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Constructing Authority in Disaster Relief Coordination

Matthew A. Koschmann
Jared Kopczynski
Aaron Opdyke
Amy Javernick-Will

University of Colorado Boulder
Boulder, CO, USA

Abstract: The purpose of our study is to explore the social construction of authority in disaster relief coordination. We emphasize the ways in which stakeholders draw upon various discursive resources in order to establish or preserve their authority to act within a certain problem domain. We review literature on authority, coordination, communication, and collaborative work to provide a theoretical framework that informs our empirical examples. Next we present a case study of disaster relief coordination in the Philippines following Typhoon Yolanda (known internationally as Haiyan). Our case focuses on home reconstruction in the Cebu province of the Central Visayas region of the Philippines, one of the areas hardest hit by the storm where most of the homes were destroyed or severely damaged. This case demonstrates organizations do not have authority within this problem domain, but instead construct authority through practice and sensemaking in order to accomplish a variety of individual and collective goals; authority is in a constant state of negotiation as various organizations coordinate with each other (or not) to provide effective disaster relief. We conclude with a discussion about the contributions and implications of our research.

Introduction

Disaster relief work in developing nations entails a tremendous human effort to rebuild affected communities and reestablish order. Multiple parties are needed to address the vast amount of needs that arise in disaster situations, including healthcare, sanitation, food, shelter, and infrastructure. No single entity has the capacity or power to handle all these needs on their own, so effective relief work often involves some level of collaboration and coordination among government agencies and nongovernmental organizations, professional and volunteer aid workers, public and private donors, as well as local populations and municipal representatives. Consequently, large-scale disasters are usually managed by a central agency like the United Nations Office for Coordination of Humanitarian Affairs (UNOCHA) whose mission is, in part, to “mobilize and coordinate effective and principled humanitarian action with national and international actors.” Their goal is to develop a framework for each actor to contribute to the overall response effort, thus ensuring at least the perception of cooperation and partnership among the relevant parties.

However, the mere presence of a central agency such as UNOCHA is rarely sufficient to achieve coordination, and despite the discourse of coordination that is common in disaster planning and response (see Clarke, Chess, Holmes, & O’Neill, 2006) things are always more complicated in the field. Even with

their common goals of relief and restoration, the multiple parties involved often have different ways of operating, varied goals and motivations, and sometimes even competing interests and strategies. Furthermore, UNOCHA does not have formal authority over many of the other organizations and constituents involved, nor do they always have the authority to take action on certain initiatives and projects in affected regions. Despite the presumption or appearance of a controlled response orchestrated by a central agency, the coordination of disaster relief involves complicated arrangements of power, expertise, jurisdiction, and capacity that are continually in flux and require the ongoing consent of the parties involved. Thus establishing authority is a central problem for disaster relief coordination, which is a key challenge for collaborative work more broadly. Yet in this context the issue is not merely asserting the authority one *has*, but rather continually *constructing* some notion of authority that is accepted by others as legitimate. How this can happen and what it can look like are the foci of the present study.

Like other forms of collaborative work, effective disaster relief entails establishing a legitimate form of authority capable of coordinating the diverse interests of multiple stakeholders, but apart from hierarchical mechanisms of control (Lawrence, Hardy, & Phillips, 2002). Management and organizational studies traditionally have depicted authority as an objective feature of bureaucratic relations that is exercised through administrative power and control (Kuhn, 2008). But the complexity of collaborative work makes it increasingly difficult to predict and control who is responsible for accomplishing various tasks (Kahn & Kram, 1994). Collaboration also obscures the boundaries among partners and creates ambiguous authority relations that are difficult to reconcile (Koschmann, 2013). Instead of conceptualizing authority as a formal position in a hierarchy, collaboration pushes us to understand authority as a distributed phenomenon that is worked out in practice as stakeholders negotiate the meanings and interpretations of their work. Authority is thus a social accomplishment that is achieved and sustained in communication, subject to continual revision depending on how people interact with each other, and thus shifts in the very communication intended by those to define and exercise authority. Therefore, a key issue for disaster relief work is understanding how various groups and organizations develop and maintain the authority perceived as necessary for successful coordination in a particular context, especially since authority is what gives coordination its semantic positioning and consequentiality in the first place.

Accordingly, the purpose of our study is to explore the social construction of authority in disaster relief coordination. In particular, we emphasize the ways in which stakeholders draw upon various discursive resources in order to establish or preserve their authority to act within a certain problem domain. We begin by reviewing relevant literature on authority, coordination, communication, and collaborative work, which provides a theoretical framework to inform our empirical examples. Next we present a case study of disaster relief coordination in the Philippines following Typhoon Yolanda (known internationally as Haiyan), a catastrophic storm that killed over six thousand people and devastated much of the physical infrastructure throughout the island nation, thus requiring a substantial relief effort among dozens of agencies and organizations. Our case focuses on home reconstruction in the Cebu province of the Central Visayas region of the Philippines, one of the areas hardest hit by the storm, where most of the homes were destroyed or severely damaged. This case demonstrates organizations do not *have* authority within this problem domain, but instead *construct* authority through practice and sensemaking in order to accomplish a variety of individual and collective goals; authority is in a constant state of negotiation as various organizations coordinate with each other (or not) to provide effective disaster relief. We conclude with a discussion about the contributions and implications of our research.

Literature Review and Research Questions

Although our literature review is sequenced first in this article, our examination of previous research was concurrent and reflexive with our empirical investigation. This process of “theoretically-informed induction” (Tracy, 2007) ensured that our conceptual framework was guided by our empirical

observations and vice versa. Our study began with the opportunity to explore general issues of coordination among the relief work associated with Typhoon Yolanda in the Cebu region, which we describe later in our research methods section. We followed the principles of inductive, practice-based research (Craig & Tracy, 1995) to identify practical issues that people were facing and see what specific topics would emerge to guide a more targeted investigation. After several months of observations and interviews with key informants we identified authority as a central issue that warranted further analysis—some aspect of authority seemed to be at issue in many of the meetings and interactions we observed, as well as a notable topic of conversation in our discussions with various relief workers. We began reviewing communication and collaboration literature on authority to better inform our subsequent fieldwork and data analysis.

Problematizing Coordination and Authority in Collaborative Work

Collaboration is a hallmark of contemporary organizing. The complexity, uncertainty, and interdependency of work makes some form of collaborative work necessary for successful outcomes across many industries and sectors, and presents unique opportunities for innovation and creative problem solving (Faraj & Xiao, 2006). Organizational collaboration has thus received substantial attention from scholars in many fields including management (Hardy, Lawrence, & Grant, 2005), organizational studies (Majchrzak, More, & Faraj, 2012), behavioral science (Wood and Gray, 1991), communication (Lewis, 2006), planning, (Innes & Booher, 2010), nonprofit studies (Austin & Seitanidi, 2012), and public policy (Rosenau, 2000). Although collaboration may involve highly integrative, transformative relationships among organizations, many organizational collaborations are characterized by transactional relationships that simply entail a sufficient level of *coordination* among stakeholders in order to achieve some higher-order collaborative goal(s) that could not be accomplished individually. Coordination generally entails a minimal level of cooperation in terms of information sharing and task alignment, though distinct from formal collaborative arrangements that are characterized by more integrative relationships (Austin, 2000).

Such is the case with disaster relief work, where effective responses are presumed to necessitate coordination among multiple agencies and organizations in order to achieve more comprehensive provision and reduce service redundancies (Nolte, Martin, & Boenigk, 2012). Coordination is clearly the ideal in disaster relief and humanitarian work, where successful projects are often defined in terms of their level of coordination, and the lack of coordination is frequently cited as the central problem in failed efforts (see Balcik et al., 2010; Benini, 1998; Drabek, 2007; Jahre & Jensen, 2010; Rey, 2001). Even with continuing challenges and numerous examples of unsuccessful initiatives, coordination continues to receive increased attention and support, especially due to the scarcity of global resources, issues of accountability, and advances in information communication technologies (Lindenberg & Bryant, 2001). The significance of coordination was further bolstered through the United Nations humanitarian reform agenda that introduced the “cluster approach”—a new system that organizes relief agencies into eleven different essential service areas (e.g., shelter, health, nutrition), which is now the norm for international disaster and humanitarian relief work.

Yet despite being taken for granted as essential in the disaster response community and scholarly literature, the notion of coordination is also problematic. Coordination has been critiqued as a “shell term” (Smith, 2005) that does not function descriptively but remains to be filled by those have power to give and sustain its meaning (see Bartesaghi, 2014), and identified as one of the three c-shibboleth terms of disaster planning and response (along with communication and cooperation, see Clarke, 1999; Clarke et al., 2006). Coordination’s emptiness can be seen in its tautological relationship with successful disaster response, where it is claimed that coordination is necessary for successful response and recovery, and success is defined in terms of coordinated efforts. Thus Bartesaghi (2014) concludes that coordination is a key term in the “metadiscursive vocabulary of disaster”—well-formed bureaucratic language that

reflexively organizes social relations in ways that legitimate the very conditions of its use. With all this in mind, our challenge in the present study is to recognize that coordination is both given and problematic, taken for granted in disaster contexts but also exposed as troublesome under further scrutiny.

