act as a common source of information, aiding in the normalization of industry perspectives” (Hoffman, 2001b: 227), and thus play an important role in meaning construction at the field level.

We chose the trade publication *Aviation Daily* to track evolution in the framing of environmental issues over time in the civil aviation industry. *Aviation Daily* is a newsletter service that delivers through paid subscription daily tactical information, news, and market data on the global commercial airline industry. The publication is an important source of business intelligence and information for managers and executives in the commercial aviation industry. Chen and MacMillan (1992: 551) described *Aviation Daily* as the “industry mouthpiece intended to report objectively airlines’ announcements and actions.” Furthermore, our interviews with various experts in aviation all confirmed the prominent role of *Aviation Daily* as the most authoritative source of information on the global aviation industry. Because of its daily publication schedule, *Aviation Daily*

⁴ For example, our systemic efficiency frame casts environmental protection as deriving from greater systemic coordination, which doesn’t translate into a competitive advantage for any given firm taken in isolation. Thus, while systemic efficiency is clearly a frame *integrating* environmental issues into the core business, it isn’t quite an *opportunity* in the sense Hoffman described.

ensures a detailed coverage of the industry that is not offered by other trade publications. Finally, *Aviation Daily* articles are most often short and focused on specific and narrow topics, rather than on comprehensive reviews or analyses, and often report statements made by industry actors, thus representing a valuable source of data to study industry actors' interpretations of environmental issues.

We chose 1996, one year before the signing of the Kyoto Protocol, as the starting point of our coding because our interviews with industry participants indicated that the nature and scope of the environmental debate in aviation changed drastically with the debate over Kyoto. Our end point was 2010, one year after the adoption by the International Air Transport Association (IATA) of an ambitious set of commitments regarding carbon emissions, which (as we describe below) we take as an indicator of field-level settlement surrounding the emissions issue.

We searched the online database Factiva (Dow Jones & Company, New York) for articles related to the environment in *Aviation Daily*. The search was limited to the headline and first paragraph because our goal was to capture only articles that were mainly and explicitly about environmental issues. We included as keywords the dominant environmental issues in aviation that had been identified through fieldwork, in addition to words referring to the environment more generally: environmental*, sustainab*, nois*, emission*, pollut*, green*, carbon*, *oxide, NO_x, water, air quality. We then rejected articles that used any of these keywords in a way unrelated to our study, or whenever the environment was a peripheral topic as opposed to the central topic of the article. This search yielded 1,092 articles published between January 1, 1996, and December 31, 2010.

Coding procedure. Choosing the appropriate level of analysis for coding is an important first step in content analysis (Krippendorff, 2012). In the present study, we focused on the level of individual statements attributed to a clearly identified actor. We coded both direct quotes attributed to specific actors and statements reported by a journalist but explicitly attributed to a specific actor. *Aviation Daily* articles are typically very concise and to the point. Consequently, most articles were found to contain only one statement, made by one actor. Only 192 articles (18%) were coded with multiple statements. Each statement was linked to only one actor category; however, a given statement could be coded for several frames, as well as several environmental issues.

Table 1 provides illustrative coded statements from *Aviation Daily* for each frame.

Our codebook comprised a conceptual definition of each frame as well as specific examples of statements. Because we were primarily interested in the interpretations of industry actors who are pressured to respond to an issue, rather than those of actors who are exerting the pressure, we coded only statements from airlines, airports, suppliers, and collective industry actors.⁵ We included in the codebook issues that had been identified through fieldwork, and included a category for "other issues" to capture issues that had not been identified by informants. Thus, the data analysis reported here includes framing activity by four major actor groups (airlines, airports, suppliers, collective actors) concerning six issues (noise, emissions, local air pollution, water pollution, NO_x, other) and using six frames (Table 1).

The articles were coded by two research assistants trained in research methods. Following the procedures used by Brummans et al. (2008), the coders were first trained and pilot reliability tests were performed until sufficient agreement was reached. To assess intercoder reliability, both coders independently coded a random sample of 100 articles. First, we assessed unitizing reliability by computing Guetzkow's U (Guetzkow, 1950) on the number of units (i.e., statements) found by each coder ($U = 0.021$, or 2.1%). Because Guetzkow's U does not provide an assessment of the unit-by-unit agreement between coders (Folger, Hewes, & Poole, 1984), we also used Cohen's κ (Cohen, 1960), a conservative measure of interjudge reliability (Lombard, Snyder-Duch, & Bracken, 2002), to assess interrater agreement on the number of statements found in each of the 100 articles ($\kappa = 0.71$). Next, the raters coded each statement for frames, actors, and issues, and we used the benchmarks proposed by Landis and Koch (1977) to help in the interpretation of coding reliability using Cohen's κ . We found that intercoder agreement for issues ($\kappa = 0.70$), frames (0.80), and actors (0.76) all fell in the "substantial" ($\kappa = 0.61$ –0.80) range. The coders then reviewed and discussed cases of disagreement

⁵ This involved merging some actor categories with low numbers of coded statements with conceptually similar categories. For example, industry group/coalition was merged with trade associations into the new category "collective actors," and engine/aircraft manufacturers was merged with industry supplier/consultant into the new category "suppliers."

TABLE 1
Environmental Management Frames and Examples of Coded Statements

Frame Definition	Illustrative quotes from <i>Aviation Daily</i> articles
Integrating Frames:	
<p><i>Operational efficiency</i> Inefficient aircraft operation causes both additional cost and increased pollution. Operational improvements such as fuel-efficient procedures also contribute to environmental protection.</p>	<p>September 7, 2007: “There is a 1:1 correlation between reducing fuel burn and reducing emissions,” says a U.S. Department of Transportation official.</p>
<p><i>Systemic efficiency</i> The lack of coordination among industry actors leads to systemic inefficiencies of global aviation and increased pollution. Infrastructural improvements such as flight routes optimization and air traffic management improvements will reduce aviation’s environmental impact.</p>	<p>February 5, 2001: The new [U.S. Department of Transportation] secretary stated that “Airports, airlines, and [air traffic control] all ‘have to do better’ and talk to each other. The three entities are the ‘sun, moon, and stars’ and they are ‘out of alignment.’”</p>
<p><i>Technological innovation</i> Current airframe designs could be more efficient, and we lack technological alternatives to current jet fuel engines. Progress on environmental issues will come from technological research and development on new engine technology and new airframe designs.</p>	<p>March 29, 2011: [. . .] The group also expressed the hope that the White Paper would “act as a catalyst for greater public funding for research into new technologies and alternative aviation fuels. [European Low Fares Airline Association] airlines operate the newest and most technologically advanced aircraft available, but there remains a need to further accelerate the rate of progress in technological breakthroughs, to facilitate the sustainable growth of aviation with its vitally needed enabling socioeconomic effect on the economies of Europe.”</p>
Buffering Frames:	
<p><i>Economic burden</i> Environmental management consumes scarce resources and is costly. Industry actors lack the financial resources to invest in environmental management projects. Environmental taxes or levies on aviation are counterproductive.</p>	<p>November 16, 2010: As rapidly expanding Qatar Airways announced its 100th destination, the airline’s outspoken CEO, Akbar Al Baker, criticized governments for implementing charges like the [European Union’s Emissions Trading System]. He says airlines serve as “cash cows” to compensate for governmental inefficiency. Speaking at the recent Doha Aviation Summit in Qatar, Al Baker called for industry collaboration to stop “unnecessary charges” and urged the [IATA] and the International Civil Aviation Organization to work collectively in the interests of airlines.</p>
<p><i>Regulatory compliance</i> New or reinforced regulations are the vehicle to reduce aviation’s environmental impact.</p>	<p>September 30, 2005: The European Commission, after months of consideration, will move on a proposal to include airlines in the European Union’s [Emissions Trading System] as a means to curb CO₂ emissions. With demand in Europe increasing, aviation’s share of CO₂ emissions—now at a modest 3%—is “growing faster than any other sector.” Bringing airlines into the [Emissions Trading System] will allow them to limit emissions “at the least possible costs,” said Environment Commissioner Stavros Dimas.</p>
<p><i>Image management</i> The public is misinformed about the real environmental track record of the industry and overestimates aviation’s environmental impact. Global marketing campaigns for aviation will solve the misconceptions about aviation’s environmental impact.</p>	<p>September 20, 2001: The European Regions Airline Association (ERA) this week launched a Positive Images campaign to counteract what it calls “the negative attitude of European politicians and regulators towards the regional aviation industry.” The ERA said the campaign is aimed at promoting awareness of the crucial role regionals play in air travel in protecting the environment and extending social and economic benefits to aviation throughout Europe. The ERA is planning to make environmental issues a focus of its general assembly scheduled for October in Athens.</p>

until a consensus on coding those cases was reached (Lombard et al., 2002). Finally, the coders proceeded with coding the entire dataset, and discussed problematic articles until a consensus was reached.

