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Varieties of Participation in Public Services: The Who, When, and What of Coproduction

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The Who, When, and What of Coproduction

Tina Nabatchi

400 Eggers Hall
Maxwell School of Citizenship and Public Affairs
Syracuse University
Syracuse, NY 13244
tnabatch@syr.edu

Alessandro Sancino

Department of Public Leadership & Social Enterprise
The Open University
Walton Hall
Milton Keynes (UK)
MK76AA
alessandro.sancino@open.ac.uk

Mariafrancesca Sicilia

Department of Management, Economics and Quantitative Methods
University of Bergamo
via Dei Caniana, 2
24127 Bergamo (Italy)
mariafrancesca.sicilia@unibg.it

Author Biographies

Tina Nabatchi is an associate professor of public administration and international affairs and a Tenth Decade Scholar at the Syracuse University Maxwell School of Citizenship and Public Affairs. Her research focuses on citizen participation, collaborative governance, and dispute resolution in public administration.

Alessandro Sancino is a Lecturer in Management at the Department of Public Leadership & Social Enterprise, The Open University (UK). His research focuses on citizen participation and stakeholder engagement across the public policy cycle and on how public outcomes are co-created within a place.

Mariafrancesca Sicilia is an associate professor at the University of Bergamo and Visiting Fellow in the Department of Public Leadership and Social Enterprise (PuLSE) at The Open University. Her research covers public sector accounting and accountability and models of public service delivery.

Practitioner Points

1. The typology developed in this article provides terminological clarity by offering vocabulary for describing and defining variations of coproduction.

2. Reflecting on the who, when, and what of coproduction can help address the conceptual confusion and ambiguity surrounding coproduction.

3. The typology of coproduction enables practitioners to identify different forms of coproduction and to select the type that is best aligned with their goals and purposes.

4. Describing and explaining the variations in coproduction may facilitate the examination and comparison of cases and experiences and contribute to improvements in evaluation, transparency, and communication.

Acknowledgement

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Abstract

Despite an international resurgence of interest in coproduction, confusion about the concept remains. This article attempts to make sense of the disparate literature and to clarify the concept of coproduction in public administration. Based on some definitional distinctions and considerations about *who* is involved in coproduction, *when* in the service cycle it occurs, and *what* is generated in the process, we offer and develop a typology of coproduction that includes three levels (individual, group, collective) and four phases (commissioning, design, delivery, assessment). We describe and illustrate the levels, phases, and typology as a whole with several examples. We conclude with a discussion of implications for research and practice.

Interest in coproduction has waxed and waned since the concept was first introduced in the 1970s and early 1980s to explain and give theoretical foundation to practices that involved members of the public in the delivery of public services. In recent years, the concept has seen a global resurgence of interest among scholars and practitioners, evidenced by the growing number of international study groups, special journal issues, and scholarly and practitioner publications, as well as by the growing number of coproduction programs and activities in public organizations. Despite the volume of scholarly and practitioner work in public administration, confusion about coproduction remains (Brandsen and Honingh 2016; Jo and Nabatchi 2016). This confusion stems from several definitional and conceptual problems, as well as from empirical issues, with the latter arguably being a function, at least in part, of the former.

First, though perhaps better defined and understood in the business sector (Agarwal 2013), no clear and consistently used definition of coproduction appears in the public administration literature. In public administration, coproduction is generally understood to mean 'the involvement of both users and public sector professionals in the delivery of public services' (Nabatchi, Steen, Sicilia, and Brand 2016); however, "this definition is neither used consistently nor applied in ways that make clear what does (and does not) constitute coproduction" (Jo and Nabatchi 2016, 1104; cf. Brandsen and Honingh 2016; van Kleef and van Eijk 2016). This definitional ambiguity, along with the growing bandwagon effect, has led scholars and practitioners to apply the term coproduction to wide range of areas and activities that involve a wide range of actors.

Second, given definitional and conceptual confusion and the breadth of applications, the evidence base for coproduction is relatively weak (Bovaird and Loeffler 2016; Brandsen and Honingh 2016). Coproduction is often the subject of exploratory, single case study

research, seldom the subject of explanatory research, and rarely, if ever, the subject of comparative research and meta-analysis (Brandsen and Honingh 2016; Jo and Nabatchi 2016; Voorberg, Bekkers and Tummers 2015). Moreover, the normative appeal and orthodoxy surrounding coproduction may be hindering needed empirical scrutiny. Thus, different studies use different interpretations of coproduction, calling into question the comparability of findings (Brandsen and Honingh 2016, 428) and limiting the ability of scholars to produce systematic, generalizable research (Jo and Nabatchi 2016).

In this article, we seek to address some of these challenges by exploring the who, when, and what of coproduction. We begin with a brief literature review, focusing mainly on its history, definitions, and applications. Based on some definitional distinctions, we then present a 3x4 typology of coproduction constructed around *who* is involved in coproduction and *when* in the service cycle the activity takes place. When these dimensions are taken together, one is able to develop a better sense of the *what* of the activity (i.e., the nature of the product generated in coproduction). We illustrate these dimensions and the coproduction typology as a whole with several examples. We conclude with a discussion about the implications of the typology for research and practice.