In this context a key issue is constructing and maintaining a sufficient level of authority in order to work as a legitimate actor in a given problem domain. Even in collaboration—which tends to be more decentralized and egalitarian than other conventional forms of organizing—some level of authority is still necessary to ensure perceptions of legitimacy and accountability (Okhuysen & Bechky, 2009; Taylor & Van Every, 2011), and to reconcile the knowledge differences, power asymmetries, and other “jurisdictional conflicts” (Kellogg, Orlikowski, & Yates, 2006) that are characteristic of collaborative work. The challenge, however, is that this type of coordination involves interorganizational relationships that are negotiated through ongoing communicative process that do not depend on market or hierarchical mechanisms of control (Lawrence et al., 2002)—compliance cannot be bought or imposed. Therefore authority is not a rational-legal or legitimate form of power that is derived from one’s position in a bureaucracy, as assumed in the early work of Fayol (1916/1949), Weber (1922/1968), and Barnard (1938).

For collaboration and coordination, authority is not something people “have” by virtue of their place within an organizational structure, but rather a negotiated phenomenon that is distributed among various stakeholders. This approach to authority emphasizes more emergent forms of legitimacy, accountability, and influence that surpass hierarchies and boundaries (Kahn & Kram, 1994; Okhuysen & Bechky, 2009). Authority is worked out in practice as people engage with each other and make sense of their interactions, lending consent (or not) regarding the scope of their power over each other and the various tasks they are involved with—what Bartesaghi (2009, p. 16) calls a “discursive co-construction.” But how can local and situated interactions can give rise to broader systems of authority and legitimacy that can transcend space and time in order to coordinate work across domains of knowledge and expertise? If authority is not imposed from the “top” or exercised as an objective feature of hierarchical relations, how is it formed and maintained in practice, and how do people make sense of these social constructions? To address these questions we turn to previous literature on communicative constitution, practice theory, and sensemaking to enhance our understanding of authority in disaster relief coordination.

Practice, Sensemaking, and the Communicative Constitution of Authority

Within the field of organizational communication, scholars aligned with the Montréal School (see Brummans et al., 2014) have done the most extensive work to theorize authority as a negotiated and distributed phenomenon that is grounded in practice (see Benoit-Barné & Cooren, 2009; Brummans et al., 2013; Cooren, 2010; Kuhn, 2008; Taylor & Van Every, 2011; Taylor & Van Every, 2014). This research portrays authority as a process of *authoring* where people struggle to “write” an official version of their work that conveys particular notions of purpose, direction, and identity. This approach to authority relates to the textual existence or “modality” of organizations, where interrelated networks of meaning are “read” in certain ways to enable coordination (Kärreman, 2001; Westwood & Linstead, 2001). In this regard texts can be either concrete (tangible signs and symbols with a fairly permanent existence) or figurative (more abstract depictions of organizing) (Kuhn, 2008). Whether concrete or figurative, a textual approach helps explain why people often refer to coordination as being “on the same page,” even if not referring to a specific document or policy.

Furthermore, texts are not inherently authoritative but instead can develop authority through the processes by which they were authored. For this to happen, local interactions must “scale up” (Cooren & Fairhurst, 2009) and gain distance from their immediate circumstances, a process known as “distancing” (or *distanciation*, à la Ricoeur, 1991). The result is more than just a loose collection of texts, but rather an organizational abstraction taken to legitimate all the interactions this abstraction refers to (Taylor,

Cooren, Giroux, & Robichaud, 1996). As they gain distance from their original contexts, the textual outcomes of interaction become more ambiguous and abstract and tend to discard evidence of any particular authorship. This means that the contributions and intentions of specific people are ignored or excluded, and all that remains is an abstraction that becomes the focus of subsequent interactions. Thus for texts to become authoritative they must shed evidence of individual authorship and instead depict a collective accomplishment (even unintentionally) that is accepted as legitimate, credible, and even commanding. This “vanishing” (Taylor & Van Every, 2011) of individual authorship enables textual abstractions to develop authority. Authority is now attributed to the abstraction itself instead of any specific individual, collective action can now be taken in the name of this abstraction, and agency can even be ascribed to this abstraction. Authority is not *in* a hierarchical position nor *in* a person who gives commands, but rather in the *process* of author-ing the legitimate representation of the collective—authority is a shared recognition about a unitary source of agency that can coordinate activities and subordinate divergent interests. All of this comes together when authority is made present (“presentification,” Cooren, 2006, 2010) in interaction as people invoke various organizational texts and other discursive resources as sources of agency to justify certain actions or decisions, both in their immediate practices and their retrospective sensemaking.

The key point is that authority is *relational* because it emerges from interactive circumstances and can only be understood in reference to the actions of others. Thus many scholars approach these issues from the perspective of *practice*. That is, authority is seen as emerging from ongoing streams of recurrent, everyday activities, rather than objective features of an organizational context or structural arrangement. Although there is no unified theory of practice (Schatzki, 2006), a principal tenet of a practice perspective is that social life is an ongoing construction and emerges through people’s continuing actions (Feldman & Orlikowski, 2011). Practices do not merely describe what people do, but instead are central activities for meaning production and identity formation (Nicolini, 2009). Taking a practice approach to authority and coordination means focusing on the relationship between specific occasions of situated action and the broader social context in which those actions take place (Feldman & Orlikowski, 2011). Coordination authority is thus a nexus of interconnected practices that constitute a “site” (Nicolini, 2011) of cross-domain knowledge and expertise.

Additionally, the meaning of these practices is not always evident or realized in the moment, but rather constructed retrospectively as participants make sense of their interactions. The relationship between practice and sensemaking is then an iterative one wherein the ongoing stream of actions that make up practice are punctuated and informed by periods of sensemaking. Sensemaking here quite literally describes the process wherein individuals or groups of individuals work to make sense of previous interactions, problems, explanations, and situations (Weick, 1995). This is not necessarily a cognitive process, but an interactive process where people take part in (re)constituting understandings of their environment. As Taylor and Robichaud (2004) have explained, sensemaking is pivotal for the construction of texts—within the text/conversation dialectic (Taylor & Van Every, 2000)—in that sensemaking “invokes language as members call forth knowledge of previous events through recollections and understandings of an appropriate response, given the situation” (p. 397). Conceiving of this relationship in this way then positions sensemaking as a component of the overall construction of authority within various sites. Thus, within the text/conversation dialectic, it is fruitful to think about the construction of texts as sensemaking and conversation within the ongoing stream of action that is practice.

Furthermore, if practice and sensemaking are sites of knowing (Nicolini, 2011), then different occupational communities have unique knowledge bases that are different from others who are not involved in their practice or sensemaking processes, making the mere transfer of information inadequate for successful coordination. Instead, coordination difficulties are more about language differences and alternative conceptualizations of work (Bechky, 2003), what Dougherty (1992) calls “interpretive problems.”

Consequently, a key task of coordination is reconciling these interpretive differences and integrating diverse understandings in ways that foster cooperation (Kellogg, Orlikowski, & Yates, 2006; Majchrzak, Moore, & Faraj, 2012).

Thus our conceptual framework combines research on coordination, practice, sensemaking, and communicative constitution to help explain authority in collaborative work. An important next step, however, is to examine the actual work of disaster relief coordination and the people involved in humanitarian efforts to understand how they practice and make sense of authority. We need to see what authority in disaster relief coordination actually entails, and we need more accounts from humanitarian personnel that demonstrate how they make sense of authority in their work. Therefore we turn to a case study of coordination and authority in the Philippines following typhoon Yolanda in 2013. Our goal is to offer several empirical examples that illustrate our conceptual framework and provide anchor points for subsequent research. The following research questions guided our investigation: Within the context of disaster relief coordination, what textual or discursive resources do people and organizations draw upon to convey authority? How do these people make sense of their authority in their work? How do people authorize themselves in relation to other stakeholders, especially when their authority may be in question? How do people make forms of authority present in their interactions, and with what effect?

Method

This study is part of a larger project investigating post-disaster reconstruction processes in the Philippines after Typhoon Yolanda in 2013[1]. This three-year project follows twenty reconstruction sites across the island nation to identify the various processes associated with resilient and sustainable infrastructure systems. The present study focuses on the Cebu province of the Central Visayas region of the Philippines. This area was in the direct path of the typhoon and experienced substantial destruction. Consequently, numerous humanitarian organizations and agencies converged in the area to provide relief. Though loosely organized through the United Nations Office for Coordination of Humanitarian Affairs (UNOCHA), the various organizations and agencies coordinated much of the work on their own. Our study focuses specifically on housing reconstruction projects in the area and the ways in which these stakeholders practiced and understood authority. Table 1 explains several key terms and acronyms that are used throughout our analysis.

Research Site

In the present study we examined reconstruction activities on Bantayan Island in the province of Cebu following Yolanda. The typhoon crippled a number of island provinces, but Cebu was unique in that the damage was concentrated in northern regions that were relatively isolated from the developed central urban areas. As such, aid organizations were forced into closer proximity in contrast to other regions that were impacted by the storm. Bantayan Island in particular is an interesting site because of its small size and limited connectivity; the island only has one port of entry about an hour from mainland Cebu. The resulting geographic remoteness and large presence of aid organizations led to authority-related struggles, ranging from design standards to operating locations. This jockeying for legitimacy and power led to our selection and examination of authority in the region. Despite these unique features, the island context is also comparable to other regions studied after Yolanda which will allow for future comparison on the practice of authority.