Data analysis. The coded data were first analyzed by drawing simple timelines for the discursive prominence of each actor, environmental issue, and frame. We then iterated between various forms of data display for actors' framing activity to guide our emerging theory. The concept of "framing trajectory," defined as the changing ratio of integrating versus buffering frames over time, emerged as an important analytical tool allowing us to capture variation across actors and over time. We describe our means of representing framing trajectories below.

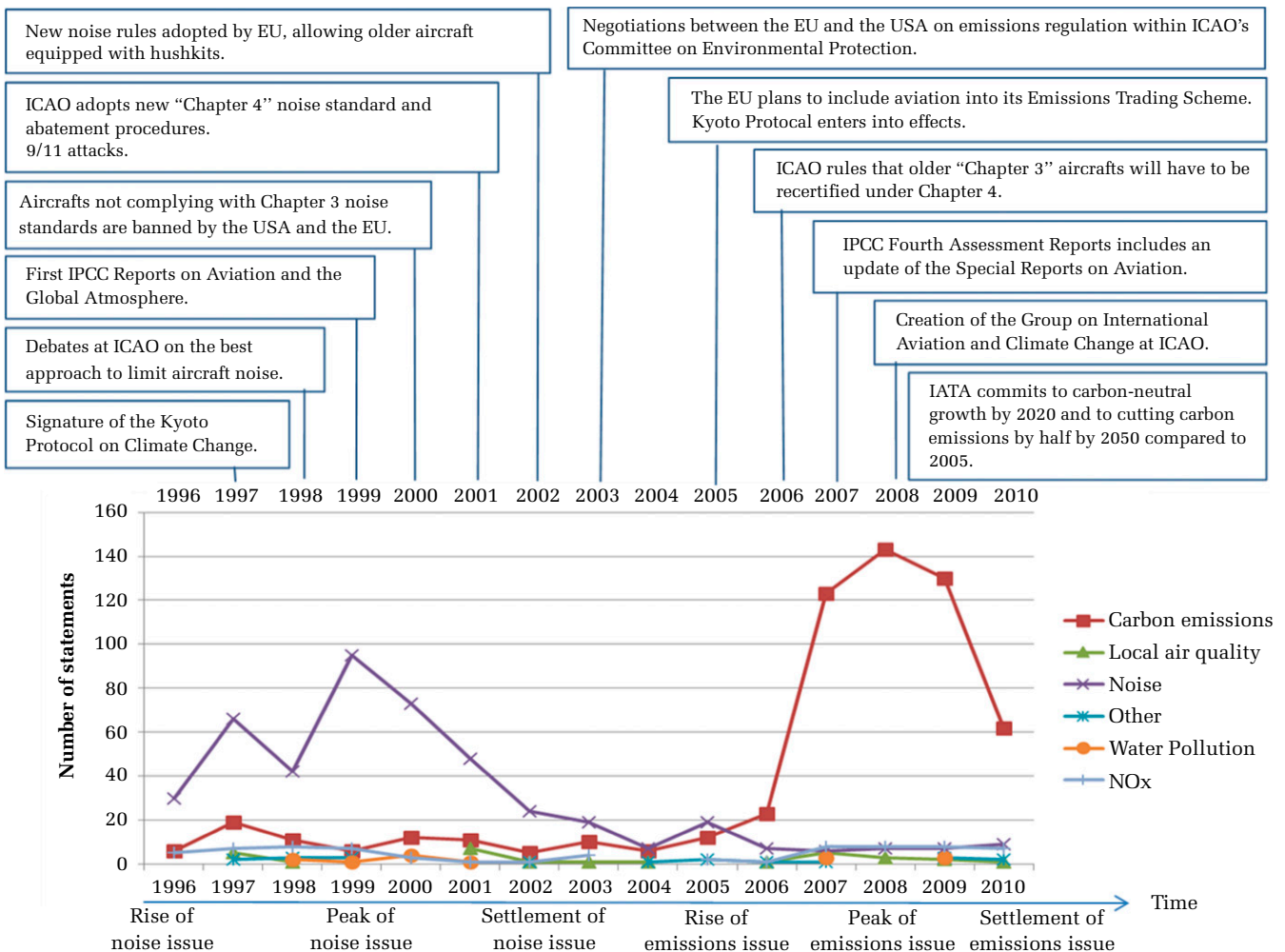
FINDINGS

Evolution of Environmental Issues in Civil Aviation

A number of important developments surrounding the environment occurred during the period covered by this study. Some of these developments were bounded to the aviation industry, while others impacted not just aviation but broader society. Figure 1 presents a summary of the major developments that were mentioned by interviewees as having particular importance during our study period.

The relative salience of environmental issues in civil aviation also evolved significantly over time. As we described in our methods section, we coded *Aviation Daily* articles for six environmental issues. Figure 1 also presents the salience of each of these

FIGURE 1
Timeline of Major Events and Salient Environmental Issues in Civil Aviation



environmental issues as measured by the number of statements coded in our dataset in a given year.

As Figure 1 shows, two issues—noise and emissions—were most prevalent in industry discourse. While the dominant environmental issue faced by aviation at the start of our study period was aircraft noise, discussion surrounding this issue declined and was eclipsed by the rising issue of aircraft emissions, which became predominant (then also began to decline) toward the end of our study period. Noise and emissions therefore successively rose and fell in salience, with an interlude in between. We focus our analysis on these two prominent issues, which provide two different cases of issue lifecycle over the study period, and allow us to track similarities in framing patterns across issues (Langley & Abdallah, 2011). Prior to presenting our analysis of these framing patterns, we first describe how various developments both within and outside civil aviation affected the salience of the noise and emissions issues.

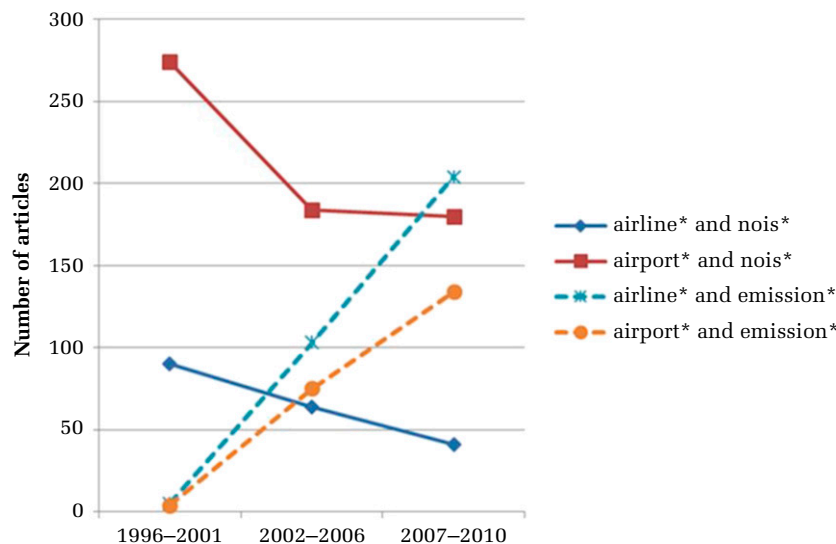
From the start of our study period in 1996 until 2001, the dominant environmental issue in the industry was aircraft noise. While the noise issue is nearly as old as the civil aviation industry, by the 1990s, contestation around aircraft noise had intensified and developed into a transnational discourse made possible by the growing standardization of noise indicators, the rise of transnational environmental groups, and the increasing political attention given to notorious noise controversies around the globe, including at Heathrow,

Schiphol, Frankfurt, and Tokyo airports (Broer, 2007; Griggs & Howarth, 2004). The growing significance of the noise issue was further exacerbated by the strong growth experienced by air traffic during the 1990s, with only limited expansion possible in airport infrastructure around many large cities.

Our fieldwork suggested that airports were on the frontline of contestation surrounding noise, while airlines were somewhat removed from direct contention. To verify this, we searched for articles published in four generalist newspapers (*New York Times*, *Washington Post*, *The Guardian*, *The Times*) mentioning a given actor category (airlines or airports) and a given environmental issue (noise or emissions). As Figure 2 clearly shows, airports were much more closely associated with the noise issue than airlines in general media discourse. Controversy around noise developed at locations around large airports, and airport authorities were the natural frontline targets of protest; they were also the central actors in locally defined agreements or rulings to control aircraft noise.

