

Co-creation and Co-production in Social Innovation: A Systematic Review and Future Research Agenda

William Voorberg, Victor Bekkers & Lars Tummers

To be presented at: EGPA – conference, Edinburgh 11 september – 13 september 2013

To be cited as: Voorberg, W., Bekkers, V. & Tummers, L. (forthcoming) Co-creation and Co-production in Social Innovation: A Systematic Review and Future Research Agenda

Corresponding author:

William Voorberg

voorberg@fsw.eur.nl

Department of Public Administration

Erasmus University Rotterdam

PO Box 1738

3000 DR Rotterdam

voorberg@fsw.eur.nl

The research leading to these results has received funding from the European Union Seventh Framework Programme under grant agreement No. 320090 (Project Learning from Innovation in Public Sector Environments, LIPSE), Socioeconomic Sciences and Humanities. LIPSE is a research program under the European Commission's 7th Framework Programme as a Small or Medium-Scale Focused Research Project (2011-2014). The project focusses on studying social innovations in the public sector (www.lipse.org).

Abstract

At the core of the concept of social innovation lies the active involvement of citizens into public service delivery. This involvement is often referred to as 'co-creation' or 'co-production'. The purpose of this review is to provide an overview about the existing knowledge concerning the a) objectives, types and definitions of co-creation/co-production, b) the influential factors to co-creation and co-production processes and c) the outcomes of these processes. Furthermore we aim to identify the research gaps in this existing knowledge about co-creation and co-production in the public sector.

This article reviews 122 academic records which are selected on their eligibility, which involves the participation of citizens in the design or implementation of public service delivery; the word 'co-creation' or 'co-production' must appear in the title and/or abstract of the record; the record should contain empirical data. Furthermore we analyzed peer-reviewed records from the period of 1987-2013 and the records needed to be written in English.

As our review shows, co-creation and co-production are defined often. Both involves the active involvement of citizens in public service delivery by creating sustainable partnerships with citizens. In the literature we can make a distinction between three types of involvement: 1) citizens as co-implementer of public policy, 2) citizens as co-designer and 3) citizens as co-initiator. The first level is represented the most frequent.

Furthermore, in most records, specific objectives what the involvement must achieve are often not formulated. It appeared that most studies are aimed at the identification of influential factors. These factors can be identified on the organizational side (for instance the compatibility of public organizations, the attitude of public officials or the administrative culture) or on the citizen side (for instance personal characteristics, awareness of citizens and social capital). As a result, systematically gained empirical evidence to the outcomes of co-creation/co-production processes is often lacking. We conclude that co-creation and co-production has primarily symbolic value and seems to be considered as values in itself. Further research is required in order to examine what kind of specific outcomes co-creation and co-production processes have and under which circumstances these outcomes occur. A detailed research agenda is shown, involving methodological, theoretical and empirical lacuna's.

Keywords: co-creation; co-production; citizens; social innovation; systematic review

1 Introduction

Social innovation and co-creation are ‘magic concepts’ (key terms which seem to be pervasive among both academics and practitioners, Pollitt & Hupe, 2011; p. 642), which during the last years have been embraced as new modernization or reform strategies for the public sector. For instance, the British prime-minister Cameron incorporated social innovation in his view on the so-called ‘Big Society’, in which he embraces the idea of social entrepreneurship and social innovation as an alternative for traditional governing. To his consideration, local communities need to have more administrative capabilities and people needs to be encouraged to play an active role in these communities in order to set up co-operations, charities, mutual and other social enterprises, in order to deal with the local and concrete needs which citizens encounter (The Guardian, 2010). Also, the European Commission has embraced social innovation as a relevant topic on her reform agenda. On their website they state that social innovation is “*about new ideas that work to address unmet needs. We simply describe it as innovations that are both social in their ends and in their means*” (European Commission, 2013). Social innovation seems to be an inspiring concept because it stimulates people, politicians and policy makers. It implies processes of exploration and implementation of new ideas about how a society deals, as political community, with a number of vital challenges; like the growing ageing of the population, the budgetary crises, the quality of our educational system, or the regeneration of socially and economically deprived cities and regions (Mulgan, 2009).

However, social innovation is weakly conceptualized, due to the dominance of grey, policy-oriented literature (Cels et al. 2012; Bates 2012; Mair, 2010; Mulgan, 2009; Goldenberg et al, 2009; Howalt & Schwarz, 2010). Though four elements seem to be reoccurring:

First, social innovation aims to produce long lasting outcomes that are relevant for (parts of) the society, given the needs and challenges of this (groups within) society. In doing so, it is to look beyond technological innovations and to see how social innovations create and contribute to public values that are considered to be important (Howalt & Schwarz, 2010; Hartely, 2005; Moore,1995).

