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# Boundaries as Junctures: Collaborative Boundary Work for Building Efficient Resilience

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**ABSTRACT**

This article is a theoretical contribution to reconsidering the boundaries that are central features of collaborative public management. We identify two contrasting ways of doing boundary work: one oriented to treating them as barriers that promote separation and the other to treating them as junctures that enable connecting. We describe three general practices for creating junctures: translating across, aligning among, and decentering differences. We argue that orienting boundary work in collaboration to making connections supports efficient resilience, making it possible for systems to work even when they are disrupted or when resources are constrained. We illustrate the practices and their benefits with examples from collaborative public management.

This article is a theoretical contribution to reconceptualizing boundaries in public management and the implications of public managers' boundary work practices for resilience. Collaborative management, a central feature of modern public management, is commonly defined as a "boundary-spanning" endeavor (Crosby and Bryson 2005; Emerson, Nabatchi, and Balogh 2012; Kettl 2006) between organizations (Morse 2010; O'Leary and Vij 2012), sectors (Agranoff and McGuire 2004; Bryson, Crosby, and Stone 2006), government, and constituents (Cooper, Bryer, and Meek 2006; Osborne, Radnor, and Nasi 2013; Vigoda 2002), or as an "inclusive" orientation to making connections across a variety of types of boundaries (Feldman and Khademian 2007; Quick and Feldman 2011). The ubiquity and salience of boundaries in collaboration calls for a theoretical framework for characterizing how public managers engage with boundaries.

Previous conceptualizations often presume not only that these boundaries are tangible, but also that they are barriers that must be overcome (Abbott 1995; Caruso,

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Rogers, and Bazerman 2009). In this article, we present an alternate view of boundaries as dynamic rather than stable and as sites of connection as well as separation. Public managers negotiate these boundaries as a form of "boundary work," a term coined by Gieryn (1983) to describe the dynamic negotiation of sites of difference. Some of the actions we characterize as boundary work are described elsewhere as coordination, integration, differentiation, alignment, negotiation, or reconfiguration. These terms suit many of the phenomena in this article. However, theorizing these actions collectively in terms of boundaries and boundary work draws attention to boundaries as a common feature of collaborative management and to the choices to be made about whether and how to make boundaries into junctures where connections can be made.

We identify two contrasting ways of viewing boundaries. The first is oriented to treating boundaries as barriers that reinforce separations between groups of people, organizations, or institutional entities. The second is oriented to seeing boundaries as porous and tenuous and treating them as junctures that enable diverse connections. These orientations impact the boundary work public managers do to facilitate collaborations. In this article, we explore these conceptions of boundaries and describe three practices that public managers can enact to engage with boundaries as potential junctures where things are or can be joined rather than as separations to be worked around. The three practices are translating across differences, aligning differences, and decentering differences.

These practices are important because treating boundaries as junctures that create opportunities for connecting, rather than as inherent separations, supports resilience. Although recent scholarship on resilience in public administration has focused on the capacity of governments to minimize the risk of disaster and restore systems following crises (Wukich 2013), resilience is more generally the ability to "learn how to do better through adversity" (Wildavsky 1988, 2). Resilience involves the ability to reassemble resources and activities in ways that enable systems to continue to work despite disruptions (Beunza and Stark 2003; Walker et al. 2004; Weick and Sutcliffe 2007). Boundary work that treats boundaries as points of connection supports resilience by making it easier to reassemble resources and activities following a disruption.

Problems demanding resilience abound in public administration. Managers and their institutions frequently face disruptions in the forms of acute crises (Boin and McConnell 2007; Gibbs Springer 2012) as well as persistent challenges to the way systems have previously operated (Carpenter et al. 2012). Collaboration is an important resource for coping with these disruptions (Allan 2012; Bardach 1998; Heifitz 2009; Huxham and Vangen 2005). In fact, Goldstein (2012) introduced the term "collaborative resilience" to describe ongoing, relational processes through which collaborators enhance a community's resilience to crisis. Our primary concern is *not* the resilience of the collaborative arrangements themselves but rather the ability of public managers and others to use collaboration to reassemble resources and activities to continue addressing critical public problems despite disruption or adversity. We argue that orienting boundary work in collaboration to making connections enhances resilience.

We develop this argument by characterizing boundaries as dynamic and open to various kinds of boundary work practices, including treating boundaries as barriers or treating them as junctures for making connections. Focusing our attention on

treating boundaries as junctures, we describe three general boundary work practices that can be used to make connections, namely translating across, aligning among, and decentering differences. We then describe how treating boundaries as junctures supports resilience to cope with novel problems, system disruptions, and resource constraints. We illustrate our argument with examples of public management that show the difference between an orientation to boundaries as barriers and an orientation to boundaries as junctures and show how the latter supports resilience through collaboration. We conclude with a caution against a formulaic approach to boundary work practices and instead suggest that managers cultivate a metaorientation of inquiry about how boundaries can be approached and engaged through boundary work.

## RECONSIDERING BOUNDARIES

Boundaries are commonly conceptualized as lines that circumscribe entities such as professions, organizations, jurisdictions, political identities, or issues (Agranoff and McGuire 2004; Dawes, Cresswell, and Pardo 2009; Goldsmith and Kettl 2009; Heifitz 2009; Radin 1996; Provan and Lemaire 2012; Tilly and Tarrow 2006; Williams 2002). Although such boundaries are often taken as natural consequences of differences (Abbott 1995), we present a perspective that views boundaries as dynamic and focuses on the boundary work associated with them. Understanding boundaries as dynamic means regarding them as emergent, relational, and active (Abbott 1995; Emirbayer 1997; Gieryn 1983, 1999; Lamont and Molnár 2002; Tilly 2004; Watson-Manheim, Chudoba, and Crowston 2012). Abbott, one of the central figures in this literature, defines boundaries as "sites of difference" (Abbott 1995, 862). In his article "Things of Boundaries," he reverses the assumption that boundaries are consequences of preexisting entities. Arguing, "[b]oundaries come first, then entities" (860), he suggests that actions create sites of difference, which then constitute boundaries, which are then linked together to create what is consequently recognizable as an entity.