This period of contestation over noise was marked by pressure from environmental groups and governments to define more stringent noise standards within the arena of the ICAO (see ICAO, 1971). Many older aircrafts operating under the so-called “Chapter 2” standard of the ICAO’s Annex 16, dating from 1969, were still operating, while the “Chapter 3” noise standards only applied to newer aircrafts. A transition period to phase out older “Chapter 2”

FIGURE 2
Generalist Media Coverage



aircrafts was defined by the ICAO, allowing individual countries much flexibility in the pacing of this regulatory change, and, in 1998, the United States and the European Union (EU) decided concurrently to ban older aircrafts not complying with the “Chapter 3” standard as of 2000 (ICAO, 2014). Yet a strong controversy ensued when the EU went further and unilaterally decided to extend the ban to older aircrafts retrofitted with so-called “hushkits” (kits used to lower the noise levels of aircrafts), thereby triggering a legal battle with the United States. The noise controversy subsided in 2001 when a new “Chapter 4” noise standard was introduced by the ICAO, new noise abatement procedures were put in place, and the EU relented and accepted hush-kitted aircrafts on their airports (Knorr & Arndt, 2002). Together, these three developments marked the end of intense debate within the field surrounding noise, and Chapter 4 noise standards remain in place today as the dominant convention governing aircraft noise.⁶

While the debate about noise was unfolding within the established forum of policy making and regulation within the aviation industry, discussions regarding emissions were heating up outside of aviation, including at the United Nations Framework Convention on Climate Change (UNFCCC) treaty negotiations at the Earth Summit in Rio de Janeiro in 1992, as well as at regional and local governmental levels. Emissions caused by the aviation sector were left out of the Kyoto Protocol (adopted in Kyoto, Japan, in 1997), and instead ICAO had been mandated to search for a sector-specific approach to aviation’s emissions (Buhr, 2012). Yet, the emissions issue was slow to gain traction within the industry. As one governmental representative recalled:

“When they were negotiating Kyoto . . . they came up with the idea of taking it, aviation and maritime bunker fuels, out of the main agreement . . . It was considered to be too difficult because of the fact that, you know, airplanes fly A to B to C, when a British Airways plane is flying to Saudi Arabia with American passengers, whose emissions are they? Same with maritime . . . basically, too difficult to account for.”

Although the Intergovernmental Panel on Climate Change (IPCC) published a special report on Aviation and the Global Atmosphere in 1999, estimating

that aviation represented 2% of global anthropogenic carbon emissions and 3.5% of total climate change emissions, at the time this issue was not finding an echo within the industry (Figure 1).

The terrorist attacks of 9/11 represented a watershed event for the aviation industry, and marked the beginning of a period of profound economic crisis from which the industry only started to emerge in 2006. Additionally, in the spring of 2003, the outbreak of the SARS (severe acute respiratory syndrome) pandemic further aggravated the industry crisis. In the wake of these crises, security had become the leading industry priority, and environmental issues were relegated to the background.⁷ An environmental activist who had participated in the discussions within a related ICAO working group since the 1990s recalled, “I think everything went rather quiet; we had 9/11 and we had the SARS epidemic, and, you know, a lot of environment teams within airlines were the first to be chopped.”

As the shocks of 9/11 and SARS subsided, the idea of a unilateral climate change regulatory framework covering aviation was progressing in Europe. European policy makers were disappointed by the lack of progress of negotiations on climate change emissions within the ICAO, and political support for economic measures such as emissions trading was growing (Buhr, 2012). The launch of the EU Emissions Trading Scheme in 2005 also cleared the path for the subsequent inclusion of aviation’s emissions, yet discourse surrounding emissions remained low within the field (Figure 1).

The IPCC’s Fourth Assessment Report, published in 2007, marked the sudden rise of climate change emissions as a central environmental issue for aviation, and led to an update of the Special Report on Aviation and the Global Atmosphere originally prepared by the IPCC in 1999. The resonance found by the report within the generalist media also led to increased pressure on the industry. As a governmental representative recalled:

“Definitely, momentum with climate change came with the [IPCC’s] Fourth Assessment Report [in 2007]. This was the issue that created a big momentum on climate change. [. . .] since the Fourth Assessment Report, that momentum, I have never seen anything like that before for climate change.”

⁶ Interestingly, comparing Figures 1 and 2 suggests that, while noise decreased markedly in salience in industry discourse, it remained at a high level in the general media.

⁷ Although beyond the scope of our study, this “crowding out” of the environment by security suggests that competition takes place between “meta-issues” just as it does between issues within a meta-issue.

As Figure 2 above suggests, the increasing pressure surrounding the emissions issue was most acutely directed to airlines. Airlines were feeling specifically targeted by growing public awareness of the carbon impact of flying (Randles & Mander, 2009) and by the development of local carbon trading schemes in Europe, Australia, and New Zealand (Bows et al., 2009). Airports, on the other hand, were less directly targeted by the growing pressure arising from the emissions issue.

By 2006, carbon emissions had eclipsed the long-standing noise issue in industry discourse (Figure 1), a situation lamented by airports representatives:

“Greenhouse gases have something of the ‘flavor of the month’ sort of approach, and it has allowed some people the luxury of saying, ‘We don’t have to worry about those things [i.e., noise and local air quality] anymore, this is a higher priority.’”

As the pressure surrounding the emissions issue mounted, the IATA announced, in June 2009, a set of important commitments, including a 1.5% average annual improvement in fuel efficiency from 2009 to 2020, carbon-neutral growth from 2020, and a 50% absolute reduction in carbon emissions by 2050. At the time of the announcement, *The Guardian* described these commitments as “a dramatic pledge” and “strategic shift” (The Guardian, 2009). In the

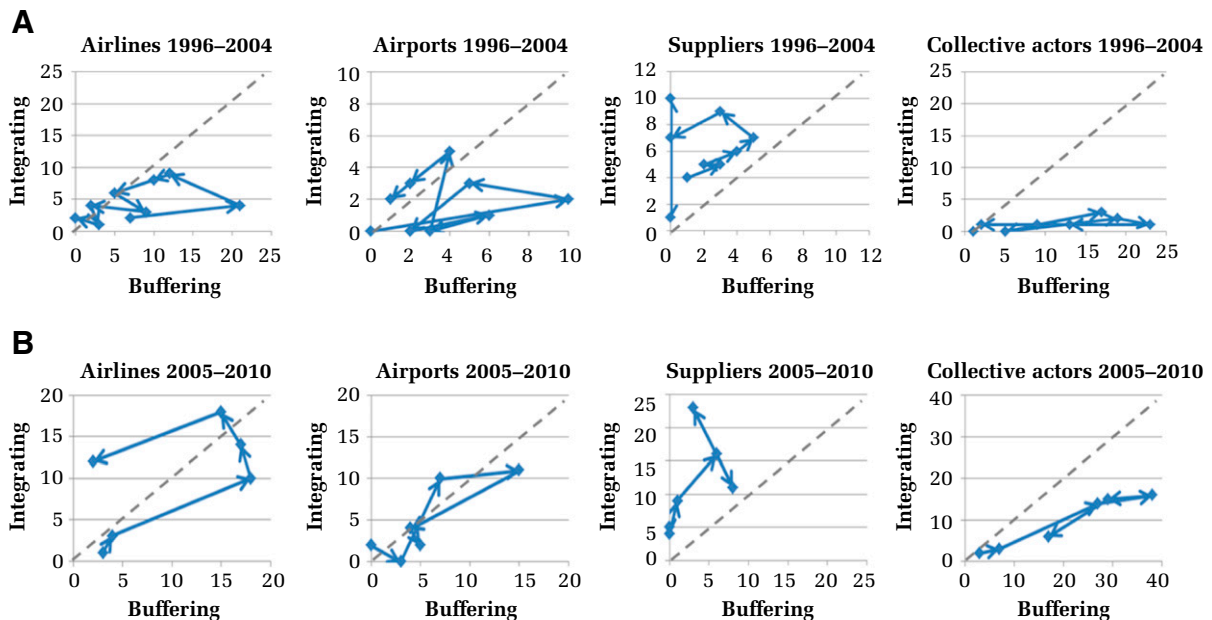
following year, the last of our study period, the level of discourse within the industry surrounding emissions showed a significant decline.

In sum, our study period displays three distinct periods. First, the years 1996–2001 witnessed the rise, peak, and decline of the noise issue. Next, the period 2002–2006 was a quiet one for environmental issues, in the aftermath of 9/11 and SARS. Finally, 2007–2010 saw a sharp rise in discourse surrounding carbon emissions, with a decline in salience at the end of this period.