Understanding Coproduction

Coproduction entered the lexicon of public administration in the late 1970s and early 1980s. Coined by Elinor Ostrom and her colleagues at the Indiana University Workshop in Political Theory and Policy Analysis, the term was used to help explain the role of citizens in the production of public services (Ostrom 1972, 1996; Ostrom and Ostrom 1977; Parks et al. 1981; Percy 1978). Specifically, coproduction was used to describe "an emerging conception of the service delivery process which envisions direct citizen involvement in the design and delivery of city services with professional service agents" (Brudney and England 1983, 59). Perhaps not surprisingly, the rise of the concept coincided with a period in the United States

marked by fiscal cutbacks, which led to calls to produce more with less, redevelop intergovernmental service delivery arrangements, focus on operational productivity, and de-professionalize bureaucracies (Alford 1998; Brudney and England 1983; Levine and Fisher 1984; Parks et al. 1981). These and similar efforts flourished around the world throughout the 1980s and early 1990s, particularly under the banner of New Public Management (NPM) (Hood 1995; Pollitt 1990; Stewart 1993).

Many have criticized NPM and similar reforms for their heavy focus on market-oriented tools and mechanisms, arguing that the reforms failed to improve accountability, transparency, and responsiveness and instead contributed to various public sector crises (for discussions, see Pollitt 1990; Terry 1998). We do not wish to repeat those arguments here. Instead, we wish to note one of the unintended consequences of these reforms – the rise and evolution of coproduction as both an academic concept and a professional practice.

In rather simplistic terms, NPM and other market-oriented reforms led to the involvement of public, private, and nongovernmental actors in public services, who in turn devolved responsibilities to individual service users (cf. Levine and Fisher 1984). The logic was straightforward: through their contributions, service users could help reduce costs and improve the quality of services provided to them (Alford 2014). Much of the early research assumed that coproduction was part of the natural state of organizations (even if it was not called coproduction): organizations involved in health, education, policing, fire, environmental, and similar activities implicitly involved citizens in service delivery. However, as organizations increasingly were asked to do more with less, assumptions about coproduction changed. Rather than being seen as an already occurring practice, coproduction was viewed as something to be introduced to organizations and integrated into operations. This shift in assumptions gave wide berth to practical applications of the concept in the public sector.[1]

Attention to coproduction waned in the 1990s, but the concept regained popularity in the 21st century for at least three reasons. First, the early 2000s saw widespread recognition of the increasingly multi-sectoral nature of governance. Sometimes dubbed the "new governance" (e.g. Bingham, Nabatchi, and O'Leary 2005; Salamon 2002), this approach recognizes the complex relationships between actors and organizations in the public, private, and non-governmental sectors. It emphasizes a pluralistic model of public service based on inter-organizational relationships, networks, collaborative partnerships, and other forms of multi-actor policymaking and public action (Agranoff and McGuire 2003; Emerson and Nabatchi 2015; Huxham and Vangen 2005; Kickert, Klijn, and Koppenjan 1997; Stoker 2006). Second, the global financial crisis, which hit nations around the world in 2007 and 2008, further strengthened interest in coproduction. Indeed, many modern calls for coproduction in light of fiscal constraints mirror those of the 1970s and 1980s. Third, the progressive decline of citizenship and the sense of *moi commun* (a shared ideal in which the individual is fully part of the whole community; literally a "common self"), has prompted scholars and practitioners to look for new public service delivery mechanisms that reinvigorate the role of citizens in their communities beyond simply voter and customer (Levine and Fisher 1984).

Coproduction has thus reentered the public administration stage, capturing the attention of a wide range of actors, from government officials and academics to leaders in the nonprofit and private sectors. Some see coproduction as necessary in an era of austerity, and others see it as a way to redefine the roles of government, civil society, citizens, and service users (Nabatchi et al. 2016). Still others argue that it creates public value: it has instrumental value for organizations in terms of improving efficiency, effectiveness, and innovation (Osborne, Radnor, and Nasi 2013); instrumental value for citizens in terms of satisfaction, need fulfillment, and empowerment (e.g., Levine and Fisher 1984; Needham 2008; Sancino

2016); and normative value for society in terms of citizenship and democratic governance (e.g., Dunston et al. 2009), social capital (e.g., Marschall 2004; Jakobsen 2013; Meijer 2011; Schneider et al. 1997), and accountability (e.g., Ostrom 1996). Regardless of its raison d'être, coproduction is often viewed as an option that "can add to the repertoire of institutional arrangements available to public sector organizations in seeking to achieve their purposes" (Alford 2009, 10). It relies on the idea that people represent "huge untapped resources" that can be mobilized to trigger "radical innovation in public services" (Boyle and Harris 2009, 14, 3; see also Osborne and Strokosch 2013).

Despite growing interest in coproduction, the concept remains muddled. The lack of a clear and consistently used definition has led to tremendous variety in how coproduction is practiced and studied in public administration. In the next section, we explore various definitions of coproduction, paying particular attention to how those definitions contribute to understanding about the who and the what of coproduction.

Defining Coproduction: The Who and The What

In its initial formulation, the "co-" side of coproduction involved two sets of actors – "regular producers" (i.e., government professionals) and "citizen producers" or "coproducers" (i.e., laypeople who participate voluntarily as individuals or in groups) (Ostrom 1996; Parks et al. 1981). Over time, however, scholars expanded both the variety of actors in coproduction and the conditions of their relationships (Alford 2014; Bovaird 2007). Table 1 illustrates this point with a sample of coproduction definitions from the last several decades. These definitions variously identify the "regular producers" as public agencies, public agents, professionals, or service providers, and the "coproducers" as citizens, clients, consumers, service users, community members, families, or neighbors. They also identify other actors such as community organizations, volunteers, or people outside of an organization or government. Moreover, some specify voluntary engagement among actors,

while others do not, and still others add additional relational requirements such as active engagement, long-term or reciprocal interactions, resource contributions, or value creation.