Second, it fundamentally changes the social relationships and the ‘playing rules’ between the involved stakeholders. In doing so a transformative discontinuity with existing practices is pursued (Osborne & Brown, 2011), which is in general the essence of innovation. This involves a process of ‘roundaboutness’ (Majone, 1998; p. 97) or ‘institutional conversion’ (Thelen 2002; p. 224). In doing so social innovation tries to act as a ‘game changer’, thereby breaking through ‘path dependencies’. To deal with these pressing new demands and challenges, the governance capacity of a society is enhanced (European Commission, 2011; p. 33).

Third, to produce outcomes that really matter, it is important that relevant stakeholders are involved in the design, implementation or adoption of an innovation. Hence, social innovation also refers to the idea of participation of and collaboration with relevant stakeholders that cross organizational boundaries and jurisdictions (Bason, 2010; Sørensen & Torfing, 2011). This corresponds with the notion of ‘open innovation’ (Chesbrough, 2003, 2006; Von Hippel, 2005, 2007). Relevant stakeholders should be able to bring in their knowledge, information, skills, experiences and resources. As a result the produced outcomes of innovation processes are more relevant to them.

This presupposes that these stakeholders, given their needs, are able to co-create innovations that really matter to them. Moreover, special attention should be paid to these needs of end-users.

Last, social innovation refers not only to the production of new outcomes but also to the process of innovation. This process can be seen as a learning and reflection process (Albury, 2005). This is not an isolated instance, which can be exclusively attributed to capacities and capabilities of a specific person (the entrepreneur as Schumpeter [1942] presumed). Neither is it a systematic process of research and development that is been institutionalized in a laboratory or a R & D department (like Drucker, 1985 assumed). Innovation processes require the ability and willingness of the relevant actors to cooperate and to link and share ideas, as well as to exchange vital resources, such as staff. It refers to the rather free and interactive exchanges of knowledge, information and experiences, in which new ideas and concepts are discussed in intra- and inter-organizational networks (Chesbrough, 2003, 2006; Von Hippel, 1976, 2005, 2007). However, this open innovation process is an embedded process, which takes place in a specific local and institutional context (Bekkers, Edelenbos & Steijn, 2011). This implies that it is important to recognize the specific environment in which innovation processes take place. That is why Castells (1996:3) mentions 'innovation milieus'. It can, thus, be argued that innovation processes should be studied from an ecological perspective (Bekkers & Homburg, 2007; Bason, 2010; Osborne & Brown, 2011).

So, to put it differently, social innovation can be considered as a process of *co-creation*. Thereby referring to the involvement of stakeholders, in particular end-users in the design and development of new goods and services (Von Hippel, 2007). In the private sector, co-creation can be understood in relation to two simultaneous trends. First, corporations are challenged to produce their goods more and more efficiently, thereby looking for opportunities to create efficiency gains outside the borders of the own organization. In this, end-users are defined as possible co-producers that take over specific activities in the production chain (Prahalad & Ramaswamy, 2000; Vargo & Lusch, 2004). Second, end-users may also be perceived as co-creators, whose experiences and needs can be of added value for a company to improve, redesign or invent new products and services (Vargo & Lusch, 2004). Therefore, customers are not only an important source of information, they are also an important source of competence, given the fact that customers learn while using a product or service (Prahalad & Ramaswamy, 2000). Research in the private sector has shown that the level of co-creation positively influences customer satisfaction, customer loyalty, lowering of service expenditures (costs, knowledge) as well competitive advantage (Griseaman & Stokburger-Sauer 2012; Chathoth et al., 2012; Barrutia & Echebarria, 2012[1]).