Framing of Environmental Issues by Actor Groups

Following our account above of major developments and broad shifts in industry attention, we now report the findings of our content analysis of the frames used by industry actors in *Aviation Daily* articles. In order to better compare changes in framing over time, we plotted actors’ use of buffering and integrating frames. Figure 3 represents in two-dimensional space the ratio of integrating versus buffering framing for a given actor group over time. Examining the ratio of integrating to buffering frames provides an indication of the degree to which a given actor group would resist a given issue versus accept the issue as being part of business activity. The x-axis

FIGURE 3
Framing Trajectories



Notes: Panel a = noise period (1996–2004). Panel b = emissions period (2005–2010).

plots the number of buffering frames used by an actor group, while the *y*-axis plots the number of integrating frames. A location on the map thus represents the dominant framing of the actor group at a point in time, with the 45-degree angle line separating the buffering-dominant versus integrating-dominant zones. The line itself represents an equal mix of buffering and integrating frames. By plotting one dot for each year in sequence and linking them with arrows, we can follow over time the framing trajectory of a given actor group.

The top panels in Figure 3 show the framing trajectories during the period dominated by the noise issue, while the bottom panels show the trajectories during the emissions issue (with the quieter, interim period split between the two).

Contrasting four framing trajectories. We found that the ratio of buffering to integrating frames varied across actor groups and over time. Some actors kept a stable tenor over the time period: collective actors remained consistently within the buffering-dominant area of our chart (emphasizing economic burden and regulatory compliance frames), while suppliers remained within the integrating-dominant area of the chart (emphasizing technological innovation). Such framing trajectories are not surprising, since collective actors are expected to defend the status quo for their members, while suppliers (manufacturers, consultants) have an economic interest in promoting change.

In contrast, the framing trajectories followed by airlines and airports differed according to the dominant issue at hand. When airports were at the forefront of public pressure surrounding the noise issue, their initial response was characterized by buffering frames, but, over time, their framing turned counterclockwise toward increasingly integrating frames (Figure 3, panel a). Airports were feeling particularly targeted by the rising noise issue. In a survey of the 50 busiest commercial airports in the United States, “officials from 29 of the 50 airports identified noise as their No. 1 environmental concern” (*Aviation Daily*, September 11, 2000). As stated by an airport executive, “If there is one issue that airport officials regularly get ‘bloodied’ for by local residents, it is noise” (*Aviation Daily*, August 17, 2000). Airports often complained about “restrictive measures” imposed by local governments, “far-reaching limitations” that would “penalize” their operations (*Aviation Daily*, September 25, 1997) and “strangle growth,” leading to “economic suicide” (*Aviation Daily*, September 17, 1997). Despite the progressive retirement of older “Chapter 2” aircrafts between 1995 and 2000, “pressure [was]

building, especially in Europe, for even more stringent [noise] standards” around airports (*Aviation Daily*, January 6, 1999). By 2000, airports began to acknowledge that existing engine noise standards had “clearly not been sufficient” to solve the “intractable problem of noise” (*Aviation Daily*, August 17, 2000) and were speaking out for more stringent noise standards and abatement procedures, and a “clamping down” on noisier aircrafts (*Aviation Daily*, December 12, 2000). In subsequent years, airports were rather proudly announcing “proactive” steps (*Aviation Daily*, June 19, 2002) “in an attempt to discourage night traffic” and “in reducing aircraft noise” (*Aviation Daily*, June 7, 2007). In other words, their framing shifted from buffering, or resistance of the issue, to integration, or acceptance and proactive engagement.

During the emissions debate, airlines followed a qualitatively similar counterclockwise turn toward more integrating framing. While airlines were on the backstage during the noise debate, they were thrust to the front stage as public attention grew surrounding emissions. Like airports for noise, the initial response of airlines regarding emissions emphasized buffering frames (Figure 3, panel b). As a governmental representative stated in one of our interviews:

“Airlines have seemed to be in disbelief, they have not been very effective in my view in their lobbying effort. Because they seem to have expected that this problem with the EU [including aviation in its Emissions Trading Scheme] would just go away. [That] we or that the government should make it go away, or someone should make it go away.”

As the issue heated up, airlines sought “support to change the European Parliament’s proposed rules” (*Aviation Daily*, December 10, 2007) for inclusion of air transport in Brussels’s Emission Trading Scheme. Airlines were becoming worried about “the growing public perception that airlines are enemies of the environment,” a subject that Star Alliance CEO called “the single most important question for aviation to deal with right now to secure sustainable growth in the future” (*Aviation Daily*, May 15, 2007). Airlines were feeling directly targeted, as expressed by British Airways’ CEO, who noted that “it is the airlines, rather than equipment manufacturers, that are in the front line when it comes to public criticism of aviation’s environmental impact” (*Aviation Daily*, July 21, 2008). Rapidly, many airlines made arrangements to allow “their passengers the chance to make donations” (*Aviation Daily*, September 18,

2007) to environmental groups to offset emissions—a response that involved no real change to airline operations. Some airlines rejected the emissions issue entirely, calling the behavior of environmentalists “selfish” (*Aviation Daily*, October 9, 2007). Within a short time, however, airlines began to announce tangible “promises to slash” their emissions and “tackle climate change head on” (*Aviation Daily*, December 1, 2009). Some airlines even became vocal advocates of progress on environmental protection, as, for example, when “EasyJet reinforced its call for aircraft makers to deliver less polluting airliners” (*Aviation Daily*, December 1, 2009). Airlines announced partnerships with one another and with suppliers that would both “reduce complexity and improve environmental performance”—an approach that signaled perceived consistency between core operations and reduced emissions. In other words, like airports with the noise issue, airlines shifted their framing of emissions from buffering to integrating (Figure 3, panel b). Additional quotes from our data are provided in Table 2 to illustrate this “buffering to integrating shift” taken by airports during the noise issue, and airlines during the emissions issue, and we theorize the mechanisms behind this shift in the next section.

Our results reveal another similarity between airports and airlines. During the noise period, while airports underwent a shift from buffering to integrating, airlines tended to mix buffering and integrating frames in most years (Figure 3, panel a). Similarly, during the emissions period, airports tended to mix buffering and integrating frames while airlines underwent the shift to integrating (Figure 3, panel b). These two actor groups thus mirror each other’s framing trajectory when the two issues are compared.

Mechanisms underlying the buffering to integrating shift. Our data suggest distinct mechanisms underlying the shifting framing trajectory observed for airports in the case of noise and airlines in the case of emissions. The initial response of these actors to pressure around environmental concerns was dominated by buffering frames. Airlines felt unfairly targeted by the public, as articulated by one airline representative who lamented that “people are not fair with the industry . . . most people produce more emissions driving their cars than when they travel by plane.” Several informants also pointed to high levels of complexity and regulation as forces for conservatism and barriers to change. For example, the editor of an airline trade publication described aviation as a “supertank industry” with slow response

times. An airport representative highlighted the “counterintuitive” fact that “the government procedures and the government organizations that are required to approve any new project make it very, very difficult—in some cases, impossible—to make the investments” in environmental impact mitigation.

Our data suggest three mechanisms explaining why airports and airlines eventually came to realize that resisting pressures for change was not an effective long-term strategy and thus shifted their framing from buffering to integrating. First, these actors were receiving negative moral judgments from the public. During the debate surrounding emissions, aviation officials were worried about “the dramatic and rapid demonizing of airlines” (*Aviation Daily*, October 26, 2007). Airlines executives realized that they were “quickly becoming pariahs in Europe for their perceived contribution to climate change . . . Airlines have protested that this characterization is unfair, but ‘that misses the point,’ said David McMillan, U.K. Transport Dept. director-general of civil aviation” (*Aviation Daily*, October 11, 2007). Airlines also realized that this pressure would not disappear, as illustrated by British Airways CEO Willie Walsh’s statement that:

... as environmental issues gain more political and public currency, the U.S. aviation industry “cannot turn its face against carbon trading forever.” Plans like the [Emissions Trading Scheme] are here to stay, Walsh said, adding that, “Emissions trading is no longer some vague, theoretical idea for airlines. It is going to happen.”

(*Aviation Daily*, July 2, 2007)

Second, an important motivation for the shift was the looming threat of externally imposed regulation. This threat was particularly acute for emissions regulation during the later period of our study. According to an environmental NGO representative:

“The risk that the United Nations framework mentioned on climate change may . . . take away that mandate and impose something on aviation, I think that’s a little bit of a wakeup call . . . So [aviation is] certainly, certainly very reactive to external pressure.”