[INSERT TABLE 1 ABOUT HERE]

Likewise, the "production" side of coproduction initially focused on service delivery, but now is applied across the public service cycle, as well as to areas that are generally unrelated to public services. Thus, the "what" of coproduction is complicated by the range of activities to which the term is applied. Among myriad examples, coproduction has been used to describe activities such as:

- Park and neighborhood cleanup programs (Brudney and England 1983)

- Residential security measures, crime prevention education, and neighborhood watch, witness assistance, and auxiliary police programs (Layne 1989)

- Parental participation in childcare services (Pestoff 2006) and school activities (Bifulco and Ladd 2006)

- Garbage collection, waste recycling, filing taxes, and using postal codes (Alford 2009)

- Fire services and public housing (Alford 2014)

- Participatory budgeting (Barbera, Sicilia, and Steccolini 2016)

- Probation (Surva, Tõnurist, and Lember 2016) and immigration services (Jakobsen 2013; Tu 2016)

In sum, the term coproduction is applied to a wide range of professionals and laypeople, and is used to describe activities involving traditional and untraditional service areas, as well as activities that have nothing to do with service delivery but rather attend to other elements of public services and public policies. For some, the broad range of actors,

activities, and applications may be seen as a negative development, an indication that coproduction is used indiscriminately to describe virtually any activity involving people other than government agents. In contrast, we believe the multiple uses and applications demonstrate that coproduction is a provocative concept with high generalizability (a criterion in evaluating the strength of concepts and theories) and proven usefulness to a broad range of scholars and situations.

We also believe that the concept needs to be refined, particularly because its widespread application has implications for practice and study. For practice, the inability to clearly define and explain coproduction means that public servants and officials do not see its full potential, underestimate its use and impacts, are challenged to attract participants, and supply inadequate resources to such efforts (Bovaird and Loeffler 2016; Jo and Nabatchi 2016). For scholars, the lack of conceptual clarity makes it difficult to discern variations in coproduction processes, analyze the use of coproduction, conduct cumulative research, and generate sound, generalizable knowledge (Jo and Nabatchi 2016). Simply put, the lack of demarcation "has obscured critical appraisal of the meaning and implications of coproduction from both a conceptual and a policy-making perspective" (Brudney and England 1983, 59; cf. Brandsen and Honingh 2016).

To address these problems, some scholars have suggested narrowing the definition of coproduction and focusing on core elements (e.g., Brandsen and Honingh 2016). Others have suggested simply accepting coproduction as a "heterogeneous umbrella concept" (e.g., Verschuere, Brandsen, and Pestoff 2012; Jo and Nabatchi 2016), and still others have suggested widening coproduction to include co-planning, co-design, co-delivery, co-monitoring, and co-evaluation (e.g., Bovaird 2007; Sicilia et al. 2016). Either through contraction or expansion, all of these approaches seek to define coproduction in ways that allow for the categorization of different kinds of activities, the connection of common points

of reference, and the comparison of research findings.

In this article, we take a mixed approach to defining coproduction. Specifically, we define coproduction as an umbrella concept that captures a wide variety of activities that can occur in any phase of the public service cycle and in which state actors and lay actors work together to produce benefits. This definition is sufficiently broad to maintain the generalizability of the concept and ensure its usefulness to a range of scholars and situations, but also allows for the specificity scholars need to categorize activities, position and compare findings, and ultimately improve research validity. In the next sections of this article, we unpack this definition and introduce a typology of coproduction that distinguishes among activities based on the "co" and the "production" sides of the term.

Creating A Typology for Coproduction

As suggested above, the differences among definitions and applications of coproduction are related to both sides of the term, where the "co" side captures *who* is involved, and the "production" side captures *what* occurs and *when* (Alford 2014; Fugini, Bracci, and Sicilia 2016). We believe that further specification of these two sides may lead to better classification of coproduction activities, and therefore, to better empirical study. To this end, we first identify three levels of coproduction that distinguish among the numbers and types of actors involved on the "co" side of the term. We then identify four phases of the service cycle during which coproduction can be used that distinguish among the timing and nature of the "production" activities. Finally, we merge the levels and phases to create a 3x4 typology of coproduction. We illustrate the levels, phases, and typology as a whole with several examples.

Levels of Coproduction: Who is Involved?

On the "co" side of the term, we find the labelling of professionals as "regular producers" and citizens as "coproducers" to be confusing. Since both sets of actors are

involved in coproduction, both are technically coproducing, and thus, both are technically coproducers. To address this issue, we assert that coproduction involves two types of participants: (1) *state actors* who are (direct or indirect) agents of government serving in a professional capacity (i.e., the "regular producers"), and (2) *lay actors* who are members of the public serving voluntarily as citizens, clients, and/or customers (i.e., the "citizen producers").

Several points about this interpretation of coproduction need clarification. First, the state actors are often, but not always, government employees; they may also be employed by a nongovernmental entity (i.e., a nonprofit, civil society, or private organization). However, the professional must work on behalf of the state – whether directly or indirectly – and be engaged in some kind of state-related or state-sanctioned activity.