But, since social innovation and co-creation are being incorporated in the public sector, it is important to note, that in contrast to the private sector, in the public sector an important purpose behind social innovation is the involvement of service-users as such, in order to create new public services. This fundamentally challenges existing, very often supply-based services. According to the European Commission (2011; p. 30) "social innovation mobilizes each citizen to become an active part of the innovation process". But, when citizen participation is considered as such a necessary condition, what do we know about the conditions under which citizens are prepared to embark on the 'social innovation journey' (cf. Van de Ven et al., 2008)? In order to address this question, we conducted a systematic review of the academic literature of public co-creation with citizens. The public sector has a specific history, starting in especially the 1980s, with involving citizens in policy making, policy implementation and service delivery processes. In this type of literature the concept

of *co-production* seems to be recurring (e.g. Verschuere, Brandsen & Pestoff 2012; Brandsen & Pestoff, 2006; Alford, 1998; Ostrom, 1996). Lusch & Vargo (2006) described co-creation and co-production as two aspects of a more service oriented production process. Following that notion, some authors see the both concepts as interchangeable (e.g. Rosentraub & Warren, 1987; Gebauer et al. 2010). Other records define co-creation as such that there is no distinction with the used definitions on co-production (see also section 4.2). Hence, results from the co-production literature can also help to understand how valid the co-creation assumptions are behind many social innovation practices. Therefore our systematic review not only includes the literature on public co-creation, but also public co-production (see for an a recent overview Verschuere, Pestoff and Brandsen, 2012).

Our review adds to the literature in two ways. Firstly, we take into account both the co-creation and co-production literature. Our article aims to provide an overview regarding the role of citizens in the co-creation/co-production processes in social innovation. Secondly, we base this review on systematic review guidelines, which comprises several explicit and reproducible steps, such as identifying all likely relevant publications, selecting eligible studies, extracting data from eligible and high quality studies and synthesizing the results (Liberati et al., 2009). Systematic reviews differ from more traditional literature overviews as it is a replicable and transparent process (Trenfield et al. 2003). When reporting this systematic review, we will adhere as much as possible to the widely used 'Preferred Reporting Items for Systematic Reviews and Meta-Analyses' (The PRISMA Statement), ensuring transparent and complete reporting (Moher et al., 2009; Liberati et al., 2009).

We propose to answer three related questions:

- 1) *What are the objectives of co-creation and co-production with citizens and what are relevant types of co-creation?*
- 2) *Which factors influence co-creation and co-production processes with citizens?*
- 3) *What are the outcomes of co-creation and co-production processes with citizens?*

In the following section we will assess the methodology used to conduct the review. Here, we will present our eligibility criteria, the kind of databases we examined and the used search strategies. Hereafter we present the results of our review. We conclude our analysis with some reflections on co-creation and co-production in social innovation processes. Based hereon, we present a future research agenda on co-creation and co-production in innovation processes.

2 Research Strategy: conducting a systematic review

2.1 Study and report eligibility

In order to conduct our review, we present in this section the criteria which we have used to identify the eligible records, the search strategy and our selection procedure.

PRISMA distinguishes study eligibility and report eligibility criteria (Liberati et al., 2009). Study eligibility criteria include for instance the type of participants (citizens, public managers, NGOs etc.) and the study design, such as a survey or a case study. Report eligibility criteria include for instance the language in which the report is written and the type of reports included (journal articles, dissertations, congress papers, etcetera). We used the following eligibility criteria:

Study eligibility criteria

- *Type of studies* – Records should deal with co-creation or co-production with citizens during the design or implementation of public service delivery processes. The public sector was defined broadly as “those parts of the economy that are either in state ownership or under contract to the state, plus those parts that are regulated and/or subsidized in the public interest” (Flynn, 2007; p. 1).
- *Topic of co-creation/co-production* – Records should contain the words co-creation or co-production in their title and/or abstract, in order to prevent mix up with related concepts.
- *Type of participants* – The participants in the co-creation process should minimally be citizens – or their representatives – and civil servants.
- *Study design* – Only empirical studies are eligible, as we are interested in the empirical evidence on co-creation during social innovation. All types of designs are included (questionnaire, case study, experiment).

Report eligibility criteria

- *Language* – Only reports written in English were taken into account. For systematic reviews, it is common to only select studies written in English, given the practical difficulties of translation and the replicability of the review (Wilson et al., 2003).
- *Publication status* – We only include international peer-reviewed journal *articles* in our analysis, or *books* from well-established publishers on the field of public administration (such as Routledge, Edward Elgar, Oxford University Press).
- *Year of publication* – We retrieve records which are published between 1987 and 2013. 1987 is chosen as this is the publication year of the seminal work of Von Hippel (1987), on which much of the research on innovation builds. 2013 is chosen since it generates the most present studies on the topic of co-creation or co-production.