This view draws our attention to the different forms boundaries can take and the consequences of these forms. Abbott (1995) discusses the consequences of creating boundaries that are rigid or porous, using professional boundaries as an example:

> A good example would be actuaries, who have a tightly organized, rigidly controlled, and quite small occupation. Entry is tightly structured, careers are tightly structured, task is tightly structured. . . . Yet it is in a sense because of this that their influence is so small. By contrast, consider the accountants whose 'profession' is porous to the point of absurdity, whose careers lead in quite diverse directions, and whose task areas include heavily contested zones like tax law, unstructured areas like management consulting, and dying heartlands like public auditing. The accountants are, in fact, far more causally effective than the actuaries because they can bring their force to bear in so many different arenas, where they play so many different roles. It is precisely the structure of long tenuous boundaries anchored to a few more or less secure heartlands that enables accounting to be powerful. . . . This strength refers to endurance, to the temporal dimension of entities, as well. Rigidity provides short-term safety but long-term vulnerability. (878)

This excerpt points to the possibility and benefits of boundaries being porous. First, it reminds us that boundaries need not be barriers (Caruso, Rogers, and Bazerman 2009). They may also be junctures where things join, like the connections Abbott identifies between accountants, law, auditing, or management. It shows that the difference between barriers and junctures is not an innate feature of either the entity or the boundary but is enacted through actions taken by many different people. Second, it suggests that when boundaries are enacted as barriers, their rigidity makes the entities brittle and vulnerable. In contrast, the more flexible, tenuous, and complex boundaries support the resilience of the entity through enhanced endurance, flexibility, and impact. Whether as barriers or as junctures, boundaries facilitate the legitimacy, cohesion, and endurance of the entities they circumscribe (Benhabib 1996; Bowker and Star 1999; Gieryn 1983, 1999; Tilly 2004; Tilly and Tarrow 2006), but with different degrees of what Abbott describes as porosity, tenuousness, and rigidity.

The entities in Abbott's examples are occupations. Our focus is on public and nonprofit organizations and others who use collaborations to address public problems. Their collaborative processes include but are not limited to developing shared problem specifications, action plans, funding arrangements, or performance measurements. Skillful boundary work is important to making these collaborative processes possible (Agranoff 2006). Although all participants do boundary work, it often falls to public managers to facilitate and orient the way boundary work is approached.

## Boundary Work

The shaping of more or less rigid or flexible boundaries arises from different sorts of boundary work. Gieryn (1983) developed the term to characterize the competing efforts of public agencies and advocacy groups to distinguish what is "science" versus "ethics" or "religion" to denote who does and does not have legitimate roles in formulating public policy issues. Other scholars have adopted the phrase in other contexts to describe practices for managing sites of difference, including erecting, maintaining, relocating, or bridging them (Eden, Donaldson, and Walker 2006; Wilkinson, Lowe, and Donaldson 2010). The term points to both the effort and consequences involved in how boundaries are engaged.

Boundary work practices may make differences visible and bring them into interaction, for example, among varying disciplinary perspectives or values relating to a single problem (Bechky 2003a; Carlile 2002; Star and Griesemer 1989). They may result in the original entities' losing, retaining, or redefining their differentiation (Ernst and Yip 2009; Levina and Vaast 2005; Star and Griesemer 1989). Boundary work involves a variety of complex processes of transfer, translation, or transformation among numerous individuals and types of knowledge (Carlile 2004), frequently producing learning and change to address a problem (Bechky 2003b; Brown and Duguid 1991; Feldman and Khademian 2007; Suchman 1995). This literature suggests that when partners enter into the collaborative domains that are loosely grouped as "boundary-spanning," a wide variety of things might occur to their boundaries.

Following Abbott's discussion of the different ways in which boundaries may be enacted to be more porous or rigid, we suggest that as people engage in collaborations that address public problems they may orient to boundaries in two broadly defined

directions. The first orientation treats boundaries as firm demarcations between groups of people, organizations, or institutional entities. These boundaries act as barriers. The second orientation treats boundaries as porous and tenuous. The resulting boundaries act as junctures that may connect across a variety of differences including difference of identity, knowledge bases, issues, temporality, and organization. These differing orientations alter the boundary work public managers do to facilitate collaborations.

In the following sections we focus attention on the boundary work practices for making connections. This is because boundaries are so often regarded as barriers and options to enact them as junctures are less well recognized and understood. In addition, the potential benefits of boundary work for making connections merit further exploration. As we will describe, they are central to accomplishing resilience through collaboration and enable new ways to address public problems efficiently when systems are disrupted and resources are constrained.

## BOUNDARY WORK PRACTICES FOR MAKING JUNCTURES

We extend Abbott's distinction and the research on boundary work by identifying practices that managers can use to make junctures in collaborations. Based on a review of literature in public management and observation of collaborative efforts, we have identified three boundary work practices that operate as an orienting framework. Such practices enable public managers to create junctures, to alter existing barriers, and even to avoid creating new barriers. The three practices are sufficiently different from one another to illustrate the variety of options available for rendering boundaries porous and increasing the number or flexibility of connections. These three practices are not intended to be a comprehensive list but an aid in showing what it means to do boundary work that makes connections. They also suggest that phenomena frequently described in the literature on collaboration might be interpreted through the lens of boundary work practices. The practices are not static and could be enacted in different ways in a variety of different contexts.