Second, the lay actor may serve in multiple roles: (1) as a citizen – a member of a geographical or political community; (2) as a client – a recipient of public services to which s/he is legally entitled and for which s/he is not required to directly pay the providing organization; or (3) as a customer – a recipient of public services for which s/he must directly pay the providing organization. The roles of citizen and client are more common than those of customer, and actors may simultaneously serve in multiple roles, in differing proportions depending on the specific situation. Regardless of the role, the layperson benefits from state services or actions, whether through the political or legal entitlements of citizens and clients or through the payments of customers.

Third, the number of actors, and therefore the size of the coproduction activity, may vary. For example, the state actor and the lay actor may participate in a one-on-one interaction, or multiple state and/or lay actors may participate as individuals or in groups.

Fourth, and as suggested above, the coproduction activity produces some kind of benefit. Expounding on the nature and differences of benefits is beyond the scope of this

article – largely due to the challenge of generating precise language within limited space. For the purposes of this article, we identify two categories: (1) personal benefits that are enjoyed individually, and (2) social benefits that are enjoyed more broadly and communally (cf. Alford 2002, 2014). Sometimes these benefits are independent of each other, sometimes they overlap, and sometimes they have spillover effects (such that personal benefits generate social benefits or vice versa). In most cases, state actors use coproduction to produce a public good in a way that offsets costs; thus, the production of social benefits is the primary driver, though this may be done through the aggregation of personal benefits. Lay actors may be motivated by the realization of either personal or social benefits depending on the situation.

Fifth, this interpretation excludes activities that are not voluntary for the lay person. Although may some disagree (e.g., Alford 2002, 2006, 2009; Osborne, Radnor, and Strokosch 2016), we assert that the voluntary participation of lay actors is a requisite for coproduction (cf. Brudney and England 1983; Parks et al. 1981; Pestoff 2006). Since coproduction requires cooperative action by the lay actor (as opposed to compliant, compelled, or habitual action), the lay actor must consciously and freely decide to give or withhold assistance in the coproduction process (Whitaker 1980). Therefore, coproduction does not include activities where the lay actor is a subject of government, that is, where the lay actor is (or feels) obligated, induced, or coerced to abide by legal or regulatory requirements and/or is sanctioned for non-compliance. Thus, for example, activities such as paying taxes, serving on a jury, using postal codes, and food, drug, building, and other types of health and safety inspections are not coproduction.

Finally, arrangements such as collaborative governance, network governance, public-private partnerships, and other forms of interactive governance are also excluded, as they do not typically involve lay actors (Sancino and Jacklin-Jarvis 2016).

With this interpretation in mind, we reframe and expand Brudney and England's (1983, 63) "three broad types of coproductive activities: individual, group, and collective" as levels of coproduction. For each level, we identify the typical role of lay actors (citizens, clients, customers) and the type of benefits produced (personal benefits, social benefits), and provide examples. We opted to use these levels to identify the "who" of coproduction because neither the roles of lay actors nor the benefits produced are mutually exclusive. We summarize the roles, benefits, and examples in Table 2.

[INSERT TABLE 2 ABOUT HERE]

In *individual coproduction* a state actor and a lay actor work directly with each other. In most cases, the lay actor is a client or a customer, and the coproduction activity leads to "benefits [that] are largely personal" for the lay actor (Brudney and England 1983, 63), though spillover effects may generate social benefits. An example of individual coproduction with a client is when a teacher (the state actor) and a student (the lay actor) work together to develop a personal learning plan (e.g., Wybron and Paget 2016). The student receives direct personal benefits from a clearly articulated learning plan, but there may be social benefits, for example by helping the child to become a better educated, more employable adult. An example of coproduction with a customer is when a community resident (the lay actor) pays to drop off trash at a municipal dump (the state actor) (e.g., Alford 2009). Beyond the personal benefits of refuse disposal, the community experiences spillover social benefits such as cleanliness, resource conservation, and public health.

In *group coproduction* one or more state actors work directly and simultaneously with a specific cluster or category of lay actors who share common characteristics or interests (e.g., users of a specific service, residents of a specific neighborhood, or patients with a

specific disease). In most cases, the lay actors are clients or customers, and the coproduction activity leads to personal benefits for group members. Spillover effects may generate social benefits, however, a number of issues may impede equitable distribution (Brudney and England 1983, citing Rich 1981, Rosentraub and Sharp 1981, Sharp 1980). For example, Needham (2008, 222) flags as problematic the "blurring of boundaries between public and private interests and the shifting of costs and risks on to users" (cf. Bovaird 2007; Needham 2006; Ostrom 1996). Others point to possible inequities in and from coproduction, which may exacerbate the gap between outcomes for advantaged and disadvantaged citizens (e.g., Brudney and England 1983, Jakobsen and Anderson 2013; Levine and Fisher 1984). Thus, this mode of coproduction, which begins to resemble traditional notions of citizen participation, "may require formal coordination mechanisms" (Brudney and England 1983, 64). An example of group coproduction with clients is when school administrators (the state actors) work with parents of autistic children (the lay actors) to improve educational services (e.g., Sicilia et al. 2016). The parents and students receive direct personal benefits from this work, and their efforts may also generate social benefits. An example of group coproduction with customers is when officials from a transportation department (the state actors) work with a group of disabled people (the lay actors) to better understand their public transportation needs (e.g., Copestake et al. 2014). In this case, the participants are likely to experience personal benefits from an improved ridership experience, and spillover effects may create social benefits for the broader community.