2.2 Search strategy

In order to locate studies, four strategies were used. First, studies in electronic databases were searched (1987-2013). This search was applied to Scopus and ISI Web of Knowledge. The last search was run on May 20, 2013. Topics that were used in searching the databases included [citizens], [social innovation], [co-creation], [co-production], [public sector] and [value-creation]. After searching

for the studies, the studies were assessed based on their eligibility. The studies were screened on title and abstract and – when needed – by reading the full text. Second, we conducted the same search to the top tier Public Administration Journals (PA journals). These were Public Management Review; Public Administration; Journal of Public Administration, Research and Theory; Administration and Society and Public Administration Review. Third, we analyzed the books on co-creation or co-production. In ‘Google Books’ we searched for related contributions. Next to the topics mentioned above, we selected books published only by (known) academic publishers. Fourth, we contacted known experts in the field of co-creation/co-production to supplement our literature list with important records (see acknowledgements).

2.3 Record selection

In total we screened 5,38 studies (1,337 on co-creation, 4,021 on co-production). We used Scopus and ISI Web of Knowledge to identify the contributions which matches our eligibility criteria. Since one of our eligibility criteria is *peer reviewed articles*, we needed to avoid a mix-up with ‘grey’ literature. Therefore, Scopus and ISI are more suitable than for instance Google Scholar. After this screening procedure of the articles from these two databases, the Public Administration Journals, the academic books and the consultation of the known experts, this ultimately led to the inclusion of 122 studies (27 on co-creation and 95 on co-production). Our selection process is presented in figure 1.