As the emissions issue continued to rise in salience (Figure 1), some airline executives began to argue that “airlines should ‘lobby’ governments around the world to create a global cap-and-trade system to mitigate the industry’s greenhouse gas emissions,” stating that, “if airlines don’t get out there and lobby themselves for a system, it’s likely to be imposed anyway. . . . We might as well be at the

TABLE 2
Illustrations of Shift from Buffering to Integrating Framing by Front-Stage Actors^a

Buffering Frames	Integrating Frames
<p><i>Airports and noise</i></p> <p>The Netherlands government's noise restrictions at Amsterdam Schiphol Airport will require "far-reaching limitations on flights and runway usage" during 1998, the airport told the Dutch transport ministry. Submitting 1998 operational guidelines, the airport said Dutch carriers will have to reduce frequencies after April 1, when an independent coordinator approved by the transport ministry will review flight schedules for compatibility with the Schiphol noise limits. (November 12, 1997)</p> <p>In an effort to cool off opposition from resident groups and Green Party members of France's ruling coalition, [French Transport Minister] Gaysot imposed new noise restrictions . . . "These restrictive measures will somewhat penalize the operation of the airport," said an ADP [Aerports de Paris] spokesman. (September 25, 1997)</p>	<p>Officials from the [United Kingdom]'s Manchester Airport recently announced major improvements in reducing aircraft noise during departures. Aircraft are required to stay on Preferred Noise Routes . . . during take-off to reduce the effects of noise on surrounding neighborhoods. Planes are allowed to deviate only when advised by air traffic control. (April 22, 2003)</p> <p>The Minneapolis Metropolitan Airports Commission . . . is proposing special departure procedures for a new runway under construction at the city's airport. The procedures would call for a 2.5-nautical-mile turn point upon departure with aircraft routing over a river valley to divert noise from neighborhoods near the airport. . . . Chad Leque, coordinator of [the Minneapolis Metropolitan Airports Commission]'s airport noise and operation monitoring systems, said [the Federal Aviation Administration] will either find the new runway procedure creates no significant environmental effect and adopt it, or find need for further review. "All efforts are in concert," Leque said, calling the runway procedure "a pretty proactive step." (June 19, 2002)</p>
<p><i>Airlines and emissions</i></p> <p>Discussions under way on the global climate treaty could "undo 20 years of deregulation with disastrous economic consequences," Smith said, noting that the air cargo industry was deregulated 20 years ago this month. Limiting fuel is "no different" than government oversight of routes and rates, he said. (November 14, 1997)</p> <p>U.K. low-cost carrier Flybe blasted environmental activists who staged protests yesterday at Manchester airport, which the airline labeled as "selfish" behavior. "Contrast the actions of seven with the 30,000 who will travel with Flybe in and out of Manchester airport this week and it's plain where public support rests," COO Mike Rutter said. (October 9, 2007)</p>	<p>British Airways promises to slash its [CO₂] emissions 50% by 2050, using a baseline that predates the bulk of its fleet upgrade plans. The airline vows to reduce CO₂ emissions to 8 million metric tons per year, from 16 million metric tons it registered in 2005. [British Airways] already has put in place several fleet purchases that should help reduce fuel consumption, including plans to introduce the Boeing 787 and Airbus A380. (January 26, 2009)</p> <p>In the run-up to this month's global climate talks in Copenhagen, EasyJet reinforced its call for aircraft makers to deliver less polluting airliners. . . . It reinforced that message last week when CEO Andy Harrison called for a mandate for aircraft that bring about a 40% cut in [CO₂] output. . . . "If we get cleaner aircraft and ground the old smokers, we can reduce the industry's overall emissions and tackle climate change head on." (December 1, 2009)</p>

^a Excerpts from *Aviation Daily* articles.

table than not at the table" (*Aviation Daily*, May 15, 2009). Pressure on airlines was mounting, leading them to change their stance:

At a certain point, we're realists [. . .]. It appears that Congress and the [Obama] Administration are looking to adopt such a [market-based emissions reduction] measure, and, in that case, we want to work with them to productively shape the measure.

(*Aviation Daily*, April 9, 2009)

Finally, the third mechanism promoting the shift in framing was pressure from within the industry,

exerted by other organizational actors. For example, airports were among the actors pressuring airlines to accept carbon emissions regulation in Europe (Buhr, 2012: 1578), as described by an NGO representative:

"You look at the early lobbying efforts in Europe and when we were still debating whether or not to include aviation in the scheme, and you will find the airport community and the NGOs sit side by side. And the airport, you know, they actually . . . it looked good. Yes. It's not a selfless task. You know, they actually saw that their ability to handle more growth in the future depended on having something in place and

this was it. I don't think the airlines took too kindly to being told what to do by airports, but that they did have this rather stand-off debate."

Airports were willing to put pressure on airlines because, as one airport representative confessed:

"It's convenient for airports—convenient isn't the word—they're not really airport emissions, they're really aircraft emissions so a lot of the burden of emissions trading will fall on airlines, so it's easy for us to support it."

Similarly, during the debate around noise, when airports were on the forefront of public scrutiny, airlines joined the ranks of actors requesting more stringent noise standards: "U.S. airlines, airframe and engine makers unanimously support a new noise standard that would reduce noise eight decibels from current standards for aircraft in production" (*Aviation Daily*, January 16, 2001).

In summary, the time period covered by this study began with the rise of noise as the dominant environmental issue within the field. Airports were most clearly associated with this issue in societal discourse, and initially responded with (predominantly) buffering frames. By 2001, airports had shifted toward more of an integrative stance, and the field reached settlement on new noise standards and procedures. A similar dynamic was evident later in the decade surrounding emissions. This issue spiked in salience within the field in 2007–2009, despite its having risen to prominence in wider society some years earlier. Our analysis shows that societal discourse most clearly associated this issue with airlines. Like airports in the case of noise, airlines responded at first with (predominantly) buffering frames. And, like airports, they migrated to (predominantly) integrating frames. The field reached settlement on this issue in 2009–2010, as ambitious engagements were adopted for reducing emissions, thus signaling that the issue had become accepted as "part and parcel" of the business activity in the field.

THEORIZING FRAMING TRAJECTORIES AND FIELD SETTLEMENT

We described above how prominent actor groups within civil aviation framed the environmental issues of noise and emissions as these issues rose and fell in prominence. In this section, we draw from those findings and offer a theory of framing trajectories and field-level settlement surrounding contentious issues. In other words, we theorize about

how actor-level interpretations (framing trajectories) affect a field-level outcome (settlement). We believe that settlement can occur only when actors who are called on to change their behavior acknowledge the issue as central to the field and consider how to integrate the issue into their operations. As such, we theorize how actors' framing of issues changes (or does not change) over time, and how these changes might lead to settlement. Like other inductive work in organizational theory, our theoretical insights are based on a single field over a bounded time period; accordingly, we discuss the generality of our theory in the discussion section.

We begin with the framing trajectories present in our data, shown in Figure 3. Our study revealed four distinct framing trajectories followed by field actors in their discourse on environmental issues: buffering dominant, integrating dominant, mixed buffering/integrating, and a "counterclockwise turn" from buffering to integrating.⁸ We posit that the different framing trajectories we identified result from the positions that actors occupy in the field with respect to one another and relative to a concerned audience, as on a theater stage (Friedman, 1994; Goffman, 1959). Our conceptualization of position begins with our observation, in Figure 2, that certain groups of actors are directly linked to certain issues in societal discourse. Actors linked to an issue in this way are highly exposed to pressure from audiences concerned about the issue, and we term these "front-stage" actors because the spotlight is turned on them. But this is not the only position exposed to pressure related to the issue. We theorize that groups of actors that are not directly linked to an issue, but are in close contact with a concerned audience, will also feel a degree of pressure. We term this the "middle stage" position. Even though they are not directly linked to the issue currently dominating attention, these actors, by virtue of their contact with concerned audiences, may be sensitized to the audiences' concerns and may fear becoming "collateral damage" if the issue is not settled. We contrast the front-stage and middle-stage positions to the backstage one, occupied by actors not linked with the issue and with no direct contact with the concerned audience. We would not expect these actors to experience much pressure related to the issue at hand. In sum, we posit that front-, middle-, and backstage actors face

⁸ Conceivably, other trajectories are possible, such as a "clockwise turn" from integrating to buffering; however, only the four trajectories we describe were observed in our data.

different levels of pressure surrounding an issue, and will consequently have different framing trajectories.

To understand how framing trajectories are related to position, consider first backstage actors—those who are not directly linked to the issue and who are not in direct contact with a concerned audience.⁹ These actors are depicted on the top row in Figure 4, which shows prototypical framing trajectories at various points in time over the issue cycle. In this study, backstage actors included suppliers (such as consultants and equipment manufacturers) and collective actors (such as trade associations).