In *collective coproduction* one or more state actors (within a single organization or across multiple organizations) work directly and simultaneously with several lay actors to address one or more related issues. Typically, the lay actors are citizens, though their roles as clients and customers also may be apparent (Fotaki 2011). Unlike group coproduction, which targets a specific segment of the population and is aimed at producing personal benefits for

the group members, collective coproduction targets diverse members of the community and is aimed at producing "goods whose benefits may be enjoyed by the entire community" though again, several barriers may impede equitable distribution (Brudney and England 1983, 64). Accordingly, this mode of coproduction, which is most in line with traditional notions of citizen participation, typically requires a great deal of formal coordination. Examples of collective coproduction include when municipal officials (the state actors) work with citizens (the lay actors) to identify budget priorities (e.g., Barbera, Sicilia, and Steccolini 2016; Bovaird 2007), to develop an approach to environmental management (e.g., APSE 2013), or to create health plans in polluted areas (e.g., Van Damme, Caluwaerts, and Brans 2016). In each case, the goal is to produce social benefits for the community, which are likely to create personal benefits for individuals.

Coproduction in Phases of the Service Cycle: What Occurs and When?

Specifying the "production" side of coproduction is perhaps more challenging given the breadth of activities to which the term has been applied. In some contributions, coproduction is limited to situations where a state actor and a lay actor work together on a specific service at the point of delivery (e.g., Alford 2009) – for example in education when a teacher and a student work together to improve learning outcomes. In this formulation, the word 'production' is restricted to its parochial definition. In other contributions, coproduction is applied across the phases of the public service cycle (e.g., Bovaird 2007; Bovaird and Loeffler 2012, 2016; Sicilia et al. 2016). In this formulation, state actors and lay actors can work together at any stage to 'produce' something of value. Thus, the word 'production' is defined broadly and the cooperative activity is denoted by the prefix "co".

We take the second approach, focusing on the use of coproduction during the phases of the service cycle – commissioning, design, delivery, and assessment – and expanding it by discussing the temporal nature of each phase (prospective, concurrent, or retrospective). We

take this approach for three reasons: (1) it helps distinguish *when* the activity is performed, which (2) directly corresponds to the *what* of the activity (i.e., the thing that is produced), and (3) more accurately captures the breadth of existing applications in the literature. In any phase, coproduction may occur at the individual, group, or collective level (an issue addressed later in the article) and can be done synchronously (e.g., in face-to-face settings) or asynchronously (e.g., electronically through information and communication technologies) (e.g., Bopp 2000; Clark, Brudney, and Jang 2013; Meijer 2011, 2014). Table 3 identifies the temporal nature of each service cycle phase and provides examples (additional examples can be found at http://www.govint.org).

[INSERT TABLE 3 ABOUT HERE]

Co-commissioning refers to activities aimed at strategically identifying and prioritizing needed public services, outcomes, and users. Although the term commissioning is beset with some contention, we use it here to mean "what needs to be delivered, to whom, and to achieve what outcomes" (Bovaird and Loeffler 2012, 6). Traditionally, commissioning is seen as a "core public sector task [to be] undertaken by politicians and top managers" (Bovaird and Loeffler 2012, 6). However, in coproduction, the commissioning of services is done by state and lay actors working together, an approach also recognized in the public participation literature (e.g., Nabatchi and Leighninger 2015). Co-commissioning is generally prospective in nature – it is oriented toward the future and concerned with activities that may take place at a later date. Other terms, such as co-prioritization and co-financing, are sometimes used either as synonyms for co-commissioning or to demarcate specific activities within co-commissioning. Examples of co-commissioning include when public officials work with citizens to set budget priorities for discretionary funds (e.g., Barbera, Sicilia, and

Steccolini 2016; Bovaird 2007), when police departments work with residents to identify priority or target areas for community safety efforts and police patrols (e.g., Layne 1989), and when school officials work with parent groups to determine educational priorities (e.g., Bifulco and Ladd 2006; Birchall and Simmons 2004).

Co-design refers to activities that incorporate "the experience of users and their communities" into the creation, planning, or arrangements of public services (Bovaird and Loeffler 2012, 9). This "outside-in" perspective enables state actors to better understand how public services could be designed to be of greatest use and benefit for individuals and communities. In many ways, this approach mirrors traditional notions of direct citizen participation (e.g., Nabatchi and Amsler 2014; Nabatchi and Leighninger 2015). Co-design may be prospective (i.e., future-oriented) or concurrent (i.e., concerned with what presently exists or is occurring). Examples include when state and lay actors work together to reshape the application process for public benefits or to revamp a website for adult care services, or when social service professionals work with elderly populations to create opportunities for 'interdependent' living (e.g., Bovaird and Loeffler 2102; Willis and Bovaird 2012).

Co-delivery refers to joint activities between state and lay actors that are used to directly provide public services and/or to improve the provision of public services (Alford and O'Flynn 2012; Thomas 2013a, 2013b). Co-delivery, which is most in line with the traditional view of coproduction, is sometimes considered intrinsic to the provision of certain services (such as healthcare and education) and often centers on quality and efficiency improvements (Osborne, Radnor, and Strokosch 2016; Osborne and Strokosch 2013). Co-delivery is generally concurrent in nature – it is focused on presently-provided services. Examples include when parents work with teachers and schools to provide in-class or extracurricular activities (e.g., Pestoff 2006), when students assist in organizing university welcome days (e.g., Brandsen and Honingh 2016), and when young people work as peer

educators in schools (e.g., Bovaird and Loeffler 2012; see also http://www.govint.org/good-practice/case-studies/london-borough-of-lambeth/).