A key part of our research site was the “shelter cluster” that operated in Cebu province. A shelter cluster is one part of the larger cluster system created by the United Nations Office for Coordination of Humanitarian Affairs (UNOCHA) in 2006 to deal with coordination issues revolving around humanitarian

aid. Clusters are groups of humanitarian organizations (both UN and non-UN) working in the primary areas of humanitarian aid, such as shelter and healthcare. UNOCHA explains that clusters are created when humanitarian needs exist within a particular area, when there are many actors within that area, and when national authorities need coordination support. “Clusters provide a clear point of contact and are accountable for adequate and appropriate humanitarian assistance. Clusters create partnerships between international humanitarian actors, national and local authorities, and civil society” (UNOCHA: <http://www.unocha.org/what-we-do/coordination-tools/cluster-coordination>). The shelter cluster operating within the Bantayan region of Cebu was put in place to act as a central hub for all NGO activity within the area.

Data Collection

Data for this study came from two primary sources: field observations of coordination meetings and building sites, as well as in-depth interviews with taskforce NGO workers, government officials, and local community members. The third author travelled to the Philippines on two different occasions, which included four months of fieldwork approximately six months after the typhoon and again for three months approximately one year later. The majority of these visits focused on the identification of sites to track longitudinally (for our broader project) with a focus on collecting background data on NGO operations, including geographic selection, program objectives, target beneficiaries and early challenges. Observations of coordination meetings, inter-organizational meetings, informal communication, and on-site construction were documented through extensive field notes. In total, more than 240 hours of these interactions were observed over the course of the two field visits. For meetings, the researcher was seated in such a position to visualize the entire room of participants, capturing nuanced reactions in the audience. Observations within communities included both NGO accompanied and non-accompanied visits in order to capture sentiments with and without the presence of project partners.

Additionally, an initial 32 semi-structured interviews were conducted with primary NGO and government officials during the first visit. Questions focused on understanding how organizations were coordinating, asking questions such as “How does your organization coordinate across sectors?” On the second field visit an additional 167 semi-structured interviews were collected, primarily with community members. Further questions were also asked of NGOs and government agencies during this period. Questions focused on the role of community members in coordination and the evolution of NGO relations, such as “In recent months how has coordination changed?” Interviews were conducted in private locations such as NGO offices or community members’ homes and the use of a local translator was provided when a participant preferred to speak in Waray or Bisaya, the two most common local languages. For this paper we examined 67 of the interviewed collected from the Bantayan Island in the province of Cebu, totaling 590 single spaced pages of transcription.

The large amount of interview data within this project is viewed as a strength in that it allowed us to trace how participants were making sense of their environment over the course of time. Interviews with the same organizational members were often conducted more than once at different points in the development process. Important to our interview procedures was acknowledging the ways in which interviews provided the time and space for participants to reflect upon and make sense of their involvement in various reconstruction efforts. As Way, Zwi, and Tracy (2015) explained, if we take the ideas of communicative constitution seriously, then “it makes sense to treat interviews as opportunities for meaning making and transformation” (p. 2). Thus, as foreshadowed in our literature review, interviews served as moments of sensemaking that are inevitably informed by previous practices and then reflexively inform subsequent practices.

Data Analysis

Because of the considerable amount of data we have and the extensive amount of activity involved with the relief work in Cebu province, our case study does not focus in depth on any specific event or interaction. Instead, our goal here is to tell a broader story of authority and humanitarian coordination involving several projects and stakeholders over a longer period of time (see Browning, Beyer, & Shetler, 1995, as an exemplar of this approach). This is also consistent with other constitutive communication research that uses more longitudinal, case-based approaches that trace communicative constitution over time through extended observations and interviews (e.g., Blundell, 2007; Güney, 2006, Koschmann, 2013; Koschmann & Burk, 2016), which complements other work focused solely on more narrow conversational episodes. We moved towards a narrative approach through a series of analytical processes. First, interviews were read and coded for common themes. Through an iterative process of looking across the coded data and relevant scholarship, three key themes emerged as we interpreted the data. These processes are described in more depth below.

We began data analysis by reading through and identifying key themes in the data based on their forcefulness, recurrence, and repetition (Owen, 1984). The initial coding process was conducted within the software program NVivo (<http://www.qsrinternational.com/product>), which aided in understanding the prevalence of each theme. As key themes began to emerge, we continued to reread interview transcripts and typed field notes in a manner consistent with the constant comparison method (Strauss & Corbin, 1994). The second author conducted this preliminary data analysis and worked with other authors to confirm and validate the interpretations of each theme. Throughout this process, authority emerged as a key construct within this problem domain and shaped our interpretive framework moving forward. Data were then reread, coded, and interpreted with our attention directed specifically towards different themes surrounding authority. Within this coding process, authority was recognized as the various ways that participants explained—and demonstrated through our observations—their ability to act, make decisions, and marshal consent from other organizational actors.

We present the results of our study as a case study that highlights three analytic themes surrounding authority that emerged from our data. Our case emphasizes one organization in particular, Young Pioneer Disaster Response (YPDR; see <http://ypdr.org/> [2]), an upstart NGO that struggled to gain and exercise authority in a system of more established organizations and agencies. Each theme draws from various incidents and interactions that occurred over the course of a year and a half period. Thus, although each theme highlights a particular way that authority was practiced and understood within the region, the themes intersect and overlap to demonstrate the complex notion of authority in this disaster relief context.

Findings: A Case Study of Constructing Authority in Disaster Relief Coordination

We present our findings as a case study that demonstrates how authority was practiced and understood by various stakeholders working in humanitarian relief. This case poses an interesting example of the complexity of authority because a variety of organizations are working towards a similar goal in a non-hierarchical system that requires individual organizations and collectivities of organizational actors to construct and maintain (not simply “have”) authority in order to legitimate their work and achieve their goals. Thus, what follows are three interconnected themes that emerged from the data and are reconstructed here to explain how authority can be practiced and understood in varying—and sometimes contradicting—ways within a disaster relief context. First, authority is traced in relation to a single organization to demonstrate how their constructions change over time and by circumstance. Next, we

discuss “shelter cluster meetings” as authoritative and how authority is practiced and understood in contradictory ways. Then, we discuss how donors are constructed as authoritative while NGO leaders and Local Government Unit (LGU) officials make donors present in decision-making activities. We conclude this section by summarizing and piecing together how each of these themes functioned simultaneously within this isolated geographic region.

Theme I: Shifting (Discursive) Constructions of Authority

Within the local area of Bantayan Island in the Cebu province over 40 different national and international NGOs operated for varying lengths of time in response to Typhoon Yolanda. One of the key challenges was how individual organizations developed the necessary authority, legitimacy, and credibility to act within the region. In the midst of local government, national government, and United Nations constraints, individual organizations must carve out a particular frame within which they are able to work. Unsurprisingly, authority was not marshaled the same ways by each individual organization. Some organizations explained their ability and need to act in relation to donor requirements, others explained their organization’s actions in terms of particular local government charges, while still others explained their authority in light of their organization’s international stature as an aid organization. This demonstrates how authority is not a monolithic concept or attribute that organizations simply “have,” but rather that organizations draw on different discursive resources to mobilize particular notions of authority at different times in order to legitimate their actions within a problem domain.

For example, take the story of Young Pioneer Disaster Response (YPDR), an organization created for the very purpose of responding to the aftermath of Yolanda. Two American friends had finished working and vacationing in Asia as Yolanda struck the shores of the Philippines. The pair decided they wanted to invite a few volunteers and raise funds to travel to the Philippines and help rebuild a few schools in the Cebu region. Across the 68 interviews and field notes conducted within this region, participants routinely discussed YPDR in both positive and negative ways—they had a notable presence in the Cebu relief efforts. YPDR arrived on Bantayan Island shortly after Yolanda struck and following the construction of several school classrooms, partnered with an aid organization called Polish Humanitarian Action to utilize their supplies and funding to begin shelter construction. It is here that we pick up the story of YPDR to demonstrate how their practice and understanding of authority shifted and evolved over time within the region.

In both meetings and interviews the YPDR founders often talked about what they perceived as the benefits and constraints of being a new and unknown entity at the start of the disaster relief process. Instead of functioning from a broad plan that is put in place prior to arriving on site, the founders said they decided to get involved as quickly as possible with whomever was willing to work with them. However, one of the founders claimed that it was hard for big organizations to work together unless the leaders of the organization agreed to terms in advance:

If UNICEF and Oxfam meet on the island to get the project together, it’s very difficult. We didn’t have the same constraints but it was still very hard for us to get projects. We met with people who would have loved for us to get more things to do but there are so many barriers and challenges in doing that.

YPDR representatives said that initially this issue was quite frustrating for them because they were not seen as a legitimate aid organization. Also note the multiple uses of first-person plural pronouns employed by this YPDR member (we, us), thereby constructing them as a legitimate actor and distinguishing them from other organizations. In the months following their initial attempts to work with existing organizations, YPDR claimed to forge their own path and appeared to take pride in their minimalist approach to aid

work (even to the dismay of other more established workers in the area). As the founders explained, at the start they were committed to sleeping in tents near the work site to ensure that they were not (in their minds) wasting money and resources on expensive hotel rooms. This type of pride encouraged YPDR to function in particular ways as they began their housing construction processes. Moreover, the YPDR founders described shelter cluster meetings and other large-scale coordination efforts as a waste of time. In phase one of their shelter construction, other organizations and local government officials talked about the poor quality of buildings that were being produced by YPDR and that were contrary to shelter cluster standards. The founders claimed this was intentional as this was only phase one and they were providing temporary shelter to be improved upon later.