### Translating Across Differences

This boundary work practice involves the process of adopting another language or way of expressing understandings to create a new, shared domain. Translation can create barriers when it is used unidirectionally to privilege one domain of understanding. Translating across difference, however, involves multidirectional translation and the collaborative production of new ways of expressing understandings that diminish the barriers created by differences.

This practice can be used to translate across many kinds of difference but is easy to see in relation to different ways of knowing. In multiple policy domains, this difference often takes shape as a barrier between technical expertise and other "nonexpert" ways of knowing in which expertise is typically privileged (Fischer 2000; Thacher 2009). The frequent presumption is that extensive or special effort is needed to make the complex, expert view understandable to the lay stakeholder or nonexpert policy maker, or that nontechnical stakeholders must advocate extensively to have their perspectives be considered (Jasanoff 1990; Dawes, Creswell, and Pardo 2009; Feldman and Ingram 2009). This kind of boundary work is a form of unidirectional

translation. It may occasionally create junctures but typically reinforces separation by privileging one domain (often that of a particular kind of expertise or a formal institution) and making participation possible only through learning the specialized language or logic of that party (Yanow 2004; Cupers 2011).

Translation boundary work that creates junctures is often marked by pluralism or multivocality. Examples include policy debates that are expanded to include numerous ways of knowing (Fischer 1993), or deliberations in which participants who literally speak different languages may eschew a single lingua franca in favor of multilingual translation as a practice for legitimating all voices and requiring all participants to listen more actively (Doerr 2012). Another approach is the cocreation of a novel domain such as integrating the knowledge of residents, students, and planning specialists into urban neighborhood plans and implementation instead of having residents be "recipients of expertise" (Feldman et al. 2006, 93) or generating hybrid, intersecting cultural identities and new practices in collaborations involving cultural diversity (Akkerman and Bakker 2011).

### Aligning among Differences

Aligning among differences involves recognizing the presence of distinctions and finding ways to enhance connections across them. This practice involves accepting the differences and using them as a basis for pursuing new, shared interests. The differences may be considered unchangeable (i.e., public safety officers and engineers have some areas of expertise that they do not share with each other) or worth sustaining (i.e., there are useful distinctions between police and water treatment departments).

Aligning among differences may be the most familiar form of boundary work to create junctures in collaborative management, particularly related to organizational boundaries. The ideal of collaboration is that it brings together different organizations (Sandfort and Milward 2008; O'Leary and Bingham 2009; Emerson, Nabatchi, and Balogh 2012; O'Leary and Vij 2012), sometimes from different sectors (Bryson, Crosby, and Stone 2006; Kania and Kramer 2011), to gain advantage from their different interests, resources, and competencies to produce complementarities and synergy. In the context of solving public problems, these strategies are extensions of the longstanding tradition of coordinating organizational units and functions internally and externally to accomplish tasks (Follett 1941; Thompson 2003; Gittell 2012).

Researchers have also discussed aligning differences in relation to how issues or interests are defined (Snow 2004). In the field of mediation, Fisher, Ury, and Patton (2011) advocate that contesting parties negotiate to discover and act on junctures of shared interests rather than "giving in" and abandoning their key differences. Narrative practices are one of the ways in which boundary work for alignment is sometimes accomplished, helping those with different policy positions to discover common ground for justifying a policy decision (Abolafia 2004) or to allow a plurality of perspectives to advocate shared aspects of a vision for the future (Goldstein et al., forthcoming).

### Decentering Differences

Decentering differences involves finding ways to work that do not activate distinctions as meaningful. This kind of boundary work makes junctures possible by eliding

boundaries that have been enacted as barriers. Public managers who decenter differences may be cognizant of potential distinctions but structure action in ways that deactivate the importance of, remove attention from, or change the meaning of differences. The differences can be rendered inconsequential by finding new ways to work together or by decentering the usual primacy of one entity over others.

One of the sites of difference in which decentering boundary work has recently been explored is the relationship between government agencies and the public or other stakeholders. These boundaries may be enacted in many ways (Koppell 2010), including often as barriers where the relationship is oppositional (Arnstein 1969) or in the New Public Management model of considering the public as customers, users, or clients of government (Denhardt and Denhardt 2000). But these relationships can also be enacted in ways that decenter difference, for example by dissipating the government insider/outsider distinction through shared roles as colearners, codeciders, or coimplementers of policy choices (Roberts 2004; Butler and Goldstein 2010; Innes and Booher 2010; Quick and Feldman 2011). These practices are prominent in governance arrangements that public administration scholars have characterized as coproduction (Ostrom 1996; Bovaird 2007; Jakobsen 2013) and inclusive public management (Feldman and Khademian 2007; Feldman and Quick 2009).

Decentering may also occur around issues and interests, for example, by reframing issues to relocate the focus from areas of discord to areas for coordinating joint movement forward (Snow and Benford 1998; Forester 2009). This does not erase difference but makes it less relevant to the work being undertaken. Sometimes decentering difference occurs via engagement with objects or documents that disarm differences as a barrier to acting together. For example, when users competing for different priorities for a watershed negotiated a collective adaptive management plan, generating a set of commonly agreed measures for evaluating its effectiveness allowed them to turn their attention to managing the resource instead of being focused on why they wanted the water for different purposes (Innes and Booher 2010). The objects serve as junctures where parties can "ally" to explore new connections and configurations without having differences among their identities or interests become central to their interactions (Star and Griesemer 1989, 407).