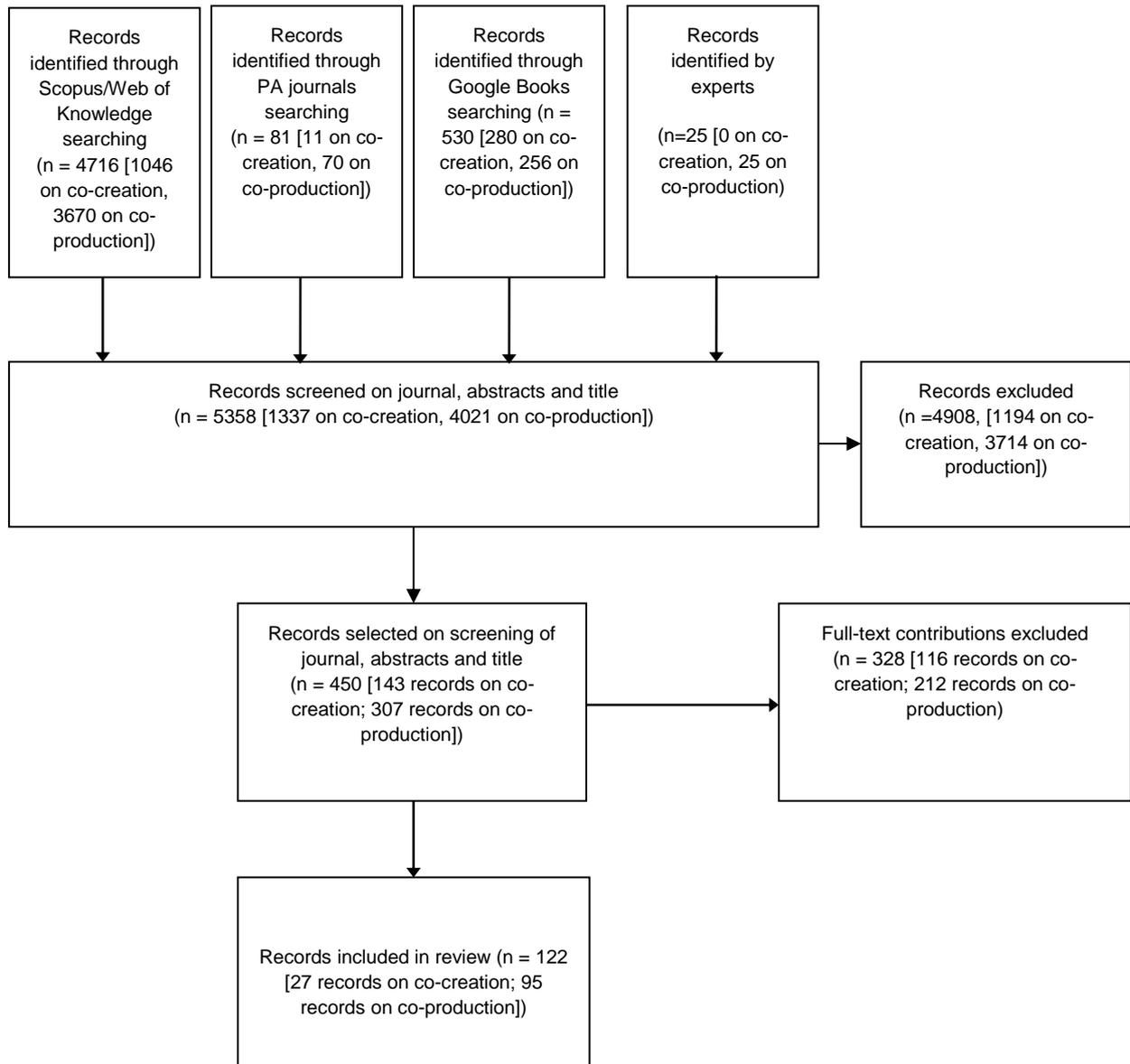


Figure 1: flow-diagram search strategy

In the next section we will describe the results of our systematic review.

3 Results of the systematic review

3.1 Record characteristics

Before discussing the results we will address a number of characteristics of the records that we found.

Diversity in journals and publishers

Articles which are dedicated to co-creation/co-production are published in a large number of different journals. The journals which contained the most studies on co-creation/co-production were Public Management Review (9), International Journal of Voluntary and Nonprofit Organizations (7), World Development (6) and Environment Science & Policy (4). Next to these journals a number of other journals published articles dedicated to co-creation/co-production, but this involved only one or two contributions. These included for instance 'traditional' public administration journals, such as Journal of Public Administration, Research & Theory and Administration & Society, but also a number of other journals such as Criminology & Criminal Justice, Journal of Leisure Research and Health & Place.

When we look to the different publishers, it turns out that well established publishers in the field of public administration have not quite discovered the topic of co-creation/co-production yet. We found only one record on public co-creation published by a well-established publisher (Bason, 2010) and on the topic of co-production, publisher Routledge edited four records, which is the highest number of records edited by one publisher. Combined with our observation that most journals appeared only once in our database and since the journals which have published the most on co-creation/co-production, delivered maximally nine results, we can state that the topic is not extensively studied yet in any academic discipline.

Diversity in studied policy sectors

It appeared that co-creation/co-production has been studied quite extensively in the health care (30 records) and educational (15 records) sector. Next to that a large variety of policy sectors, such as regional media (Kerrigan & Graham, 2010), library services (Somerville & EchoHawk, 2011) and garbage disposal (Benari, 1990) were included in our review. Hence, the conclusion is that co-creation and co-production is a practice that can be found in numerous policy sectors, although health care and education are dominant. This may be explained by the more direct relation between citizens and public officials in these sectors, compared to other sectors such as water governance.

3.2 Definitions, types and objectives

Types of co-creation/co-production

The following table presents the different types of co-creation/co-production that came across during our systematic review. We distinguished three different levels of participation: Level 1 involves the citizen just as co-implementer of the public service. In these examples citizen involvement has already been defined by the public service. For instance Benari (1990) described the need for participation of citizens in garbage disposal services. In order to effectively divide garbage,

assistance of citizens is required to already divide garbage at their homes. Level 2 approaches the citizen as co-designer of how the product or service should be delivered. In most case the initiative for the co-creation lies with the public institution, but citizens decide how the service is being delivered. A typical example of ‘level 2 participation’ is given by Wipf et al. (2009) who described how citizens in France participated in the design and maintaining of outdoor recreation. Citizens got to co-decide how the outdoor recreation was being designed, after the invitation of the municipalities. The third level represents the citizen as initiator and the government as supporting (or frustrating) actor. A remarkable example of this kind of participation is delivered by Rossi (2004) who described that because of civil initiative, the historical center of Naples reopened for the public and the monuments were restored.

In analyzing these different levels of participation we make a distinction between the results of the two different bodies of knowledge that have been analyzed: co-creation and co-production.

Level	Co-creation	Percentage	Co-production	Percentage	Total	Percentage
Co-implementer	15	51%	53	50%	68	50%
Co-designer	7	24%	30	28%	37	27%
Initiator	4	14%	10	9%	14	10%
no specific level	3	11%	14	13%	17	13%
Total	29	100%	107	100%	136	100%

Table 1: types of co-creation/co-production

In some cases the author conducted a multiple case-study in which different types of co-creation/co-production has been studied. As a result the total number of studied levels is higher than the total number of records (a total number of 243).