Co-assessment focuses on monitoring and evaluating public services. Traditionally, performance-related activities are undertaken by public officials or external consultants; however, in coproduction, state and lay actors work together to assess service quality, problems, and/or areas for improvement (Bovaird and Loeffler 2012). Co-assessment is generally retrospective in nature – it is oriented toward the past and concerned with activities that have already taken place. However, the results of co-assessment exercises can be used prospectively to re-think or improve services. Examples include when residents of social housing complexes serve as "tenant inspection advisors" for government (e.g., Bovaird and Loeffler 2012), when state actors and residents with dementia assess the ease of navigation in neighborhoods (e.g., Brown, Loeffler, and Christie 2016), and when parents work with special education auditors to assess services for their children (e.g., Sicilia et al. 2016).

A 3x4 Typology of Coproduction

When the three levels (individual, group, collective) and the four phases of the service cycle (commissioning, design, delivery, assessment) are merged, they create a 3x4 matrix that lays out twelve 'types' of coproduction. The variations among these twelve types are related to, but also reach beyond, the levels and phases of coproduction; they also vary by characteristics related to the *who*, *when*, and *what* of coproduction.

First, the types vary by *who* is involved, including the number of participants and who they represent. Lay actors may participate in coproduction as citizens, clients, or customers (or in some combination of these roles with proportions that differ according to the situation). They participate alone in individual coproduction, as a specified segment of the population in group coproduction, and as diverse representatives of the larger community in collective coproduction. The number and nature of state actors may also vary. Individual coproduction

is more likely to involve only one state actor from one agency or organization, whereas collective coproduction is more likely to include several state actors from multiple agencies and organizations.

Second, the types vary by *when* they occur. This includes the phase of the service cycle in which coproduction is used (commissioning, designing, delivery, assessment), as well as its temporal orientation (prospective, concurrent, or retrospective) and whether it incorporates synchronous and/or asynchronous activities.

Finally, the types vary by *what* they produce. On one hand, this relates to the nature and distribution of benefits. For example, individual coproduction generates personal benefits and collective coproduction generates social benefits. Sometimes the personal and social benefits are independent, but often they overlap or create spillover effects. On the other, this relates to what is created through coproduction. For example, a co-commissioning process would produce a list of priorities or needs; a co-design process would produce a plan or arrangement; a co-delivery process would produce a good or service; and a co-assessment process would produce a monitoring protocol or evaluation. In Table 4, we clarify these and others differences with illustrative examples of coproduction across the levels and phases.

Of course, additional work is needed to flesh out the typology. But, as Brudney and England (1983, 61) so eloquently state, the issue is to generate "interpretations of coproduction" that "are *useful* … [and] relevant both to policy makers interested in implementing or evaluating coproduction programs and to academics concerned with operationalizing the concept in actual service delivery situations." This typology is a step in that direction. To support this claim, we conclude with a discussion of its implications for research and practice.

[INSERT TABLE 4 ABOUT HERE]

Implications for Research and Practice

Although the concept of coproduction is increasingly popular, the lack of conceptual and definitional clarity is impeding scholarly research and limiting its development in practice. To address these issues, we clarified the definition of coproduction and created a typology based on the who, when, and what of coproduction.

Specifically, we defined coproduction as an umbrella term that captures a wide variety of activities that can occur in any phase of the public service cycle and in which state and lay actors work together to produce benefits. We noted that (1) state actors need not be government employees, but must work directly or indirectly on behalf of the state on a state-related or state-sanctioned activity, and (2) lay actors may serve separately or simultaneously (in differing proportions depending on the situation) as citizens, clients, and/or customers. We also explained that coproduction (3) can vary by the number of actors and size, (4) produce personal and/or social benefits that may be independent, overlapping, or have spillover effects, (5) must be voluntary for lay actors, and (6) excludes inter-organizational arrangements that do not involve lay actors. This definition erects boundaries around coproduction, while maintaining generalizability and allowing for specification based the "co" (who) and the "production" (when and what) sides of the term.

On the "co" side, we specified three levels of coproduction, the typical role of lay actors, and the type of benefits produced. *Individual coproduction* refers to activities where a state actor works directly with a lay actor (typically a client or customer) who receives personal benefits from the effort, though spillover social benefits are possible. *Group coproduction* refers to activities where one or more state actors work directly and simultaneously with a number of lay actors in a specific population category (typically clients or customers) who receive personal benefits with potential spillover social benefits.

Collective coproduction refers to activities in which one or more state actors (from one or more organizations) work directly and simultaneously with several lay actors from the community (typically citizens) to generate social benefits, though participants may also experience personal benefits.

On the "production" side, we specified four service cycle phases and their temporal nature, noting that activities may be synchronous or asynchronous. *Co-commissioning* refers to activities used prospectively to decide on or prioritize needed public services, outcomes, and users. *Co-design* refers to activities used to create, plan for, or arrange prospective or concurrent public services. *Co-delivery* refers to activities used to provide or improve the provision of concurrent public services. *Co-assessment* refers to activities used to retrospectively assess public service quality or outcomes. We then combined these three levels and four phases to create a typology of twelve types of coproduction.

This typology has several implications for scholarship. First, the typology provides terminological clarity by acknowledging coproduction as an umbrella concept and by offering vocabulary for defining and describing its variations. Explicit use of this terminology will help scholars better describe coproduction in the future and avoid the confusion and ambiguity of the past.