Another form of decentering boundary work is to "suspend" differences by creating a "third space" where interactions are person based rather than based on group affiliation (Ernst and Yip 2009, 89–90). In collaborative settings where the interactions at interorganizational boundaries involve mergers, previous research on "liminal" actors suggests the importance of public managers' abilities to step outside of hierarchical and structural differences and instead "bring their individual experience forward in social interaction with others" to create a "somewhat 'safe' setting" for creating new knowledge and practices (Howard-Grenville et al. 2011, 237).

## RESILIENCE THROUGH BOUNDARY WORK

The orientation to boundary work and the general boundary work practices we have just described are important because treating boundaries as opportunities for connecting, rather than as inherent separations, supports resilience. Resilience involves the ability to reassemble resources and activities in ways that enable systems to continue to work despite disruption and adversity (Beunza and Stark 2003; Walker et al.

2004; Weick and Sutcliffe 2007). This reassembling involves reorganizing some of the connections among parts of the system. Consequently, engaging in boundary work that treats differences among, for instance, organizational entities, geographic scales, issue definitions, or kinds of knowledge as potential sites of connection rather than as barriers is a powerful way to enact resilience.

By contrast, boundary work that creates or hardens separations into barriers often leads to rigidity. Although barriers are sometimes desirable for resilience—for example, to stabilize collaborative arrangements long enough to test and evaluate paths of action (Kaufman 2012) or to protect vulnerable parts of a system to maintain diversity or reserves (Carpenter et al. 2012)—they often undermine resilience. Socioecological resilience models explain that inflexible, unique pathways obscure important linkages among parts or scales of a system, often leading to unintended vulnerabilities (Walker and Salt 2006).

Boundary work that is oriented to making connections supports resilience by creating more and more flexible connections, thus multiplying the options for taking action. Research has shown that a "generative redundancy" of diverse connections among nodes, actors, or resources supports adaptability amidst uncertainty and abrupt change (Beunza and Stark 2003, 153). If one connection should become disrupted, the existence of other connections creates options for modifying or recombining practices to carry on or enact new ways of addressing challenges (Weick and Sutcliffe 2007) and may even permit disruption to spur productive innovation (Burgelman and Grove 2007). The value of multiple options is supported by previous research on socioecological systems (Gunderson and Holling 2002; Folke 2006; Butler and Goldstein 2010; Carpenter et al. 2012) and organizational work environments (Beunza and Stark 2003; Weick and Sutcliffe 2007), which has found that increasing the number, redundancy, and diversity of the connections within a system and the flexibility among them enhances resilience.

## Resilience in the Context of Public Problems

Resilience is necessary in contexts of disruption and adversity, characteristics that are common in public administration. Disruptions include shifts in the environment that public and nonprofit organizations are seeking to govern, for example due to war (Roberts 2010), outbreaks of new disease (Leach, Scoones, and Stirling 2010), climate change (Fünfgeld and McEvoy 2012), or shocks in the housing market (Pendall, Theodos, and Franks 2012). Adversity may include bottlenecks in the funding, staffing, or other key resources that managers need to make progress on old or new problems (Lodge and Hood 2012; Skertich, Johnson, and Comfort 2013). Wicked problems, which are common in the public domain, constitute another form of adversity. These are problems that, by definition, involve multiple boundaries and are unstable over time, presenting emergent and unpredictable features and impacts (Rittel and Webber 1973; Roberts 2004).

In the past, resilience to address these challenges was often supported through slack or redundancy in the supply of resources, meaning that organizations or collaborations have some excess capacity that they can deploy when circumstances demand it. These extra resources "can be called upon to manage surprises" (Coffey 2010, 69) and are useful

to entities that face uncertain environments, enabling them to respond flexibly and "survive in the face of adversity" (Cyert and March 1963, 38). Slack, however, can also be seen as inefficient (March and Simon 1958; Scott 1998), and longstanding pressures on public managers to do more with less (Osborne and Gaebler 1992) show no sign of abating. In the current context of severe fiscal constraints, many local and national governments around the world have cut back their scope of activities and tended to avoid new services and programs in order to focus on the services they consider most critical and maximize efficiency in what they do deliver (Wolman 1983; Radnor and Walley 2008; Armingeon 2012; Nelson 2012; Peters 2012). In today's governance climate of ever scarcer resources and a drive for ever greater efficiency, there is rarely appetite or opportunity for slack.

### Efficient Resilience

Boundary work that is oriented to creating junctures provides an alternative to slack as a means of creating or supporting resilience through collaboration. It is specifically a strategy for *efficien*t resilience because it multiplies options for responding to public problems in ways that utilize scarce resources effectively. It is a kind of "smart practice" as defined by Bardach (1998, 36), a way of "taking advantage of some latent opportunity for creating value on the cheap." The latent opportunity exists in the potential of collaborations to deal with resource scarcity by coordinating the actions of partners and avoiding duplication of effort and using fewer resources to accomplish work or accomplishing more with the same resources. Although collaborations hold the promise of such efficiency, they do not always deliver. Indeed, the cost of collaboration may overwhelm the potential efficiencies (Huxham and Vangen 2005).

Boundary work that creates connections promotes efficient resilience in several ways. First, it can reduce resources spent on resolving conflicts associated with barriers that force either/or decisions. Avoiding costly conflict, however, is only a part of how boundary work can support resilience when resources are short. Second, boundary work that creates connections supports equifinality. Equifinality, sometimes defined as "positive redundancy" (Roe and Schulman 2008, 61), is the capacity of a system to take many paths to reach a desired end. Without equifinality, systems that over exploit one pathway or a subset of resources to achieve a particular desired end as efficiently as possible are very vulnerable to any disruption in that pathway or resource supply (Walker and Salt 2006; Carpenter et al. 2012). Third, boundary work to make new or more flexible connections not only allows some of the same outcomes to be achieved in new ways, but it also facilitates outcomes and resources (Feldman and Quick 2009) that were not previously envisioned or possible.