We found that, for such actors, the tenor of issue framing remained constant even as issues rose and fell in salience. Suppliers maintained a stable, integrating frame; this is not surprising, as the integration of environmental issues into the core aviation business would imply changes in process and equipment, which they supply or otherwise assist with. In other words, consistent with Kaplan's (2008) notion that frames and interests are interrelated and define each other, these actors frame environmental management in a way that accords with their commercial interests, unfettered by the pressure that comes with being directly linked to a contentious issue and/or being in direct contact with a concerned audience.

Collective actors also maintained a consistent framing, although, this time, buffering dominant. Actors such as trade associations and industry groups speak and lobby on behalf of organizations or professions, and are not directly linked to environmental issues in societal discourse (Figure 2); nor do they come in direct contact with the concerned audience in this case (i.e., the flying public). Their role is to represent and defend the interests of their members (Barnett, 2013; Galvin, 2002), mostly toward regulators, and they have been described as "reactionary forces rather than progressive, dedicated to preserving traditional entitlements and characteristics" (Abel, 1989: 131; quoted in Greenwood, Suddaby, & Hinings, 2002: 62). Without direct contact with a concerned audience, they can pursue their mandate

freely. Thus, it is not surprising that this actor group takes a more resistant, or buffering, stance toward institutional pressure. At the very least, they can "buy time" for their members by pushing back on the pressure placed on their members when issues rise in prominence. These findings lead us to propose:

Hypothesis 1. Backstage actors, or organizations that are not linked to an issue and that are not in direct contact with a concerned audience, maintain either buffering-dominant or integrating-dominant framing over the issue cycle.

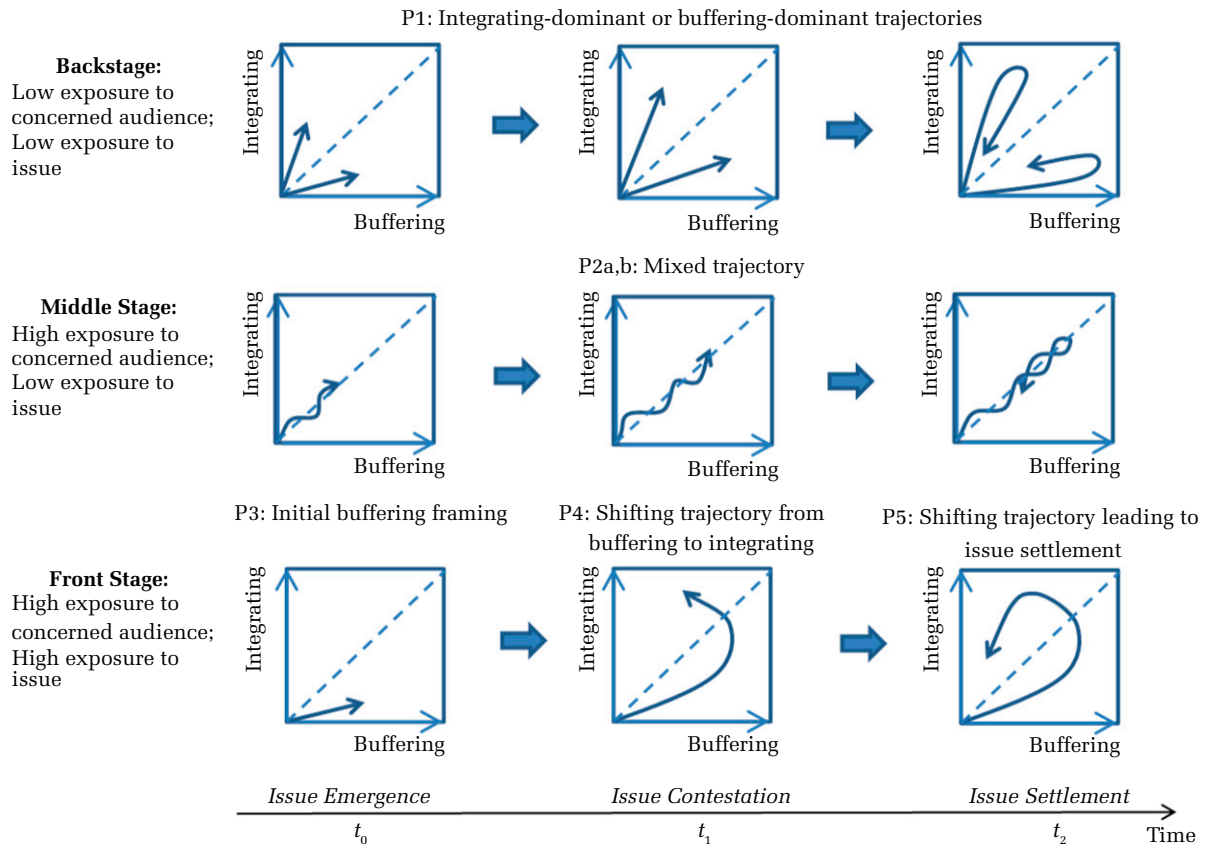
The trajectory depicted on the middle row in Figure 4 is characteristic of the middle-stage position: actors who are not directly targeted by the issue dominating the current cycle, but who are in direct contact with a concerned audience. In our context, airlines occupied this position for the noise issue, and airports occupied it for the emissions issue. Both were in contact with the flying public, but airports were linked to the noise issue and airlines to the emissions issue. As we described in our results section, we found that middle-stage actors used a mixed framing—a relatively equal combination of buffering and integrating frames over time. Unlike backstage actors, these actors were in contact with the concerned audience, and as such would be more circumspect in their framing. We argue that these actors strive to maintain strategic ambiguity (Eisenberg, 1984; Giroux, 2006; van Dijk & Kintsch, 1983) in their stance toward the current issue. Actors who are in direct contact with a concerned audience but not directly linked to an issue need not "fear" the issue as much as the front-stage actors, and thus have less need to react defensively (i.e., buffer). But, at the same time, these actors may fear guilt by association in the eyes of the concerned audience, even though they are not called upon to respond directly to the issue (Briscoe, Gupta, & Anner, 2015). Because they are in contact with the concerned audience, to dismiss the issue entirely would be risky. We posit that these middle-stage actors equivocate and "play both sides of the coin" by showing openness to the issue while keeping a distance from it, resulting in a mix of buffering and integrating frames. Thus:

Hypothesis 2a. Middle-stage actors, or organizations that are not linked to an issue but are in direct contact with a concerned audience, tend to use an equal mix of buffering and integrating frames over the issue cycle.

We posit further that this equivocation of middle-stage actors puts pressure on front-stage actors to address the issue proactively. When middle-stage

⁹ In our context, the concerned audience is the flying (or general) public. This audience is concerned with the environment and is a core resource holder for the civil aviation field. We note, however, that in other contexts other audiences may be more salient. For example, the concerned audience for a corporate governance issue such as director independence might be institutional investors rather than the general public (Okhmatovskiy & David, 2012).

FIGURE 4
Framing Trajectories and Actor Position



actors express integrating frames, it creates a form of peer pressure from within the field that echoes the calls for change. The actors who are more directly linked to the issue (front-stage actors) become more isolated in their stance, and apprehend a lack of strong support from middle-stage actors as the issue rises in salience.

Hypothesis 2b. The equivocation of a mixed framing by middle-stage actors puts pressure on front-stage actors to adopt an integrating framing.

Finally, we consider front-stage actors themselves—those directly linked to an issue and in direct contact with a concerned audience (bottom row of Figure 4). During the period of issue emergence, when an issue is rising in salience within a field, front-stage actors begin to face a threat to their legitimacy as the concerned audience’s attention focuses in on them. Drawing on the threat-rigidity hypothesis (Dutton & Jackson, 1987; Staw, Sandelands, & Dutton, 1981), we posit that actors faced with a rapid rise in issue salience in which

they are the primary focus of attention will respond initially with buffering frames. Actors confronting a situation of threat initially tend to revert to established routines and procedures rather than new or exploratory search efforts, in an effort to reduce the uncertainty linked to the threat (Dutton & Jackson, 1987). In addition, actors may not have the capabilities required for integration, leaving buffering as the most likely (or even only possible) response. This initial response was evident in the framing trajectories of airports during the early stages of the noise debate and of airlines in the early stages of the emissions debate (Figure 3). This leads us to predict:

Hypothesis 3. Front-stage actors, or organizations that are linked to an issue and in direct contact with a concerned audience, tend to express buffering-dominant frames during issue emergence, thereby mitigating against settlement.

Our data suggest, however, that the tenor of actor framing around an issue may shift as the issue becomes more contested. In particular, maintaining a buffering

stance in the face of ongoing pressure may be unsustainable for front-stage actors, for several reasons. Denial and resistance have been shown to be poor strategies with which to address legitimacy threats. As Elsbach, 1994: 73) argued, in cases of controversy:

... accommodative signals (i.e., acceptance of responsibility, admission of the existence of a problem, and actions to remedy the situation) have proved more effective than defensive signals (i.e., insistence that a problem does not exist and actions to resume normal operations).