Second, the typology sets the stage for stronger empirical research on coproduction. Specifically, distinguishing among variations in coproduction will ease the challenges associated with explanatory analyses and comparative research. For example, scholars could use the cells in the typology to map cases of coproduction in the public administration literature, with the goals of determining which types have received more (and less) attention and identifying areas where additional research is needed. Scholars can also use the typology to identify and examine design and outcome differences among the types of coproduction. For example, it would be useful to know what legal and organizational factors trigger the use

of different types of coproduction and how those factors relate to design, implementation, evaluation, and ultimately, outcomes. It would also be interesting to investigate whether and how the motivations and incentives of state and lay actors vary by coproduction level or by phase of the service cycle. Similarly, scholars could examine the managerial, leadership, and engagement styles of state actors, their goals for coproduction, and their satisfaction with various processes, or they could explore differences in techniques related to participant recruitment, preparation, interactions, and satisfaction. They could also examine the ways in which participation in one form of coproduction influences the willingness of state and lay actors to engage in other forms of coproduction (see for example, Bovaird et al. 2015). Studies on these and other topics could be done at a meta-level or disaggregated by policy sector or some other criterion.

Third, and in a similar vein, the typology provides a foundation for the development of a framework for assessing coproductive performance. The typology implicitly suggests the need for multidimensional performance assessments that account for the numerous actors involved in and affected by coproduction (Andersen, Boesen, and Pedersen 2016). At least four perspectives are important, including those of the (1) state actors, (2) organizations represented by the state actors, (3) lay actors engaged in the process, and (4) potential beneficiaries not involved in the process. For each perspective, scholars and practitioners should work together to develop indicators that are generalizable across the types of coproduction and that are specific to each type (for discussions of scholar-practitioner collaborations, see Buick et al. 2016; Orr and Bennett 2012). Such work would certainly contribute to knowledge about what works, when, where, why, and how.

Finally, the typology and the research avenues suggested above pave the way not only for the application of high-quality explanatory and comparative research and the use of alternative and innovative research methods (e.g., Riccucci, Van Ryzin, and Li 2016), but

also for the consistent accumulation of knowledge on coproduction. As the empirical research base for coproduction grows, so too will the possibilities for theory building. Thus, these and other research efforts could help push the field of public administration toward the conceptual and analytical clarity on coproduction found in the business literature (see Agrawal 2013).

The typology also has implications for practice. First, it provides policy makers and public managers with a tool to enhance decision-making about coproduction. Specifically, the typology enables practitioners to identify the type of coproduction best aligned with their goals and purposes, which in turn can help them determine who to involve in what activity and when. Moreover, because the typology frames coproduction as a dynamic and potentially longitudinal experience, it may enable practitioners to imagine (and perhaps use) coproduction across the public service cycle, from commissioning to assessment.

Second, because the typology provides language for describing and explaining the variations in coproduction, it facilitates the examination and comparison of cases and experiences and may improve evaluation and transparency. Moreover, it enhances top-down, the bottom-up, and the inside-out communication. For example, the ability to clearly define different types of coproduction and articulate their potential use and impacts can assist organizational leaders with encouraging front-line practitioners to use coproduction. Conversely, it can assist front-line practitioners with communicating up the organizational chain to request and justify the financial, human, technological, and other resources necessary for supporting coproduction. It can also assist practitioners with outward communication, for example through the development of recruitment language and tactics to attract, engage, and retain participants.

The typology offers several other potential avenues for research and practice, but one final implication should be noted. Given fiscal constraints, organizational imperatives, and citizen expectations, the use of coproduction is likely to continuing growing in the near

future. Thus, it imperative that scholars and practitioners develop better ways to explain and study its use and impacts. Failure to do so will perpetuate ambiguity, further muddy a complex phenomenon, and undermine efforts to better engage citizens and improve public services.

NOTES

1 The marketing and business literatures are rife with articles examining the role of customers in the value chain, defined as the processes or activities by which a company adds value to an article, including production, marketing, and the provision of after-sales service (for a review of this history, see Ramirez 2009). Coproduction is now used in the business sector in the purchasing process, in the innovation, design, and (beta) testing of goods, and in the marketing of products (e.g., Lusch and Vargo 2015). In these and other business contexts, the definition and boundaries of coproduction are clearer and better established than in the public sector (Agrawal 2013).

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Table 1: A Sampling of Coproduction Definitions