## ILLUSTRATIONS OF BUILDING EFFICIENT RESILIENCE THROUGH CREATING JUNCTURES

In the following, we illustrate our argument with specific examples of boundary work that reorients processes away from barriers and toward junctures. Although the boundary work practices we have described are often used in conjunction with one another, in each example, we illustrate the practice that was most prominent in it. With

each example, we demonstrate how boundaries were enacted as dynamic junctures for making connections. We highlight the role of boundary work in enhancing resilience by creating more and more flexible connections, showing how it helped public managers to reassemble resources and practices in ways that allowed them to address public problems despite disruptions, resource constraints, or other adversity. We draw attention to the specific ways that this resilience is efficient.

The examples are from a single midsized city in the Midwestern United States that has used boundary work oriented to making connections to sustain its work on public problems despite increasingly tight funding and staffing. They are drawn from our 15 years of ethnographic research about inclusive and collaborative public management practices in the city (Feldman and Quick 2009; Quick 2010; Quick and Feldman 2011). Previously we noted that many local and national governments around the world have had to constrain severely their activities due to fiscal pressures. The public managers in this community have increased efficiency and cut back some levels of service delivery. But they have also been able to initiate efforts to address new or longstanding problems or goals with a same or greater level of effectiveness. The public managers attribute their ability to make these shifts—and the low level of conflict and exceptionally small number of lawsuits they have faced—to their collaborative approach to governance. The three examples we have chosen involve public management problems that are not unique to this city, however: adopting a zoning code to implement a new land use master plan, dealing with contesting demands for roads, and revitalizing a problem-ridden neighborhood.

## A Novel Zoning Code

Our first example involves a zoning ordinance as the site of difference. Zoning ordinances often use rarified language that acts as a barrier, prohibiting people without urban planning expertise from being able to advocate for what they want in their neighborhoods or to evaluate proposed projects and changes in policy. As this illustration shows, however, such sites of difference can be negotiated as porous boundaries that support points of connection. In this setting, boundary work enabled potential boundaries to be junctures between people with urban planning expertise and people with neighborhood expertise as well as between neighborhoods affected by the zoning ordinance. The boundary work of participants in this collaborative policy-making process supported resilience by creating a zoning program that the community can adapt to accomplish various needs. It did so by creating more flexible connections among parts of the zoning code and by creating new connections with residents who could help implement zoning. These moves enhanced efficiency by creating new avenues and resources for zoning.

### *Boundaries and Boundary Work*

The collaborative work that public managers facilitated involved city staff, residents, developers, and neighborhood associations in a collaborative process for revising the community's zoning ordinance together. One of the principal boundary work practices they employed was *translating across difference,* by adopting another language or

way of expressing understandings to create a new, shared domain. These stakeholders had previously already agreed to create a more urban environment by introducing nonresidential uses or increasing the number of housing units in some areas of the city. The city planner knew that the zoning guidelines on the permitted density of housing units needed to be updated to initiate those changes, but that revising the guidelines would almost certainly be complex and controversial. She knew she did not know what the best density policy would be, so she "tossed up" one option for the participants in the collaborative process as a starting point for discussing density. It was a simple and standardized definition of density for the whole city.

At an open community meeting, residents discussed the way they would like their neighborhoods to feel and suggested replacing the standardized definition with a combination of density control measures, customized for different areas of the city. They asked the planning director to use her expertise in zoning law and implementation to draft code language for consideration at a future meeting, which she did. The code they ultimately adopted was novel and demanding: it included eclectic combinations of density regulation tools for each neighborhood that would require more sophistication to implement than a standard uniform code.[1] The planner was glad to take this approach because she had "the community behind me" to support its implementation. She and her staff would not bear the full load of interpreting and applying the code, because so many others were prepared and committed to help to implement it.

### *Creating Junctures*

In this example, language could have been used as a barrier, but was not. The planning director explained the standard zoning code terms and measures to the others in the room, an action akin to creating a glossary of terms so that "lay" users can access "expert" knowledge. The converse occurred when residents explained to her how they wanted their neighborhoods to "feel." Each of these actions, done alone, would have created a separation. The group did not, however, merely convey their preferences so that they could be inscribed in expert code that they would then have to be trained to use. They temporarily set aside the necessity of using the specialized language, which enabled them to translate across their perspectives, discover options that were new to everyone, and coproduce a novel zoning regulation system. Instead of zoning language becoming a barrier to exchange, the dialogue about how the neighborhood should feel was a juncture allowing more people to engage in the discussion and contribute to the resulting choices.

### *Efficient Resilience*

The process and the resulting code enhanced resilience by providing a way for this community to reassemble practices and resources to address zoning needs in an ongoing way. Whereas differences between knowledge of expert coding language and of neighborhood feel could have become a barrier, bidirectional translation work allowed the knowledge of the planning staff to be a resource for these neighborhoods, and vice versa. Unexpectedly, this allowed a novel approach to the code that the planning staff

1 This is an early adoption of the form-based code approach to zoning (Slone and Goldstein 2008), which planners are increasingly embracing because of the flexibility it provides.

had not imagined. The code became more versatile and less brittle, so that they could use it to guide planning decisions in many different circumstances. Notably, it could be used flexibly to accomplish different goals across a diverse set of neighborhoods instead of boxing them all into a closed set of possibilities for regulating density that all neighborhoods would have to fit into.