As YPDR's relief projects grew in scope, tensions between them, other NGOs, and LGUs began to rise as well. Bantayan Island is split into three different municipalities with different mayors and LGU services. It is important to note here that Bantayan Island is not much bigger than 40 square miles. Between the different mayors and local barangay captains (lowest elected officials), some approved of YPDR's methods, while others refused to work with them. Most specifically, YPDR was eventually not included in one LGU's committee meetings due to perceived insubordination. The following excerpt from an interview with the two founders clarifies this point from their perspective:

YPDR 1: We were told the problem with YPDR is that we do not know how to submit to authority as a nongovernmental organization. . .that we are not submitting to the government.

YPDR 2: Although they forget we are servants of the people not the masters.

YPDR 1: Yeah not the other way around.

YPDR 2: We are having a really good relationship with the people.

Notice how they draw upon notions of “the people” and create opposition towards “the government” as ways to position themselves as champions of affected populations. They also construct a notion of authority that, somewhat ironically, is based on their insubordination to established forms of authority. That is, they frame their legitimacy in terms of their lack of cooperation with the government, which may bolster their credibility with the affected populations they are working with. As they make sense of this situation they are actively constructing a sense of authority based on service and relationships, not domination (mastering). Throughout the early interviews, the YPDR founders regularly expressed their indifference to how they were being perceived by government officials or other organizations. They justified their continual actions—even if these actions diverged from formal coordination structures such as the shelter cluster—by discussing the ways that community members benefit from their services and efforts. We interpret this as challenging conventional notions of authority as a form of legitimacy granted by government officials, to an alternative (even ironic) and more situational form of authority that is perceived by the YPDR founders as more beneficial or valuable within this particular context. Despite lacking credibility among established relief organizations, YPDR found ways to appropriate other forms of legitimacy to justify their work (if only to themselves). Essentially they began to authorize their own work through the ways in which they made sense of various situations, even claiming that their lack of recognition among established NGOs actually enhanced their credibility among local officials and communities.

YPDR was praised by officials in some LGUs while simultaneously being outcast by others. A project manager from the national Habitat for Humanity NGO explained that YPDR was not officially recognized by LGUs in the Santa Fe municipality. However, the mayor of this municipality regularly expressed confidence in YPDR's work throughout the region—they were simultaneously authorized and de-

authorized to work in this area, so they had to carefully navigate this domain to accomplish their projects. And this is a key challenge for relief work overall—constructing a form of legitimacy that provides authorization to take action within a given problem domain.

Political disputes forced YPDR to conduct limited projects in the Santa Fe municipality, but the YPDR founders claimed that their relationships with key business people, the mayors, and others in the area allowed them to continue to construct houses across the Bantayan municipality. These relationships were often times conducted through private exchanges. In one such interaction we witnessed, the local mayor came to the YPDR director and said, “Don’t listen to the people who want to keep us apart. Come by my office later and let’s talk.” The same mayor described his appreciation of YPDR’s involvement due to their working with “the heart” and pushing through challenges. The confidence shown by this mayor authorized YPDR’s continued work in the region. At this time, the YPDR founders drew upon the mayor’s confidence in their work as evidence of their authority as a legitimate actor in the region. Although not every party involved saw them as authoritative, YPDR could invoke the statements of the mayor to justify their actions.

As YPDR progressed to their second phase of construction, their building design had entirely changed to meet shelter cluster standards. In a surprising turn, YPDR had actually taken leadership of the shelter cluster meetings by this point to coordinate with other NGOs. In light of this the YPDR founder explained:

It’s interesting because while we were building this all up we had enemies, you know, people were going after us. But now that we’ve kind of succeeded in that mission, we’ve gotten into that level wherein people, you know, we’ve got their attention. Now everyone wants to be friends. It’s really funny . . . And now with our new supporters out in Manila, we’re talking to the biggest people in the Philippines. . . We’re having meetings with the biggest corporations, we got sponsored by Globe [Globe Telecom; see <http://www.globe.com.ph/>] as one of their disaster response partners; things are now exciting.

The change in how the founders made sense of their stature and authority as an organization is important to note here. As the organization became more established within this disaster relief context, they now explained their organization as legitimate in terms of their relationships with government officials, the shelter cluster, and other organizations—the very sources of authority they criticized in order to construct their authority on the basis of being an outsider. This further illustrates the relational nature of authority, something that is accomplished over time in practice with other key stakeholders—and sometimes quite ironically—not an objective feature of hierarchical or bureaucratic positioning.

This example and brief tracing of YPDR’s explanations of how they understood their ability to act demonstrates a few key ideas about authority within this context. YPDR drew on different discursive resources (e.g., their reputation as a rogue startup NGO, the symbolism of their work practices, their connection with “the people,” and their antagonism towards the government and other NGOs) to explain and justify their ability to act within the region. Initially, they expressed their authority in terms of approval from beneficiaries of their services. What government officials and other NGOs thought of them did not matter (i.e., their de-authorization of YPDR) as long as the local people appreciated their work. Next, as they made changes to their practices and construction designs, they expressed their ability to act authoritatively in terms of government officials that supported their work. Finally, as they became well known within this area they explained their authority based upon their expertise and ability to work with others in “friendly” ways. The key thing to note here is how a single organization practiced and understood authority in different ways at different times with different people depending on their circumstances; authority was not simply an attribute they “had” and could impose indiscriminately, it was constructed communicatively.

Theme 2: Cluster Meetings, Coordination, and Authority

At the same time YPDR was working to develop an authoritative frame best situated to their organization and the context surrounding them, the shelter cluster for the Cebu region was in continual operation to serve as a coordination base for NGOs working in the area. As one might expect, the grand hope of a shelter cluster as a place for separate organizations and agencies to learn from one another, partner, and receive directions from a shelter coordinator was not always realized in practice. Instead, observations of cluster meetings and discussions with participants demonstrates the ways that authority was jostled for within the region. More specifically, participants constructed new meanings of the shelter cluster that were then employed to authorize their activities.

One of the intended purposes of the shelter cluster for Cebu was to ensure that organizations could avoid duplicating aid efforts, such as building multiple houses for a single beneficiary. The shelter cluster coordinator explained that duplication was a surprisingly common problem in disaster relief. Additionally, the shelter cluster in Cebu worked to provide standardized ways of constructing shelters. However, considering the volatility of NGOs working in the area, working as a member of a shelter cluster is not required to provide aid in a region. This was illustrated in our conversation with a leader of the Peace Project NGO (<http://www.thepeaceproject.com/>). After asking about how the Peace Project was coordinating with the shelter cluster to work in conjunction with other NGOs, the leader explained that, “we haven’t had any contact with them [the shelter cluster].” On paper then, the shelter cluster was providing standards for NGOs to follow for both quality assurance in construction and the avoidance of project duplication. Yet as we observed in practice, several NGOs actually had limited interactions with the shelter cluster. This fact was not lost on the shelter coordinator who commented on the shifting purpose of the shelter cluster by noting that, “other things happen. . . like basically it is a kind of living organism, the cluster not being just the shelter coordination team but you know like the collection of agencies working on shelter and the strength of each agency can vary a lot.” The official purpose and structure of the shelter cluster was not authoritative in practice, but as will be seen below, the shelter cluster became authoritative in a variety of ways as organizations drew upon the shelter cluster to authorize their actions within this problem domain.

The shelter cluster in the Cebu region was not directly tied to the formal leadership of the cluster, but considered as a conglomerate of organizations and agencies. As a local leader of Red Cross explained, the shelter cluster meetings were at sometimes quarterly, monthly, or weekly intervals and were run by the coordinators (shelter cluster staff) for a period of time, in addition to YPDR and Islamic World Relief (IRW) taking periods of leadership as well. The leadership of the shelter cluster was not the important point as many organizational leaders discussed their actions in light of shelter cluster decisions. Leaders of IRW discussed the changes they made to structure design between different stages of building—or building in different sites—as being completed in line with cluster decisions and standards. IRW functioned as a leader of the shelter cluster for a period of time, but discussed their changes in terms of the cluster. The practice of explaining changes in strategy or design as dependent on the cluster was discussed by a variety of participants, but a leader of Habitat for Humanity made this point clearly:

The shelter cluster has brought in other standards, standards for excellence for building. Especially now with the “build back better” concept, they’re required to ensure, to make sure the new constructions that we have will be resilient to not just the floods and strong winds but also earthquakes.

Although a variety of organizations were responsible for crafting these standards, NGO leaders described the standards and their submission to these standards as belonging to the cluster. In fact, we observed that many NGOs chose to submit to the cluster standards for shelter construction, yet did not follow the

established Philippine standards. The shelter cluster could then be understood as authoritative as organizations submitted to building standards agreed upon within cluster meetings—a textual abstraction that enshrined cluster authority and thus authorized its legitimacy.

In addition to the shelter cluster being used to authorize decisions, as different organizations constructed shelters other cluster members would periodically check the building structures that were completed and offer suggestions for what was to be changed. One of the starkest examples of this involved the local Red Cross. After building their first set of houses on Bantayan Island, several cluster members visited the construction sites and offered recommendations for changes in the future. An excerpt of our conversation with the local Red Cross leader is reproduced below:

Interviewer: When did that visit by the shelter cluster happen?

Red Cross: I think that was after August, mid-year of last year. A good number of shelter cluster members came here to observe the site and offered their own recommendations.

Interviewer: So what were their recommendations? You said that there were others like the foundation that took time to approve but were applied, were there others?

Red Cross: Yes, the positioning of the windows. Because initially the windows opened from the inside and they said it would be better if they opened from the outside to save space.