Author	Definition
Whitaker (1980)	"Three broad types of activities constitute coproduction: (1) citizens requesting assistance from public agents; (2) citizens providing assistance to public agents; and (3) citizens and agents interacting to adjust each other's service expectations and actions" (p. 242).
Brudney and England (1983)	"Coproduction consists of citizen involvement or participation (rather than bureaucratic responsiveness) in the delivery of urban services. … Coproduction stems from voluntary cooperation on the part of citizens (rather than compliance with laws or city ordinances) and involves active (rather than passive) behaviors" (p. 63).
Levine and Fisher (1984)	"The joint provision of public services by public agencies and service consumers" (p. 181).
Ostrom (1996)	"The process through which inputs used to provide a good or service are contributed by individuals who are not ''in'' the same organization" (p. 1073).
Alford (1998)	"The involvement of citizens, clients, consumers, volunteers and/or community organizations in *producing* public services as well as consuming or otherwise benefiting from them" (p. 128).
Joshi and Moore (2006)	"Institutionalized co-production is the provision of public services (broadly defined, to include regulation) through a regular long-term relationship between state agencies and organized groups of citizens, where both make substantial resource contributions" (p. 40).
Bovaird (2007)	"The provision of services through regular, long-term relationships between professionalized service providers (in any sector) and service users or other members of the community, where all parties make substantial resource contributions" (p. 847).
Pestoff (2009)	"Co-production provides a model for the mix of both public service agents and citizens who contribute to the provision of a public service" (p.197).
Boyle and Harris (2009)	"Co-production means delivering public services in an equal and reciprocal relationship between professionals, people using services, their families and their neighbors" (p. 11).
Alford (2009)	"Co-production is any active behavior by anyone outside the government agency which: is conjoint with agency production or is independent of it but prompted by some action of the agency; is at least partly voluntary; and either intentionally creates private and/or public value, in the form of either outputs or outcomes" (p. 23).
Brandsen and Honingh (2016)	"Coproduction is a relationship between a paid employee of an organization and (groups of) individual citizens that requires a direct and active contribution from these citizens to the work of the organization" (p. 431).
Bovaird and Loeffler (2016)	"Co-production is "public services and citizens making better use of each other's assets and resources to achieve better outcomes or improved efficiency" (p. 1006).
Surva, Tõnurist, and Lember (2016)	"A way to involve citizens as co-designers and co-implementers of services that are usually delivered by public organizations" (p. 1031).

Table 2: Levels of Coproduction

Level of Coproduction	Role of Lay Actors	Types of Benefits	Examples
Individual	Client, Customer	Personal Benefits (spillover may generate social benefits)	• A teacher works with a student in one-on-one sessions to set personal learning goals and targets (e.g., Wybron and Paget 2016) • A physician and a patient work together to develop a personal treatment plan (e.g., Realpe and Wallace 2010) • A lay person pays to drop off trash at a municipal dump (e.g., Alford 2009)
Group	Clients, Customers	Personal Benefits Social Benefits	• One or more school administrators work with parents of autistic children to improve educational services (e.g., Sicilia et al. 2016) • Mental health providers work with patients sharing similar diagnoses to improve services (e.g., Nesta 2012) • Representatives from the regional transportation department work with disabled people to understand their public transportation needs (e.g., Copestake et al. 2014)
Collective	Citizens	Social Benefits (spillover may generate personal benefits)	• Municipal officials work with community members to identify budget priorities (e.g., Bovaird 2007; Barbera et al. 2016) • A municipal council works with community residents to ensure a coherent approach to environmental management (e.g., APSE 2013) • A city government works with residents to develop health plans in polluted areas (e.g., Van Damme et al. 2016)

Table 3: Coproduction in Phases of the Service Cycle

Phase of the Service Cycle	Temporal Nature	Examples
Co-Commissioning	Prospective	• Public officials and citizens work together to set budget priorities for a community (e.g., Bovaird 2007; Barbera et al. 2016) • Police departments work with residents to identify priority or target areas for community safety efforts and police patrols (e.g., Layne 1989) • School officials work with parent groups to determine educational priorities (e.g., Birchall and Simmons 2004; Bifulco and Ladd 2006)
Co-Designing	Prospective or Concurrent	• State and lay actors work together to redesign the application process for public benefits (e.g., Bovaird and Loeffler 2012) • State and lay actors work together to re-design a website for adult care services (e.g., Bovaird and Loeffler 2012) • Social workers work directly with the elderly to create opportunities for interdependent living (e.g., Bovaird and Loeffler 2012; Willis and Bovaird 2102)
Co-Delivery	Concurrent	• Parents work with teachers and schools to provide in-class or extracurricular activities for students (e.g., Pestoff 2006) • Students assist the university in organizing welcome days (e.g., Brandsen and Honingh 2016) • A youth council trains young people as peer educators who then provide sex education sessions in schools (e.g., Bovaird and Loeffler 2012; see also http://www.govint.org/good-practice/case-studies/london-borough-of-lambeth/)
Co-Assessment	Retrospective (sometimes with prospective elements)	• Residents of social housing complexes work for the Audit Commission as "tenant inspection advisors" (e.g., Bovaird and Loeffler 2012) • State actors and residents with dementia walk through neighborhoods to assess the ease of navigation (e.g., Brown et al. 2016) • Parents work with special education auditors to assess services provided to their autistic children (e.g., Sicilia et al. 2016)

Table 4: A Typology of Coproduction with Examples

		Phase of the Service Cycle			
		Co-Commissioning	Co-Design	Co-Delivery	Co-Assessment
Level of Coproduction	Individual	A doctor and a patient work together to identify and prioritize health problems and needs.	A doctor and a patient work together to develop a strategy or plan for meeting health needs.	A doctor and a patient work together to implement dietary, exercise, smoking cessation, or other activities to meet health needs.	A doctor and a patient evaluate the efficacy of the plan and the degree of health improvement.
	Group	School officials and teachers work with a group of parents who have children with special needs to identify challenges and opportunities in education services.	School officials and teachers work with a group of parents who have children with special needs to design educational activities based on parental experience and best-practice.	School officials and teachers work with a group of parents who have children with special needs to provide in-class and extra-curricular educational activities.	School officials and teachers work with a group of parents that have children with special needs to evaluate the provision of services.
	Collective	A local parks department convenes citizens to identify and prioritize desired recreational opportunities in a community.	A local parks department works with citizens to design a series of bicycle routes throughout the community.	A local parks department works with citizens to construct and maintain bicycle routes throughout the community.	A local parks department works with citizens to assess the safety and quality of bicycle routes throughout the community.