The translation boundary work is also an example of accomplishing resilience efficiently. It avoided sources of costly conflict, for example, the time and money residents might have spent fighting an inflexible code that did not fit their neighborhood. These scarce resources may now be spent instead discussing real differences about what kind of neighborhood people want to have and learning about the actions they can take to create it. Making these new connections enabled positive redundancy by creating new pathways for implementing the code. The translation boundary work also created new resources by transforming residents as well as planning experts into resources for interpreting the zoning ordinance in the future, providing technical as well as political support for enacting it.

## A Bike-Friendly City

The site of the difference in the second example was between potentially rivalrous interests that were both demanding improved bicycling infrastructure, but of different types. They were people using city streets to get around town and mountain bikers wanting interesting off-road terrain. The different kinds of cyclists were initially competing for legitimacy, allegiance, and resources from the city and potential supporters. While collaborating on a cycling plan for the city, however, the on-road and off-road cycling groups engaged in boundary work to align their differences. While continuing to pursue their own interests, they combined their efforts to begin building an integrated, comprehensive cycling system with enhanced amenities for all who live in or visit the city. These shifts helped the community move forward with cycling improvements, despite limited resources for which different groups had previously been competing, and earned them national recognition as a bike-friendly city.

### *Boundaries and Boundary Work*

The principal boundary work practice that public managers used to transform this dynamic was *aligning among differences,* recognizing differences and making use of them to achieve complementarity because the differences cannot be changed or are useful to sustain. After a few months of staff and elected officials receiving dozens of calls from unhappy cyclists, the managers convened a group of 20 individuals to form a cycling committee in which they intentionally incorporated a wide variety of cyclists, elected officials, and city and county agencies. They also assigned city staff and consulting resources to support it. Initially, mountain bikers were fearful that their interests would be neglected due to the larger numbers of on-street cyclists in the community. They were frequently derisive of street cyclists' needs as they tried to redirect resources to mountain bikers. When the parties came together in the committee, the different kinds of cyclists had their first opportunity to explore each others' interests and their relationships.

Collaborating to create a bike-friendly city application to the League of American Bicyclists was one of the proposals that emerged from the committee discussions. The application was a way to assess cycling infrastructure and policies in the city and articulate some goals. Initially, many of the participants viewed it as a way to make sure their particular issue was included in the application. Through engaging in the application process, however, they recognized some common as well as specialized interests. Their shared goals included getting more people on bikes, education, and signage to make cycling safer for everyone and expanding the off-road and on-road trails in ways that would create a more extensive, connected network of trails of any type. They also discerned that by working together, they could strengthen their impact on these goals through amassing a larger total number of advocates and through the greater legitimacy their positions would have precisely because divergent interests were all supporting them.

Within a year the public managers and other participants assembled a shared application and successfully received a bronze bike-friendly city designation. In addition, they formalized their loose coalition into a new nonprofit through which they have unanimously designed, helped to fund, and started to implement a comprehensive plan for policy, education, and infrastructure improvements for street commuting and mountain biking. In addition, they have moved beyond the cycling community to ally with other interest groups to advocate for "complete streets" that accommodate cyclists, pedestrians, and vehicles safely.

### *Creating Junctures*

In this example, the differences among groups were initially being used as a barrier, with mountain bikers hardening boundaries among cycling interests by framing policy and infrastructure improvements as either/or choices to support mountain or street bikers. The managers helped to transform these boundaries from barriers into junctures by bringing the groups together in the cycling committee. In working together on the summit and bike-friendly city plan, the parties aligned their differences to accomplish complementarity and integration. The differences they aligned included some distinctions that could not be changed (e.g., their respective preferences for paved and unpaved paths) and some that were advantageous to sustain (e.g., their individual bases of supporters and styles for advocacy). Through an integrated plan that included and connected components for various kinds of riders, they addressed their shared goals. Their new cohesion did not erect a new barrier between cyclist enthusiasts and others. The bike path improvements have made cycling safer and more available for everyone while the complete streets approach has connected cyclists with drivers and pedestrians.

### *Efficient Resilience*

The individual cycling interests in this example did not merely strengthen their ability to gain what they wanted. The collaboration among them enhanced resilience in the community's capacities to improve cycling amenities by strengthening and expanding the circle of people involved and the connections among elements of cycling programs. Aligning off-road and on-street cycling paths has made each type of cycling more accessible to all riders and improved connectivity of the bike system as a whole.

Recognizing potential alignments with pedestrians, disabled people, and mass transit advocates has enabled these parties and cyclists to join forces to work for complete streets. Increasing the number and diversity of people interested in cycling and streets has supported the development of a diverse, integrated, and robust system of policies and infrastructure for cyclists and other people.

The boundary work to align among differences enabled resilience to be created efficiently. While intentionally retaining some differentiation among cycling issues, connecting them instead of partitioning them into independent streams has helped them become synergistic and avoid burning up resources on competing for attention or discrediting others' views. Aligning also generated several kinds of new resources. Through the personal relationships they built in their collaboration, mountain bikers went street cycling with on-road bikers, and vice versa, and generated additional avid supporters for both kinds of cycling. City staff and mountain bikers built sufficient trust to create a new off-road park that the cyclists constructed and managed, creating a new amenity that the city could not have afforded to open and operate. Moreover, being designated a bike-friendly city added to the accolades the city has received for environmental sustainability.