Visits and recommendations from other cluster member organizations were not uncommon, but practices of authority that cluster members engage in were frequently contested by organizational constraints.

Interviewer: So what were the recommendations that you weren't able to include, you mentioned the bracing?

Red Cross: Yes, we will include that one eventually. Because our original wall bracing is like this and the window is in between. They recommended it not to reach the window side so that in case the beneficiary decides to add an extension of the house, they would just have to open it and take the panel from the window. The original positioning of the wall bracing will hinder this. I don't have my drawing though. I have here but this one's the original design. . . .

Interviewer: So those changes are still pending then?

Red Cross: Yes, we're waiting for the approval but we already have with us the technicalities on how to construct the changes.

Interviewer: So how do you submit an approval; will the approval from the local staff here in Bantayan suffice or you need to hand it over to Manila?

Red Cross: We have a technical engineer and a foreign delegate on the ground here, they're the ones verifying and testifying for the changes. But Manila has the final say on decision making.

Members of the shelter cluster were then able to provide recommendations from others and receive recommendations. However, this is not to say that any changes had to be made. As seen in this excerpt, the Red Cross claimed they could not make any changes until they had approved the changes with the

national Red Cross headquarters in Manila. Throughout our data several small NGOs discussed the challenges that they saw with large NGOs and the regular need for approval from national or international headquarters in order to act. As a founder of YPDR claimed, the cluster meetings often felt like all talk and no action. People could say that they would take care of one area, but then not act on it in part due to their institutional constraints. This highlights the central problem with authority in this collaborative disaster relief context. Different types of authority are contradictory and oppose one another; organizations might agree upon a plan of action, but this agreement that is seen as authoritative within the shelter cluster system was then trumped by the individual interests of organizations that did not accept it as authoritative. Authority is thus temporal and based in practices that can be continually altered.

Additionally, the shelter cluster meetings were key sites for authority construction among the organizations and agencies involved. The shelter cluster meeting on July 31, 2014, provides a good example of this. Since there had not been a shelter cluster meeting for several months, this was an important gathering for the rebuilding efforts in Cebu province. This was an opportunity for shelter organizations and agencies to enhance their coordination, as well as update everyone on their projects and demonstrate their competency. The meeting took place at the Philippine Red Cross field office in the municipality of Bantayan. Attendees included Philippine Red Cross (PRC), Caritas Switzerland, Habitat for Humanity, Islamic Relief Worldwide (IRW), Young Pioneer Disaster Relief (YPDR), and Justice, Peace & Integrity of Creation-Integrated Development Center (JPIC). The majority of the meeting was devoted to each organization giving a 10-15-minute presentation on their work in Cebu. And as the newest member of the cluster, YPDR used this as an opportunity to assert their authority in face of skepticism about their work and credentials. Consider this excerpt from our fieldnotes:

The foreign-based organizations had a noticeable presence in the meeting room, both in terms of attendance, as well as their vocality during the previous presentations. During their introduction, their representative pushed their qualifications, emphasizing their numerous partnerships with organizations, such as the International Labor Organization (ILO), and local governments, such as the Municipality of Bantayan. Further, they made a point to note that they were registered with the Philippine Securities and Exchange Commission (SEC) and were accredited by the Province of Cebu and Municipality of Bantayan. No other organization presenting during the meeting noted these details. Further, YPDR pointed to their emerging partnership with the University of San Carlos and close relationship with their skilled labor.

After YDPR wrapped up their presentation, they attempted to intervene at multiple points in other presentations. Every other organization in attendance held questions until the end, but YDPR's three staff frequently interjected. Following the first presentation by the Philippine Red Cross (PRC), a discussion started on best practices and recommendations. This quickly turned into a three-way conversation between PRC, YPDR, and the Shelter Cluster. The Shelter Cluster staff was the first to provide a comment, recommending the treatment of coconut lumber posts with anti-termite protection. YDPR was quick to counter this, stating that "local people know the lifespan of coconut lumber" and that "organizations should be selecting the hardest stuff." In multiple subsequent comments, YDPR continued to passively suggest supplementary guidance that trailed recommendations provided by the Shelter Cluster and PRC. At other points later in the meeting, they offered up aspects of their approach as definitive answers to challenges encountered by other organizations. For example, they offered to certify skilled labor for Malteser[3] and provide qualified labor for Habitat for Humanity, which seemed to be an unwelcome intrusion into the work of other organizations.

Notice several things here. First, YPDR is actively constructing their authority by drawing upon discursive resources that could bolster their credibility among other cluster members. Evidence of these partnerships and approvals as a mechanism of legitimacy could also be found in textual sources released after the meeting. The partnership with the ILO and SEC registration were noted as two of the four leading bullets for YPDR's presentation in the meeting minutes, thus textualizing these aspects of their authority and providing a resource to draw upon in future instances of authority construction. YPDR also foregrounded what they perceived as a key source of their expertise and authority—their connection to “the people” and their willingness to incorporate local knowledge (e.g. coconut lumber lifespan) into their planning and decision making.

Finally, we observed how people simultaneously invoked and thwarted the authority of the shelter cluster to authorize their own work. Towards the beginning of this meeting the YPDR representative gave an update on one of their projects: “We’ve built 850 core shelters, each 7.5 m² in size.” This was a clear violation of the shelter cluster’s minimum size standards. Yet we observed that they almost seemed to take pride in this violation, as if it indicated the superiority of their shelter designs, thus bolstering their authority as a more competent shelter provider. However, a bit later in the meeting the same YPDR representative noticeably gasped and laughed when another organization, JPIC, reported the cost information of their shelter projects: “Our costs come in at 135K (Philippine pesos) plus labor.” This too was higher than the shelter cluster standards and the YPRD representative was quick to point this out, while also indicating that their costs were within the standards. Here we have a situation where YPDR simultaneously thwarted the shelter cluster standards on size but also drew upon the standards for costs. YPDR took a similar approach when discussing the construction dimensions of their shelters. In their presentation they explained how they built (850) 7.5 square meter structures and (22) 18 square meter structures. They pointed to the speed of construction and factory-like production that was established. While the first of these structures were in direct conflict with the Shelter Cluster recommendation of 18 square meters per household, they downplayed this detail by discussing the guidance provided by the Shelter Cluster staff in improving their designs. Notably, the Shelter Cluster had previously only verbally stated the explicit standard of 18 square meters per household, however this was published in final print by the Shelter Cluster on August 18th, approximately two weeks after this meeting in their *Recovery Shelter Guidelines*. This standard emerged from previous guidelines outlined in the *Sphere Standards*, which stated that shelter sizes should provide 3.5 square meters per individual. Despite the lower floor areas being provided, YPDR stated that they had the lowest cost shelter, and as a result, were delivering more assistance to families in need. This demonstrates that the shelter cluster and its standards were not authoritative per se, but rather discursive resources drawn upon as organizations and representatives constructed their own authority among other stakeholders. It also shows how the authority of the shelter cluster itself evolved as it incorporated revised standards that emerged from work in the field, and as people referenced these standards to explain and justify their actions.

Overall, what this second theme demonstrates is the varied notions of authority that different NGOs constructed in order to act in connection with one another, and the varied ways they drew upon certain resources to construct this authority. As authority was practiced and made sense of in relation to the shelter cluster, the fragile and malleable nature of authority emerged as an important finding. More specifically, these examples show the disconnected or loosely coupled reality between the written purpose of the shelter cluster and how it was utilized on the ground. As some organizations are not involved or involved at a limited level, shelter cluster authority is contingent upon relationships between and within various organizations. However, organizations were able to act and therefore practice authority as they made changes and constructed shelters based upon shelter cluster decisions or standards. Organizational members that were engaged in cluster decision-making processes used the shelter cluster as a discursive resource to authorize and legitimate their actions. These decisions and standards were distanced from initial authors allowing individual organizations to act authoritatively and independently through the

guidance of the shelter cluster. Additionally, this theme demonstrates that the shelter cluster gained authority with each of the involved organizations through their regular interactions both within meetings and through individual discussions. The authority of the shelter cluster was not inherent in the system or UN affiliation, but rather was constructed (or resisted) among cluster members. Thus, the shelter cluster was only granted authority as members of the cluster made sense of their ability to act in relation to the shelter cluster itself. Lastly, the Red Cross excerpt showed how shelter cluster authority was thwarted as individual organizations were subject to various conflicting authoritative practices and processes. Next, our final theme shows how donors that provided funding for NGO projects were made present as authoritative figures within this problem domain.

Theme 3: Donors, Authority, and Presentification

Beyond showing how authority changes over time depending upon the discursive resources available to organizations, and the ability of organizations to draw upon the shelter cluster in practices of authority, the ways in which donors were authorized or deauthorized within this context adds to the overall case study. Disaster relief at the scale of Typhoon Yolanda requires enormous amounts of money to be donated by private citizens, governments, and corporations in order for NGOs to supply the services that they do. As thousands of shelters were constructed on Bantayan Island, donor support was regularly on the minds of NGO leaders and government officials. What is interesting about this part of the case study is that through observations and interviews it was evident that even though donors are rarely physically present at the physical sites of relief efforts, they were still “made present” as authoritative figures when NGO leaders explained their actions and ability to act.