This argument is consistent with recent studies that have shown that highly monitored firms are more likely to respond substantively to institutional demands (Marquis & Qian, 2014; Okhmatovskiy & David, 2012). In our context, therefore, front-stage actors may realize that buffering is not assuaging concerned audiences and that acknowledging the central importance of the issue and integrating it into the business core is more effective. Second, “understandings of how to achieve and measure complex social goals may improve, reducing the gap between specified means and ends” (Bromley & Powell, 2012: 518); in other words, the demands related to issues may become more clearly defined over time, and organizations’ understandings of and capabilities for dealing with these demands may improve, thereby making integration more attainable. Third, fear of external regulation and peer pressure from within the industry appear to have contributed to the shift of front-stage actors from buffering to integrating. Several studies have shown that the threat of externally imposed regulation can act as a powerful motivation for firms to adopt voluntarily more stringent environmental protection standards (Barnett & King, 2008; Reid & Toffel, 2009). Finally, the mechanism of peer pressure has been shown to be an effective tool with which to enhance firm compliance to industry self-regulation (Lenox & Nash, 2003). When faced with the threat of external public pressure, industry leaders can themselves create pressure on industry laggards to adopt environmental protection initiatives (Delmas & Toffel, 2008; King & Lenox, 2000). Moreover, as discussed above (Hypothesis 2b), equivocation from industry peers (middle-stage actors) can signal to front-stage actors that they cannot count on full support within the field for their resistance of issues. Together, these arguments suggest that the use of buffering frames may decline and the use of integrating frames may increase over time, resulting in the counterclockwise turn depicted in the bottom row of Figure 4. Thus, we posit:

Hypothesis 4. When faced with negative moral judgments, the threat of external regulation, and pressure from within the industry, front-stage actors transition from buffering-dominant to integrating-dominant framing.

What do these framing trajectories imply for the likelihood of field settlement? “Field settlement” can be said to occur when a “generalized sense of order and certainty returns” to the field (Fligstein & McAdam, 2011: 10), and when agreement about field rules and about “what is at stake” has been reached (Rao & Kenney, 2008). Operationally, we conceptualize field settlement surrounding an issue as occurring when a framework for action has been put in place. Prior research has found that “frames shape interpretations of the environment and subsequent strategic choices” (Kaplan, 2008: 729), and, more specifically, that meaning systems affect tangible responses to institutional pressure (George et al., 2006; Love & Cebon, 2008). We posit that the “turn to integrating” by front-stage actors is an antecedent of settlement because it signals to all field members that the actors most directly tied to the issue have evolved in their stance toward it. They now frame the issue as being part of regular business activity within the field, which opens the door to the acceptance of a common framework guiding action. This does not mean total agreement has been reached: even as front-stage actors are tilting toward integrative framing, other field actors may still be using buffering-dominant frames around the issue, such that a unified consensus on issue framing is not required for settlement to occur (Ansari et al., 2011; Fligstein & McAdam, 2011). Moreover, in this study, we observed a time lag between the shift to integrating frames by front-stage actors and the decline in the volume of discourse around the issue across all actors. In other words, the turn to integrating frames by front-stage actors is an antecedent to the development of a broader, field-wide framework on how to address the issue tangibly. This reasoning suggests:

Hypothesis 5. A shift by front-stage actors from buffering to integrating frames is an antecedent to field settlement surrounding a contentious issue.

DISCUSSION

Taken together, our findings expand current understandings of issue framing and settlement within organizational fields. We found that actors’ framing of environmental issues within civil aviation followed varied trajectories that depended on actor position with respect to the dominant issue in the field. Our study

thus contributes to the growing body of research that explores the heterogeneity and complexity of organizational fields (Greenwood et al., 2011; Lounsbury, 2001, 2007; Wooten & Hoffman, 2008) and responds to recent calls for attention to meaning construction within organizational theory (Barley, 2008; Gray et al., 2015; Powell & Colyvas, 2008; Suddaby, Elsbach, Greenwood, Meyer, & Zilber, 2010). Below, we expand on the main theoretical contributions of this study and explore avenues for future research.

Framing Trajectories and Issue Interpretation

Our first contribution is our novel approach to issue framing. While there exists a long tradition of studying issues from a public policy and public attention perspective (e.g., Downs, 1972; Felstiner, Abel, & Sarat, 1981; Hilgartner & Bosk, 1988), issue lifecycle models within this tradition have been dominated by a “natural history” perspective that describes social issues as evolving through prototypical career stages (Bigelow, Fahey, & Mahon, 1993). This perspective tends “to reify social problems by granting them an existence that is quasi-independent from actors who deal with them and the cultural institutions in which they are embedded” (Lamertz et al., 2003: 83). Our research builds on more recent formulations that propose that issues cannot be disassociated from the (at times, competing) interpretations advanced by field actors, and that the meaning of an issue is actively constructed using cultural frames (Gray et al., 2015; Hoffman, 2001a; Lamertz et al., 2003).

Specifically, we provide a framework to describe variation in framing (i.e., buffering vs. integrating) over time, in the form of a *framing trajectory*. An advantage of the concept of framing trajectory is to move beyond the “cooperation–competition dichotomy” that has characterized prior studies of framing struggles (Cornelissen & Werner, 2014: 211; Fligstein & McAdam, 2011; Rao & Kenney, 2008).¹⁰ At any given time, actors’ framing activity may include contradictory or opposite frames that create ambiguity

(Eisenberg, 1984; Giroux, 2006; Sonenshein, 2010). For example, our framework captures framing activity that uses concurrently buffering and integrating frames (as illustrated in the “mixed framing trajectory” shown in the middle row of Figure 4), highlighting the important framing behavior of actors who “mediate between the various political interests of other actors and groups,” and thereby provide “a basis for a possible new field settlement” (Cornelissen & Werner, 2014: 211).

The concept of framing trajectory also contributes to a dynamic conceptualization of framing behavior. Existing research on framing has been criticized for adopting a static perspective on meaning work, thus prompting recent calls for research to “explore framing as dynamic processes of meaning construction within and across groups and organizations” (Cornelissen & Werner, 2014: 222). Our empirical description of framing trajectories suggests that changes occurring over time in actors’ framing activity may follow recognizable patterns, and provides a framework with which to conceptualize framing evolution. Few prior studies have used graphical representations of actual data to capture meaning evolution (e.g., Meyer & Höllerer, 2010; Weber, 2005; Zilber, 2006), yet visual tools are well suited to capture synthetically how complex interpretations evolve over time. In particular, the mapping of framing trajectories used in Figure 3 allows for a novel way to depict framing evolution around specific issues. Further empirical and theoretical research is needed to explore other such framing trajectories, and to examine the dynamic interaction happening between actors that may underlie such trajectories.

Actor Position and Issue Framing

Our second contribution is to show how framing trajectory is influenced by actors’ shifting exposure to a contentious issue and to a concerned audience. Scholars have long emphasized that actor positions in a field constrain how they interpret issues and limit the types of frames that they can strategically adopt (Creed et al., 2002; Kennedy & Fiss, 2009; Meyer & Höllerer, 2010; Phillips & Zuckerman, 2001; Rhee & Fiss, 2014). But, in prior conceptualizations, actor positions were often defined in structural terms, and seen as relatively static over long periods of time. For example, Leblebici and colleagues (1991) conceptualized position (center vs. periphery) as resource dependent and suggested that central actors face stronger institutionalized expectations while

¹⁰ Additionally, our distinction between buffering and integrating framing categories (each encompassing multiple frames) provides a way of conceptualizing actors’ interpretations of issues without relying on notions of competitive advantage or disadvantage. Unlike the “opportunity frame” used in prior work, an “integrating frame” does not necessarily interpret the environment as a source of relative competitive advantage. Similarly, “buffering frames” need not be tied to notions of competitive threat.

fringe actors (smaller players with fewer resources) were more likely to introduce radical innovations. More recent conceptualizations of actor position have emphasized status or reputational hierarchies (McDonnell & King, 2013; Phillips & Zuckerman, 2001; Sherer & Lee, 2002) or social identities (Creed et al., 2002; Meyer & Höllerer, 2010), perspectives that implicitly depict position as hard to change. In related work, discourse scholars define “subject positions” within a field as socially constructed “categories of identity,” and highlight the attempts of actors to negotiate and manipulate these subject positions through discourse (Maguire & Hardy, 2009: 150; Maguire, Hardy, & Lawrence, 2004). In the conceptualization advanced here, in contrast, the position (i.e., front, middle, or backstage) occupied by actors changes according to the shifting focus of pressure linked to the rise, fall, and replacement of issues. In other words, rather than conceive of the front/middle/backstage distinction as driven either by relatively static organizational characteristics, social identities, or structural positions, we show how framing activity within a field can be influenced by position determined by exposure to a salient issue (see also Wooten & Hoffman, 2008: 140) and to a concerned audience.