## From Crime Control to Neighborhood Improvement

Our third example concerns definitions of problems as the sites of difference. In a troubled neighborhood of the city, residents and various units of city government had been trying for years to cope with drug dealing and crack houses, abandoned buildings, dilapidated homes, and a lack of recreation opportunities. Boundaries between these issues had hardened into barriers that were preventing a holistic understanding of the problems and collaboration among the units of government working on them. In this example, however, differences in how various parties would view and manage a problem were decentered to make organizational boundaries—within and across the city government—less important. Boundary work by members of a collaborative team working in the neighborhood led to redefining drug dealing, which had been seen as a crime issue that was the job of the police department to fix, so that other organizations and sources of knowledge became relevant and incorporated into an integrated approach. Through decentering their ways of knowing and jurisdictions over specific issues, the collaborators reoriented their knowledge and practices to address community problems more effectively. Decentering differences also allowed them to generate unexpected, additional outcomes without placing more pressure on scarce resources.

### *Boundaries and Boundary Work*

The principal boundary work that public managers engaged in was *decentering differences,* or finding ways to work that deactivate the importance of, remove attention from, or change the meaning of differences. They did this through a new approach to interacting with neighborhoods called community-oriented government (COG) in which representatives of many city departments and neighborhood organizers met regularly to discuss problems and possible solutions. The COG participants were concerned about the neighborhood: the issues of poverty and crime in the neighborhood

were chronic, continually disrupting residents' well-being despite tremendous commitments of government resources. Furthermore, some resources (e.g., parks and recreation) were declining rapidly due to city budget shortfalls. Progress on addressing these problems accelerated at a community meeting where the stage was set for decentering differences. Residents and community organizers shook up the traditional understanding of the drug problem as a crime and policing issue when they asserted that no amount of additional policing attention could resolve the drug problem, because it did not begin and end with criminal activity. It also, for instance, involved a high number of abandoned houses that had become crack houses. Similarly, poor lighting, general grubbiness, and the fragmented shape of the neighborhood park provided opportunities for drug dealing and discouraged residents from coming out to reclaim their neighborhood.

The members of COG began the work of decentering their authority to know and their jurisdiction to manage problems by being open to new definitions of the problems. From the police department to the neighborhood's faith-based organizations, they took a fresh look at what was going on in the neighborhood and what they might do about it. Through the COG structure, residents and the city began to explore the neighborhood's problems holistically and to create novel connections among issues and city departments. For example, concerns about drug dealing in abandoned houses led the legal, planning, and community-development department to institute a moratorium on their sale in the neighborhood. That gave the community-development department time to purchase a few properties, engage the help of nonprofits, and organize some complicated land swaps to expand and revitalize the neighborhood park and assemble a set of homes into an affordable housing project. The public works department got involved, helping to fund improvements and expansion of a centrally located park by changing the timing and location of an underground stormwater tank installation they had been planning.

### *Creating Junctures*

These material outcomes were possible because COG intentionally deactivated many of the previous differences among problem definitions, among city departments and between them and residents, and among kinds of authority. The COG structure was a juncture, bringing perspectives together in new ways of identifying priorities and doing work. Its focus on the neighborhood as a whole diminished the strength of the analytical lenses that an individual department, such as police or parks and recreation, would bring to the area. It relocated attention from those siloed problem definitions and organizational boundaries via an integrated, place-based view. COG's invitation to work together to address crime shifted some of the usual power dynamics by decentering traditional roles for knowing and dealing with the problem. The privileged position of government experts to analyze and manage problems in the neighborhood was decentered by learning through residents' lived experience, permitting solutions to be designed with the benefit of multiple perspectives. Although some differences remained—such as public safety officers' unique authorities to make arrests—city officials diminished some of their usual stance of holding primary control and responsibility for managing the problems.

### *Efficient Resilience*

Decentering differences through the COG structure enhanced resilience by helping the collaborating partners to find new and more effective ways to address adversity in Rosemead. Decentering differences invited new understandings of the problem and increased the number, diversity, and flexibility of organizations and options for action that could be connected in an integrated approach. Through those connections, the collaborators were able to accomplish more for residents' safety and pleasure in their neighborhood. It not only enabled these stakeholders to address crime more effectively, it also helped them to expand a neighborhood park, build 20 new affordable homes, and enjoy a benefit—instead of just construction hassle—from the underground stormwater tank installation.

The process this neighborhood undertook is an example of how decentering difference supports efficient resilience in the form of positive redundancy and creating new outcomes. Individual organizations had been trying to optimize a single outcome—reducing crime, cleaning up the park, creating affordable housing, or managing stormwater—in siloed efforts that had been ineffective and expensive. Through boundary work to make connections, these stakeholders took complementary actions to use more effectively the scarce resources they had. Many improvements were accomplished not through new and additional resources but through reorienting and reconnecting existing resources, such as using the stormwater construction project, affordable housing funds, and land swaps to create a larger park and replace abandoned structures with affordable housing.

## ADOPTING INQUIRY AS A METAORIENTATION TOWARDS BOUNDARIES

We have argued that boundary work can be enacted in ways that create junctures for connecting and that this boundary work increases the potential for resilience and efficiency in responding to changing or difficult circumstances. We have illustrated these points with examples of how public managers have made connections to deal with public issues. In the examples, we highlighted how these connections supported resilience by enabling new options for action despite adverse conditions such as disruptions or resource constraints. We also showed how those boundary work practices accomplished resilience efficiently, by avoiding wasted effort to cope with differences that are barriers, creating positive redundancy, and generating additional and unexpected resources and outcomes. In this concluding section, we focus on the metaorientation of boundary work, cautioning against a formulaic approach to boundary work practices and instead recommending an expansive stance of inquiry towards what might be done at all kinds of sites of difference.