Most large-scale donors for NGOs working in disaster relief require quarterly or monthly reports that demonstrate the work that has been accomplished with their funding, but others are made more present within daily operations of NGOs. For instance, the local NGO Habitat for Humanity discussed ways they had to change their schedules to accommodate visiting donors’ desires to see current projects or work alongside local construction workers. The need to stop construction projects or shift plans demonstrates that the authority donors achieve with NGOs is bound up in the need for their funding. Donors also exhibited authority within the region through strict restrictions about what their money could be used for. In conversations with a variety of NGO leaders, it was apparent that organizations were constrained by the desires of the donors. Most donors (corporate or otherwise) even required NGOs to utilize their logos in the building of new shelters. Additionally, one NGO member explained:

Donors, for some crazy reason, don’t fund entire solutions. So for example you say, this family lost everything, they don’t have a house also they don’t have a bathroom or a kitchen and maybe we should look into some livelihood things. And donors would say, “I want to sponsor house, or I want to do WASH activities [water, hygiene, and sanitation], or I want to sponsor children, etc.”

This type of statement was common in disaster relief on Bantayan Island. Individual NGO projects were regularly influenced by the desires of donors. Donor authority was made present (presentified) in these situations as organizations explained their activities in terms of donor requirements and thereby exercised authority on behalf of the donors.

In addition to requirements made by donors about how they would ensure that their money was going to a good cause, organizations often explained their own decisions and ability to act authoritatively due to what donors enabled or constrained. Some organizations might work primarily on constructing shelters because that is what their primary donors have funded them to do. For instance, members of the Peace Project explained that they were building a certain number of houses and a community center in a particular area in part because that was expected and planned by their donors. Additionally, a leader of

Malteser International explained that in light of many of their houses being built on government property they needed to:

Ensure that the donor's money is being used for something that is really good stewardship. . .So this is why we haven't selected any from this one [community] because the issue is the donor wanted to emphasize that it helps us advocating that we don't want them [beneficiaries] to stay in the danger zone forever.

Here, the very choice of who would be given houses was made by the donor and executed by the NGO. In conversation the NGO brought up the donor and made the donor authoritative by presenting and consenting to their decisions. This type of discussion was common amongst NGO leaders beyond Malteser International.

Considering the necessity of donors and funding to provide aid in disaster relief situations, people understandably would spend a fair amount of time concerning themselves with the wishes of donors. One of the key concerns expressed by organizational and governmental figures alike is ensuring that donor funds are used responsibly. Yet they were also cautious about how they responded to perceived misuse of funds. This point was made clear by the mayor of Bantayan municipality who explained:

I think someone has to check them [NGOs] because for me I know what they are doing but I don't want to talk about it because for me it is better that they are here, whatever they are doing but I pity their donors because it is a big misuse of funds, of donor's money. So, sooner or later it has to be stopped because it is not helping anybody, it is not helping the donor, the purpose, it is not helping my town. And using my town as something as if they are working here which they are not and you will know when you are here you will know who they are but I do not want to tell you that.

The mayor was discussing several organizations that seemed to be taking pictures of projects they were not working on in order to raise more funds. The tension that the mayor experienced about whether to stop NGOs or allow them to keep working was common and experienced by individual NGOs as well. In other words, was it better to submit to the authority of the donors or do the work that seems best fitted to the current needs of local communities? By articulating this struggle the mayor reauthorized the legitimacy of donors in this space, making them present as a matter of concern for the way in which funds were used. Also note the mayor's lack of authority in this situation, despite his official position as a government official in this municipality—he does not approve of this organization's actions, but he does not want to say anything for fear of them leaving the area. This situation further complicates our understanding of authority if we consider the conflicting ways in which donors are drawn upon. These organizations were submitting to the authority of their donors, taking pictures of work they knew donors would be pleased to see, and yet simultaneously thwarting donor authority by doing work donors would likely disapprove of. Consequently, authority is not an objective feature of donor organizations, but rather something people employ in order to legitimate their actions, while also defying this same authority as a way to establish one's own capacity as a competent actor. The key issue here is how donors are made present (or absent) in order to justify actions and legitimate various relief organizations.

A final way in which donors were made present in this relief work involved the development of the *Recovery Guidelines* created by the shelter cluster. This document presents a “range of shelter options outlining their core principles and parameters” that were supposed to be considered in the recovery phase. The relevant issue here is that many of these guidelines were developed with donors in mind so they could better understand the rebuilding work happening in the Philippines. As one shelter cluster member explained:

I think people are really confused and they can't really see the difference between core and progressive [structures] and they don't really, they aren't so mindful of it either because they have already done their proposal, the donors have already funded X temporary core shelters and that is what they are doing so but now there is a new reporting system and it reflects the recovery guidelines.

The issue here was that donors tend to only fund certain kinds of work, so guidelines were adapted to both clarify the nature of this work to various donors, and to ensure that shelter work adhered to the preferences of donors. In this way donors were "lurking" in the background of these guidelines as an authoritative presence that shaped how the rebuilding work was implemented on the ground, and subsequently authorizing NGOs to build using the shelter archetypes outlined in the guidelines.

The examples of donors as authoritative within disaster relief work demonstrates the ways that donors are made present and able to act authoritatively. The mayor's concern demonstrated that some organizations were perceived as more or less authoritative depending on how they appear to spend money donated to them. This is consistent with YPDR's thinking mentioned above about their own authority and desirability by the local people considering their frugal and minimalist approach to disaster work. Furthermore, this example demonstrates that practices of authority can be both achieved by organizations and through organizations by other actors such as donors. As NGO leaders make donors present in disaster relief situations by justifying their actions in the name of their donors, donors act authoritatively on the NGO and through the NGO to act within the region. This finding further complicates the intersecting and overlapping forms of authority demonstrated throughout the previous two findings.

To summarize, our analysis demonstrates that authority is indeed an important matter of concern for disaster relief coordination, as the authority to act individually and collaboratively is always a negotiated and contested. Individual organizations draw on available discursive resources as they make sense of their authority and actions. However, the ways in which an individual organization practices authority is bound up in a web of other authoritative practices such as the shelter cluster, LGU involvement, or donor requirements. With this in mind, it is evident that organizations do not *have* authority within this problem domain, but instead *construct* authority to accomplish a variety of individual and collective goals. At times an organization might draw on discursive resources to thwart the authority of local government officials or the shelter cluster in order to act in accordance with the authority of donors; while at other times an organization might draw upon the same shelter cluster as a discursive resource to describe and define their ability to act in particular ways. Thus, these findings suggest that authority is in a constant state of negotiation as various organizations coordinate with each other to provide effective disaster relief.

Discussion

The purpose of our study was to explore the social construction of authority in disaster relief coordination. We wanted to learn more about how stakeholders drew upon various discursive resources in order to establish or preserve their authority to act within a certain problem domain, and we wanted to know how people made sense of authority in the complex environment of humanitarian aid work. We assembled literature on authority, coordination, communication, practice theory, and sensemaking to develop a theoretical framework that would inform our empirical investigation. We examined the case of humanitarian coordination in the Cebu province of the Philippines following Typhoon Yolanda. Examples from this case study help to illustrate ideas from our theoretical framework, while also highlighting new problems and questions to motivate future research. Consequently, our research has important

implications—both practical and scholarly—for how we understand authority and coordination in the context of disaster relief.

First, our study into construction of authority in disaster relief provides several insights which are useful to improve future response efforts. Newly established and small non-governmental organizations were faced with significant barriers that stemmed from the humanitarian clusters. For these young and small organizations, the process of authorizing meant that a large number of resources had to be allocated and employed in order to gain legitimacy. It is imperative that these organizations are included in ongoing debates to reform the humanitarian cluster system as coordination mechanisms continue to evolve. Reducing the demand on organizations through information and communication technologies (ICTs), cross-sectoral planning, and alternative modalities could allow for more efficient use of staffing time and resources.

Additionally, our findings show that authority construction is fundamentally relational. High staff turnover rates and cluster documentation are likely contributors to more rapid distancing of authority. The short term presence of staff has the potential to reinforce flawed strategies as authoritative and revisiting standards of practice regularly is critical in rapidly evolving responses. Organizations should ensure that sufficient resources are available for staff transitions and consider earlier integration of local staff into programs to ease authoritative changes. Lastly, our findings show that there is a need to revisit donor funding mechanisms. Our work demonstrates that single sector programming intended to provide accountability to donors does so at the expense of accountability of beneficiaries. The nature of donor–aid organization relations have established norms that result in a divide between perceived and actual needs of affected populations. More flexible funding could reposition authority in responses and allow for local populations to have more control over decision-making and distribution of resources.

Furthermore, our study complements and extends previous research in several important ways. Existing communication research on risk, crisis, emergencies, and disasters focuses on issues related to media coverage (e.g., Houston, Pfefferbaum, & Rosenholtz, 2012), health campaigns and messaging (e.g., Adame & Miller, 2015), information sharing and reporting (e.g., Liu, Fraustino, & Jin, 2015; Sommerfeldt, 2015), social media (e.g., Gurman & Ellenberger, 2015), networks, interorganizational relationships, and social capital (e.g., Doerfel, Chewing, & Lai, 2013; Doerfel, Lai, & Chewing, 2010), or political rhetoric (e.g., Griffin-Padgett & Allison, 2010). Yet previous research has devoted less attention to communication among people and organizations as they respond to disasters and make sense of these emergent situations. Our work helps push the literature in this direction, showing both the utility of communicative explanations and the distinct contributions communication scholarship can make to our understanding of important social phenomena.