In this way, we contribute to previous work that has emphasized the interaction between core and peripheral actors in the evolution of organizational fields (e.g., van Wijk et al., 2013; Zietsma & Lawrence, 2010). While Zietsma and Lawrence (2010) have shown that peripheral actors can engage in boundary work to contest and redefine field boundaries, we show that not all incumbents are similarly exposed to the pressure resulting from such contestation around issues, and that pressure for change may also emanate from other organizational actors within the field. We thus call for increased scholarly attention to the shifting exposure of organizational actors to institutional pressures within fields (Okhmatovskiy & David, 2012), which may be channeled by the discourse of various organizational actors both within and outside the field.

Issue Framing and Field Settlement

Building on these first two contributions, our third contribution is to explicate a path to issue settlement within organizational fields. In their study of eight cases of “intractable environmental conflict,” Elliott et al. (2003: 435) found that “frames can remain remarkably stable . . . thereby

reinforcing conflict dynamics over time and rendering conflicts intractable.” These authors speculated, conversely, that frame shifts could make conflicts more tractable, but cautioned that such “reframing” was difficult. While their focus was on specific environmental disputes rather than on broader environmental issues, our results build on theirs and suggest one path through which frame change (and ensuing field settlement) can occur. Other recent work has looked at how opposing views (e.g., anchored in conflicting institutional logics) may create tensions within and between organizations (Battilana & Dorado, 2010; Besharov, 2014; Jay, 2013; Pache & Santos, 2010). Our work builds on recent studies that have brought attention to the processes through which opposing views may coexist in dynamic tension over time (Dunn and Jones, 2010; Smets, Jarzabkowski, Burke, & Spee, 2015). We have shown that the interpretations of organizational actors may evolve, such that the perceived intractability of an issue (or the perceived irreconcilable nature of conflicting views) is itself subject to social construction and may change over time. But, in contrast to studies that have pointed to hybridization as a path toward the resolution of conflicting interpretations (York, Hargrave, & Pacheco, 2016), we highlight the importance of frame shifts by front-stage actors, or those at the center of a contested issue, as an antecedent to field settlement around an issue. Moreover, we suggest a set of conditions that precipitate the frame shift of front-stage actors: public moral judgments, threat of regulation, and peer pressure from other industry actors. This contrasts with the mechanisms for frame shifts suggested by Elliott et al. (2003); namely, changes in actor identity and conflict mediation. While not discounting the potential of such mechanisms, we suggest that other mechanisms can also come into play. Like Elliott et al. (2003: 435), we believe that examining how and why frames shift can help us better understand when issues are likely to be settled versus remain intractable.

It is important to note that field settlement around an issue does not imply definitive resolution. Field actors may come to collective agreement about what can and should be done in response to an issue (e.g., the new noise standards or ambitious targets for emissions reduction witnessed in our study), but this does not mean that stakeholders in larger society (governments, activists) will consider the issue resolved. Thus, issues considered settled by actors within the field may once again become the subject of intense debate (Bigelow et al., 1993;

Zietsma & Lawrence, 2010).¹¹ Another possibility is that field actors agree upon and adopt a general framework to address an issue, but technical solutions are lacking. The issue would thus be settled but practically unresolvable, creating a situation that could lead to a return to contestation in the future. Furthermore, while we have described empirically one possible path to issue settlement at the field level (through a shift from buffering to integrating frames), we recognize that other outcomes for the field are conceivable. A given issue may be eclipsed by new events, such that the level of debate and controversy within the field surrounding the issue may decline without front-stage actors ever experiencing the shift in framing from buffering to integrating. This would lead to “dormancy”: a situation where the debate recedes but the issue is not integrated into the core of the field. This form of crowding-out between issues (e.g., meta-issues such as the environment or security) presents an interesting avenue for future research.

Finally, we believe the buffering versus integrating distinction is also useful because it can be predictive of action toward an issue. As Mahon and Waddock (1992: 25; emphasis added) noted, “the ‘stance’ that a stakeholder takes with regard to an issue involves the extent to which the stakeholder *accepts* the need to deal with the issue or not.” By definition, buffering frames express a resistance stance to issues, while integrating frames express an acceptance of issues as “part and parcel” of business activity in the field. As numerous authors have argued, interpretative processes precede response to institutional pressure (George et al., 2006; Gray et al., 2015; Tilcsik, 2010: 1475). While not discounting the possibility of superficial response, we suggest that the relative presence of buffering versus integrating frames in a field can be an important indicator of substantive action toward an issue within the field.

Limitations and Avenues for Future Research

The limitations inherent in our chosen context and methodology suggest possible scope conditions to our theorizing as well as opportunities for future study. First, we studied only one organizational field, which necessarily places limits on the generality of our findings. Aviation is highly

regulated, which implies that pressures for conformity and legitimacy may arguably be higher than in less regulated industries (Kennedy & Fiss, 2009). The highly regulated nature of aviation may create more incentives for actors to preemptively reach settlement on issues through self-regulation. At the same time, we find it noteworthy that significant heterogeneity and contestation are present in such a highly regulated context, given the strong mimetic forces that accompany regulation (DiMaggio & Powell, 1983; Scott, 2001). Finally, because we studied only one organizational field, the typology of framing trajectories that we uncovered may be idiosyncratic and/or incomplete. We expect that researchers will discover additional trajectories in other fields, which will provide more evidence of possible scope conditions to our theorizing.

A second limitation is linked to the source of archival data used in this study. While we used extensive fieldwork to better understand the framing activity of actors, we relied on a single trade publication to track actor framing shifts over time, which arguably represents a source of potential bias. However, the specific tactical nature of this publication and its status as official source of information for various actors in the field serves to mitigate this potential bias. *Aviation Daily* is also likely to underrepresent actors such as NGOs or regulators, who exert an important influence in the field. Accordingly, we focused our study on the framing of those actors who are the recipients of pressure (airlines, airports, suppliers, collective actors) rather than those exerting the pressure (such as NGOs, social movements, or regulators). Future research could, for example, examine the mechanisms by which industry actors are propelled to the “front stage” by NGOs or activists. Finally, it is also likely that *Aviation Daily* underrepresents aviation actors outside of North America and Europe, and, as such, our findings apply best to these latter contexts.

Third, our research did not address directly whether changes in issue interpretation lead to change in firm behavior within this industry. Although prior research posits that interpretation is antecedent to action (Bansal & Penner, 2002: 313; Barr et al., 1992; George et al., 2006; Kaplan, 2008; Tilcsik, 2010) and the standards and targets we identify as indicative of settlement are clear and quantifiable, we cannot rule out the possibility that the interpretive shift toward more integrative discourse may prove to be largely ceremonial. Future

¹¹ Aircraft emissions and noise, for example, are unlikely to be solved once and for all, and may reoccupy the center of industry discourse periodically.

research should examine specifically whether integrative framing is associated with better environmental performance.

We conclude by reiterating the need for a deeper engagement of institutional theory with the literature on issue interpretation and framing. Behind the variation in structures and practices that diffusion studies have recently revealed lies diversity in how actors interpret and frame issues and the pressures associated with them. As Powell and Colyvas (2008: 266) have argued, “macro lines of analysis” such as institutional theories of field change require models that “attend to enactment, interpretation, translation, and meaning.” Environmental issues do not simply exist “out there” in reified fashion, but are instead constructed and reconstructed through interpretive activity. We have endeavored to contribute to understanding of this process by mapping how field actors interpret issues in their field. We believe that the utility of the theory presented here resides in its capacity to represent changing actor interpretations of contentious issues, and to suggest how issues become part of a field’s social order. In this way, we contribute to bridging the “micro/macro gap” and build understanding of how actor-level framing can lead to field-level conventions (Gray et al., 2015: 116). Beyond its theoretical importance, moreover, understanding how field actors come to adopt an integrative stance toward environmental issues will help us understand how improved environmental performance comes about. Managers, activists, and policy makers alike may use our framework to map the shifting positions of stakeholders around an issue. Yet, because no one model of issue evolution can fully capture the complexities associated with ongoing societal debates (Lamertz et al., 2003: 91), we hope that our work opens avenues to further studies examining how organizational fields move toward weaving important social issues into the fabric of their daily activities.

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