Our focus in this article has been on showing that boundary work can create boundaries as junctures that support efficient resilience. We want to be clear that we are *not* proposing a formula for the best practices for coping with difference, accomplishing effective collaboration, or supporting efficient resilience. Indeed, we have avoided making broad claims about particular types of difference demanding boundary work. There is no complete list of relevant differences, and dealing with one site of difference may even give rise to a new one. The impact of being attentive to boundary

work at sites of difference lies in the options it provides in a broad array of circumstances. Similarly, we have not identified particular classes of problems demanding boundary work. Although complex issues entailing multiple boundaries and situations of resource scarcity or other adversity might benefit the most from the potential of a connection-oriented approach to boundary work, our illustrations show that addressing more mundane issues through this orientation is also beneficial and may make more resources available for dealing with the more complex issues.

Most important, although we have drawn attention to boundary work practices in collaboration, there are no specific practices that will always support efficient resilience. The boundary work practices we have identified—translating across difference, aligning differences, and decentering differences—are orienting frameworks. They are not at the same level as specific, discrete tasks such as setting up a meeting, doing a SWOT (strengths, weaknesses, opportunities, and threats) analysis, or creating a glossary. While executing those tasks is often useful, absent a broader understanding of the potential for junctures and porous boundaries, they are as likely to reinforce barriers as to create junctures and as likely to produce rigidity as resilience. For example, glossaries often function as one-way translation that can easily reinforce rather than disarm barriers.

Dealing with difference in ways that promote resilience is an ongoing process rather than an outcome or steady state (Beunza and Stark 2003; Weick and Sutcliffe 2007; Goldstein 2012). Collaborative governance involves ongoing dynamics that may support adaptation of a complex governance network to better address public policy problems (Emerson, Nabatchi, and Balogh 2012). We suggest that one of the pathways to accomplishing that adaptation is the constant refreshing of boundary relationships in ways specific to the context of the specific relations among governance arrangements, the systems they govern, and the particular features of their often emergent differences. An orientation to boundaries in collaboration as junctures enables efficient resilience by supporting an *ongoing* capacity to adapt to emerging circumstances.

## Stance of Inquiry

Rather than a formula, what our article proposes is a stance of inquiry toward boundaries. This stance involves observing differences, being cognizant of the barriers that could ensue or that have been enacted in the past, questioning whether the differences are important or fixed, and discerning possibilities to change the significance of differences. In general, the stance requires public managers to approach difference as a potential resource (Feldman and Quick 2009) that can be engaged and to inquire about the kind of opportunities that difference presents. This ongoing orientation to asking what kinds of opportunities boundaries present is a generalizable "smart practice" (Bardach 1998) that enables public managers to find ways to move forward on public problems even under conditions of adversity.

### *Expansive Framework*

Combining this stance of inquiry about boundaries with an orientation to making junctures that create opportunities for connecting can help managers and other

collaborators to discover new channels for exploring and addressing problems. As noted in our introduction, collaboration is increasingly recognized as an essential part of public management. Boundary work is an important part of supporting these efforts to work together. Whether the boundary work reinforces barriers or creates junctures affects the kind of work these collaborations are able to do.

The orientation to boundary work we have described does not require that public managers make all potential connections, but rather that they be open to the potential of an ever-expanding set of connections and the role their actions play in moving from systems of relatively closed entities to entities connected in an ever-expanding framework. A stance of inquiry may lead to excluding or including entities. An appreciation of boundaries as dynamic and a stance of inquiry about what might be done with them, however, makes the boundary work involved in excluding and including visible and open to fresh interrogation.

Using a stance of inquiry to recognize opportunities for junctures enables resilience. We have shown that the ability to make a variety of connections supports resilience. Having many possible connections among groups of people and organizations provides opportunities for reassembling actions and other resources in ways that allow them to continue working despite adversity. We have further argued that the resulting efficiency is particularly important to supporting resilience in contexts where slack resources are not available.

Another advantage of the expansive potential of this approach to boundary work is the capacity to promote democratic inclusion and accountability. Juncture-oriented boundary practices make it possible for more people, information, organizations, issues, and time periods to be included in collaborative efforts to address public problems, enabling the discovery of new options (Daniels and Walker 1996; Innes and Booher 2010). Further, they may alter the consequences of differences in terms of authority, power, or problem definition, opening more options for managing power, providing voice, and ensuring meaningful impact among people or perspectives that are typically excluded from policy decision making (Briggs 1998; Huxham and Vangen 2005; Parekh 2002; Young 2000). In this way, boundary work practices oriented to making connections are consistent with patterns described as inclusive public management, an expansive framework in which public managers are continually attentive to possible collaborations (Feldman and Khademian 2000; Quick and Feldman 2011). We have not explored the relationship between resilience and democratic inclusion and accountability. Here we merely note that the same orientation to boundary work promotes both. There may be important synergies between them. At the very least, the combination is an attractive consequence of public management efforts.

## CONCLUSION

We recognize that creating junctures through collaborative boundary work is not in every instance better for governance, resilience, or public value than boundary work to sustain or strengthen distinctions, but we suggest that it often is. Although there may be strategic, ethical, or other reasons why barriers are important, for example, to avoid processes that are too compromising for the entities involved, it is too often taken for granted that

boundaries can only be enacted as barriers and not as junctures making connections. It is too often assumed that sites of difference are problems to be resolved rather than opportunities to be engaged. In writing this article we hope to make it easier for public managers and public management scholars to see the potential of another kind of boundary work and to alter their actions both in practice and in research to embrace that potential.

Our focus on boundaries draws attention to a specific process (boundary work) and some of the general practices (boundary work practices of translating across, aligning, and decentering differences) that enable collaborations to work well and to promote efficient resilience. Public managers often occupy particularly good positions to engage in this boundary work. They can affect how differences among participants in collaboration are taken up and whether these differences are used to enhance or inhibit ways of working together.

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