Additionally, our study expands the communication literature on authority and agency to the important contexts of humanitarian collaboration and coordination, a distinct setting that challenges common understandings of organizing and authorization. Most importantly, the collaborative work of disaster coordination lacks a focal organization from which claims to authority are made and justified. To date the communication scholarship on authority presumes a source of authority that is generally recognized among organizational members, even as they work out this authority in practice. For example, Cooren, Brummans, and Charrieras' (2008) study of Médecins Sans Frontières' (Doctors Without Borders) work in the Democratic Republic of the Congo details how different people attempt to establish their authority and exercise power in order to make the organization present in a variety of situations. Although they vie to represent and speak for the organization in different ways, there is no dispute that Médecins Sans Frontières is the reference point for these negotiations. Often this is not the case for more collaborative humanitarian efforts, where people need to co-construct sources of authority that are collectively recognized because appeals to central organizations are less effective. Collaboration does not happen “in”

an organization, and often there is not a default organizational authority to mediate among competing interests and interpretation. Therefore, an important next step for communication research on authority and agency is extending to the context of interorganizational collaboration and coordination, a contribution that our study provides.

Finally, our research helps move the scholarly conversation on these issues away from static notions of authority and communication towards more complex, communicative understandings that better reflect the actual work of disaster relief coordination. In theory, disaster relief is a highly coordinated effort orchestrated by a central agency that has the authority to manage activities and align multiple interests. However, in practice coordination is messy and authority is problematic, and it is this notion of “in practice” that is a key concern in this study—both in terms of local interactions that constitute these practices and the retrospective sensemaking that provides meaning. Our research further demonstrates how authority is a process, a property of relationships (Taylor & Van Every, 2014), not a commodity or stable attribute. Authority is both emergent and contingent, and it shifts in the very communication intended to define and exercise it. The work of disaster relief coordination calls for a shift in understanding authority from that of principle to that of construction—this study represents an important step in that direction.

References

- Adame, B. J., & Miller, C. H. (2015). Vested interest, disaster preparedness, and strategic campaign message design. *Health Communication, 30*(3), 271-281. doi: [10.1080/10410236.2013.842527](https://doi.org/10.1080/10410236.2013.842527)
- Austin, J. E. (2000). Strategic collaboration between nonprofits and business. *Nonprofit and Voluntary Sector Quarterly, 29*(1), 69-97. doi: [10.1177/089976400773746346](https://doi.org/10.1177/089976400773746346)
- Austin, J. E., & Seitanidi, M. M. (2012). Collaborative value creation: A review of partnering between nonprofits and businesses. Part I: Value creation spectrum and collaboration stages. *Nonprofit and Voluntary Sector Quarterly, 41*(5). doi: [10.1177/0899764012450777](https://doi.org/10.1177/0899764012450777)
- Balcik, B., Beamon, B. M., Krejci, C. C., Muramatsu, K. M., and Ramirez, M. (2010). Coordination in humanitarian relief chains: Practices, challenges and opportunities. *International Journal of Production Economics, 126*(1), 22–34. doi: [10.1016/j.ijpe.2009.09.008](https://doi.org/10.1016/j.ijpe.2009.09.008)
- Barnard, C. I. (1938). *The functions of the executive*. Cambridge, MA: Harvard University Press.
- Bartesaghi, M. (2009). How the therapist does authority: Six strategies for substituting client accounts in the session. *Communication & Medicine, 6*(1), 15-25.
- Bartesaghi, M. (2014). Coordination: Examining weather as a “matter of concern.” *Communication Studies, 65*(5), 535-557. doi: [10.1080/10510974.2014.957337](https://doi.org/10.1080/10510974.2014.957337)
- Bechky, B. A. (2003). Sharing meaning across occupational communities: The transformation of understanding on a production floor. *Organization Science, 14*(3), 312-330. doi: [10.1287/orsc.14.3.312.15162](https://doi.org/10.1287/orsc.14.3.312.15162)
- Benini, J. B. (1998). Getting organized pays off for disaster response. *Journal of Contingencies and Crisis Management, 6*(1), 61-63. doi: [10.1111/1468-5973.00068](https://doi.org/10.1111/1468-5973.00068)

- Benoit-Barné, C., & Cooren, F. (2009). The accomplishment of authority through presentification: How authority is distributed among and negotiated by organizational members. **Management Communication Quarterly**, *23*(1), 5-31. doi: [10.1177/0893318909335414](https://doi.org/10.1177/0893318909335414)
- Blundell, A. (2007). **Communicating in the field: The role of boundary objects in a collaborative stakeholder initiative**. Unpublished doctoral dissertation. Calgary, Alberta: University of Calgary.
- Browning, L. D., Beyer, J. M., & Shetler, J. C. (1995). Building cooperation in a competitive industry: SEMATECH and the semiconductor industry. **Academy of Management Journal**, *38*(1), 113-151. Stable URL: <http://www.jstor.org/stable/256730>
- Brummans, B. H., Hwang, J. M., & Cheong, P. H. (2013). Mindful authoring through invocation leaders' constitution of a spiritual organization. **Management Communication Quarterly**, *27*(3), 346-372. doi: [10.1177/0893318913479176](https://doi.org/10.1177/0893318913479176)
- Brummans, B. H. J. M., Cooren, F., Robichaud, D., & Taylor, J. R. (2014). Approaches to the communicative constitution of organizations. In L. L. Putnam & D. K. Mumby (Eds.), **The SAGE Handbook of Organizational Communication: Advances in Theory, Research, and Methods (3rd Ed.)** (pp. 173-194). Thousand Oaks, CA: Sage.
- Clarke, L. (1999). **Mission Impossible: Using Fantasy Documents to Tame Disaster**. Chicago, IL: University of Chicago Press.
- Clarke, L., Chess, C., Holmes, R., & O'Neill, K. M. (2006). Speaking with one voice: Risk communication lessons from the US anthrax attacks. **Journal of Contingencies and Crisis Management**, *14*(3), 160-169. doi: [10.1111/j.1468-5973.2006.00491.x](https://doi.org/10.1111/j.1468-5973.2006.00491.x)
- Cooren, F. (2006). The organizational world as a plenum of agencies. In J. R. T. Cooren, & E. J. Van Every (Ed.), **Communication as Organizing: Empirical and Theoretical Explorations in the Dynamic of Text and Conversation** (pp. 81-100). Mahwah, NJ: Lawrence Erlbaum.
- Cooren, F. (2010). **Action and Agency in Dialogue: Passion, Incarnation and Ventriloquism**. Amsterdam, The Netherlands: John Benjamins.
- Cooren, F., Brummans, B. H., & Charrieras, D. (2008). The coproduction of organizational presence: A study of Médecins Sans Frontières in action. **Human Relations**, *61*(10), 1339-1370.
- Cooren, F., & Fairhurst, G. T. (2009). Dislocation and stabilization: How to scale up from interactions to organization. In L. L. N. Putnam, A. M. (Ed.), **Building Theories of Organization: The Constitutive Role of Communication** (pp. 117-152). New York, NY: Routledge.
- Craig, R. T., & Tracy, K. (1995). Grounded practical theory: The case of intellectual discussion. **Communication Theory**, *5*(3), 248-272. doi: [10.1111/j.1468-2885.1995.tb00108.x](https://doi.org/10.1111/j.1468-2885.1995.tb00108.x)
- Doerfel, M. L., Chewning, L. V., & Lai, C. H. (2013). The evolution of networks and the resilience of interorganizational relationships after disaster. **Communication Monographs**, *80*(4), 533-559. doi: [10.1080/03637751.2013.828157](https://doi.org/10.1080/03637751.2013.828157)
- Doerfel, M. L., Lai, C. H., & Chewning, L. V. (2010). The evolutionary role of interorganizational communication: Modeling social capital in disaster contexts. **Human Communication Research**, *36*(2), 125-162. doi: [10.1111/j.1468-2958.2010.01371.x](https://doi.org/10.1111/j.1468-2958.2010.01371.x)
- Dougherty, D. (1992). Interpretive barriers to successful product innovation in large firms. **Organization Science**, *3*(2), 179-202. Stable URL: <http://www.jstor.org/stable/2635258>

- Drabek, T. E. (2007). Community processes: Coordination. In H. Rodriguez, E. Quarantelli, & R. Dynes (Eds.), **Handbook of Disaster Research** (pp. 217-233). New York, NY: Springer.
- Faraj, S., & Xiao, Y. (2006). Coordination in fast-response organizations. **Management Science**, *52*(8), 1155-1169. doi: [10.1287/mnsc.1060.0526](https://doi.org/10.1287/mnsc.1060.0526)
- Fayol, H. (1916/1949). **General and Industrial Management**. New York, NY: Pitman.
- Feldman, M. S., & Orlikowski, W. J. (2011). Theorizing practice and practicing theory. **Organization Science**, *22*(5), 1240-1253. doi: [10.1287/orsc.1100.0612](https://doi.org/10.1287/orsc.1100.0612)
- Griffin-Padgett, D. R., & Allison, D. (2010). Making a case for restorative rhetoric: Mayor Rudolph Giuliani & Mayor Ray Nagin's response to disaster. **Communication Monographs**, *77*(3), 376-392. doi: [10.1080/03637751.2010.502536](https://doi.org/10.1080/03637751.2010.502536)
- Güney, S. (2006). Making sense of a conflict as the (missing) link between collaborating actors. In F. Cooren, J. R. Taylor, & E. J. Van Every (Eds.), **Communicating as organizing: Empirical and theoretical explorations in the dynamic of text and conversation** (pp. 19-35). New York, NY: Lawrence Erlbaum.
- Gurman, T. A., & Ellenberger, N. (2015). Reaching the global community during disasters: Findings from a content analysis of the organizational use of Twitter after the 2010 Haiti earthquake. **Journal of Health Communication**, *20*(6), 687-96. doi: [10.1080/10810730.2015.1018566](https://doi.org/10.1080/10810730.2015.1018566)
- Hardy, C., Lawrence, T. B., & Grant, D. (2005). Discourse and collaboration: The role of conversations and collective identity. **Academy of Management Review**, *30*(1), 58-77. Stable URL: <http://www.jstor.org/stable/20159095>
- Houston, J. B., Pfefferbaum, B., & Rosenholtz, C. E. (2012). Disaster news framing and frame changing in coverage of major US natural disasters, 2000–2010. **Journalism & Mass Communication Quarterly**, *89*(4), 606-623. doi: [10.1177/1077699012456022](https://doi.org/10.1177/1077699012456022)
- Innes, J. E., & Booher, D. E. (2010). **Planning with complexity: An introduction to collaborative rationality for public policy**. New York, NY: Routledge.
- Jahre, M., and Jensen, L. (2010). Coordination in humanitarian logistics through clusters. **International Journal of Physical Distribution & Logistics Management**, *40*(8/9), 657–674. doi: [10.1108/09600031011079319](https://doi.org/10.1108/09600031011079319)
- Kahn, W. A., & Kram, K. E. (1994). Authority at work: Internal models and their organizational consequences. **Academy of Management Review**, *19*(1), 17-50.
- Kuhn, T. (2008). A communicative theory of the firm: Developing an alternative perspective on intra-organizational power and stakeholder relationships. **Organization Studies**, *29*(8-9), 1197-1224. doi: [10.1177/0170840608094778](https://doi.org/10.1177/0170840608094778)
- Kärreman, D. (2001). The scripted organization: dramaturgy from Burke to Baudrillard. In R. Westwood & S. Linstead (Eds.) **The Language of Organization** (pp. 89-111). Thousand Oaks, CA: Sage.
- Kellogg, K. C., Orlikowski, W. J., & Yates, J. (2006). Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations. **Organization Science**, *17*(1), 22-44. doi: [10.1287/orsc.1050.0157](https://doi.org/10.1287/orsc.1050.0157)
- Koschmann, M. (2013). The communicative constitution of collective identity in interorganizational collaboration. **Management Communication Quarterly**, *27*(1), 61-89. doi: [10.1177/0893318912449314](https://doi.org/10.1177/0893318912449314)
- Koschmann, M. & Burk, N. (2016). Accomplishing authority in collaborative work. **Western Journal of Communication**, *80*(4), 393-413. doi: [10.1080/10570314.2016.1159728](https://doi.org/10.1080/10570314.2016.1159728)

- Lawrence, T. B., Hardy, C., & Phillips, N. (2002). Institutional effects of interorganizational collaboration: The emergence of proto-institutions. **Academy of Management Journal**, *45*(1), 281-290.
- Lewis, L.K. (2006). Collaboration: Review of communication scholarship and a research agenda. In C. Beck (Ed.), **Communication Yearbook 30** (pp. 168-212). Thousand Oaks, CA: Sage.
- Lindenberg, M. and Bryant, C. (2001). **Going Global: Transforming relief and development NGOs**. Bloomfield, CT: Kumerian.
- Majchrzak, A., More, P. H., & Faraj, S. (2012). Transcending knowledge differences in cross-functional teams. **Organization Science**, *23*(4), 951-970. doi: [10.1287/orsc.1110.0677](https://doi.org/10.1287/orsc.1110.0677)
- Liu, B. F., Fraustino, J. D., & Jin, Y. (2015). How disaster information form, source, type, and prior disaster exposure affect public outcomes: Jumping on the social media bandwagon. **Journal of Applied Communication Research**, *43*(1), 44-65. Retrieved from: <https://www.natcom.org/CommCurrentsArticle.aspx?id=5833>
- Nicolini, D. (2009). Zooming in and out: Studying practices by switching theoretical lenses and trailing connections. **Organization Studies**, *30*(12), 1391-1418. doi: [10.1177/0170840609349875](https://doi.org/10.1177/0170840609349875)
- Nicolini, D. (2011). Practice as the site of knowing: Insights from the field of telemedicine. **Organization Science**, *22*(3), 602-620. doi: [10.1287/orsc.1100.0556](https://doi.org/10.1287/orsc.1100.0556)
- Nolte, I. M., Martin, E. C., & Boenigk, S. (2012). Cross-sectoral coordination of disaster relief. **Public Management Review**, *14*(6), 707-730. doi: [10.1080/14719037.2011.642629](https://doi.org/10.1080/14719037.2011.642629)
- Okhuysen, G. A., & Bechky, B. A. (2009). Coordination in organizations: An integrative perspective. **The Academy of Management Annals**, *3*(1), 463-502. doi: [10.1080/19416520903047533](https://doi.org/10.1080/19416520903047533)
- Owen, W. F. (1984). Interpretive themes in relational communication. **Quarterly Journal of Speech**, *70*(3), 274-287. doi: [10.1080/00335638409383697](https://doi.org/10.1080/00335638409383697)
- Rey, F. (2001). The complex nature of actors in humanitarian action and the challenge of coordination. In Humanitarian Studies Unit (Ed.), **Reflections on Humanitarian Action: Principles, Ethics and Contradictions** (pp. 99-119). London, England: TNI/Pluto Press with Humanitarian Studies Unit and ECHO (European Commission Humanitarian Office), Retrieved from <http://www.jstor.org/stable/j.ctt18fs9tr.9>
- Ricoeur, P. (1991). **From Text to Action: Essays in Hermeneutics, II**. Evanston, IL: Northwestern University Press. (Originally published in French under the title **Du Texte à l'action: Essais d'hérméneutique, II**, 1976, Paris: Editions du Seuil.)
- Rosenau, P. V. (2000). **Public-private policy partnerships**. Cambridge, MA, and London, England: MIT Press.
- Schatzki, T. R. (2005). Peripheral vision: The sites of organizations. **Organization Studies**, *26*(3), 465-484. doi: [10.1177/0170840605050876](https://doi.org/10.1177/0170840605050876)
- Simpson, B. (2009). Pragmatism, Mead and the practice turn. **Organization Studies**, *30*(12), 1329-1347. doi: [10.1177/0170840609349861](https://doi.org/10.1177/0170840609349861)
- Smith, D. E. (2005). **Institutional ethnography: A sociology for people**. Oxford, UK: Altamira.
- Sommerfeldt, E. J. (2015). Disasters and information source repertoires: Information seeking and information sufficiency in postearthquake Haiti. **Journal of Applied Communication Research**, *43*(1), 1-22. doi: [10.1080/00909882.2014.982682](https://doi.org/10.1080/00909882.2014.982682)

- Strauss, A. & Corbin, J. (1994). Grounded theory methodology: an overview. In N.K. Denzin & Y.S. Lincoln (eds.), **Handbook of Qualitative Research** (pp. 273-285). London, England, and Thousand Oaks, CA: Sage.
- Taylor, J. R., Cooren, F. A., Giroux, N., & Robichaud, D. (1996). The communicational basis of organization: Between the conversation and the text. **Communication Theory**, *6*(1), 1-39. doi: [10.1111/j.1468-2885.1996.tb00118.x](https://doi.org/10.1111/j.1468-2885.1996.tb00118.x)
- Taylor, J. R., & Robichaud, D. (2004). Finding the organization in the communication: Discourse as action and sensemaking. **Organization**, *11*(3), 395–413. doi: [10.1177/1350508404041999](https://doi.org/10.1177/1350508404041999)
- Taylor, J. R., & Van Every, E. J. (2000). **The emergent organization: Communication as its site and surface**. Mahwah, NJ: Lawrence Erlbaum.
- Taylor, J. R., & Van Every, E. J. (2011). **The situated organization: Case studies in the pragmatics of communication research**. New York, NY: Taylor & Francis.
- Taylor, J. R., & Van Every, E. J. (2014). **When organization fails: Why authority matters**. New York, NY: Routledge.
- Tracy, K. (2007). The discourse of crisis in public meetings: Case study of a school district's multimillion dollar error. **Journal of Applied Communication Research**, *35*(4), 418-441. doi: [10.1080/00909880701617133](https://doi.org/10.1080/00909880701617133)
- Way, A. K., Zwier, R. K., & Tracy, S. J. (2015). Dialogic interviewing and flickers of transformation: An examination and delineation of interactional strategies that promote participant self-reflexivity. **Qualitative Inquiry**, *2*(8), 720-731. doi: [10.1177/1077800414566686](https://doi.org/10.1177/1077800414566686)
- Weber, M. (1922/1968). The nature of charismatic authority and its routinization. In Max Weber: **On charisma and institution building** (pp. 45-65). Chicago, IL: University of Chicago Press.
- Weick, K. E. (1995). **Sensemaking in organizations**. Thousand Oaks, CA: Sage.
- Westwood, R., & Linstead, S. (Eds.). (2001). **The Language of Organization**. Thousand Oaks, CA: Sage.
- Wood, D. J., & Gray, B. (1991). Toward a comprehensive theory of collaboration. **The Journal of Applied Behavioral Science**, *27*(2), 139-162. doi: [10.1177/0021886391272001](https://doi.org/10.1177/0021886391272001)

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[2] All organization names are real, but no individual names are used in order to ensure confidentiality.

[3] Malteser International is the worldwide humanitarian relief agency of the Sovereign Order of Malta (which is a lay religious order of the Catholic Church).