The most important conclusion that could be drawn from these tables is that the empirical distinction between co-production and co-creation does not so much depend on the type of citizen involvement. In both bodies of literature, the citizen as co-implementer has been studied the most (in both bodies of literature around 50%). Furthermore we see in both bodies of knowledge that the dispersion between the different levels is rather equal. This rejects the assumption (in line with Bason, 2010) that in the co-creation literature the emphasis is more put on the citizen as co-designer, while in the co-production the literature the emphasis lies the citizen as co-implementer (or co-producer). We can conclude that co-creation and co-production are concepts which are closely linked to each other. This will be discussed more specifically in the next subsection. Other peculiar observations are, that a relative large number of authors (13%) did not mention a specific level of co-creation/co-production. This was due to the fact that those cases just described whether co-creation/co-production has occurred. No detailed assessment of the specifics of citizen involvement was then described in the case.

Since the empirical difference between co-creation and co-production seems to be limited, it is important to look whether definitions of co-creation/co-production are also similar. We examine this issue in the next session.

Definitions

In some cases, authors (19%) did not present a specific definition at all. This could have two reasons: 1) in some studies, co-creation with citizens, was not the main subject of study. Some authors present the topic of co-creation merely as an explaining factor to understand policy effectiveness (e.g. Cairns, 2013). 2) The absence of a definition can be related to how the study is conducted. Some studies tried to assess co-creation from a more practical perspective. Then a specific definition was not given.

Then, when we compare the records which did define co-creation/co-production, both co-creation and co-production are to a large extent similarly defined. In both bodies of literature the citizen/end-users is being considered as a valuable *partner* in public service delivery (e.g. Cairns, 2013; Baumer et al. 2011 on co-creation and Meijer, 2012; Bovaird, 2007 on co-production). We have seen some variations to this partnerships, such as the creation of sustainable relations between government and citizens (e.g. Ryan 2012; Joshi & Moore, 2004), the joint responsibility of professionals and citizens for public service delivery (e.g. De Witte & Geys, 2013; Lelieveldt et al. 2009) or simply the involvement of citizens in the process (design, production or delivery) of public service delivery (e.g. Jakobsen, 2013; Davis & Ruddle, 2012; Ostrom, 1996). The only main difference in definitions between co-creation and co-production is that, in line of the work of Vargo & Lusch (2004), in the co-creation literature is sometimes defined as *value* co-creation (e.g. Briscoe et al. 2012; Gebauer et al. 2010).

So, again we can conclude that, to a large extent the concepts of co-creation and co-production can be considered as closely related to each other and even to some extent interchangeable. In the remainder of our analysis we consider co-creation and co-production as comparable and we take the two bodies of literature together.

Objectives

The following table shows the number identified objectives that practices of co-creation/co-production must achieve.

Objectives	N	Percentage
Gaining more effectiveness	22	18%
Gaining more efficiency	13	11%
Gaining customer satisfaction	10	8%
Increasing citizen involvement	8	7%
Other objectives	5	4%
No objective mentioned	64	52%
Total	122	100%

Table 2: Objectives

The most remarkable finding is that most contributions did not mention a specific objective for co-creation and co-production. This review shows that there seems to be an implicit conviction that

involvement of citizens is a virtue in itself, like democracy and transparency. Citizen involvement is considered, in a normative way, as something that is appropriate. This assumption is strengthened by the fact that in eight different studies the purpose of co-creation/co-production is simply the involvement of citizens and democratize public services (e.g. Bifulco & Ladd, 2006; Anderson & Clary 1987; Lelieveldt et al. 2009).

Other peculiarities are that if authors have identified an objective this is mostly related to financial cutbacks or the wish to deliver public services more effectively. Interesting is that these aims seem to be 'timeless'. Since 1987 we found in all decennia at least one record which identified efficiency gains as the dominant purpose for co-creation/co-production. For instance, Anderson & Clary (1987) already mentioned it in 1987, as did Molinas in 1998. Fuglsang identified the same objective in 2008 and more recent contributions of Glynos & Speed (2012) and Evans et al. (2012) mentioned comparable objectives. Next to that, objectives are mentioned, in line with Vargo & Lusch (2004) which are related to making public service delivery more service and customer-oriented. Related objectives are gaining more quality in public services (e.g. Jakobsen et al. 2013; Meijer, 2011; Lam, 1996) and creating more customer satisfaction (e.g. Bowden & D'Allessandro, 2011). Taken these different objectives into consideration, it is interesting what kind of factors the achievement of these objectives influence. We present the factors that we have identified in the literature in the next section.

3.3 Influential factors

Our analysis generated a large variety of influential factors. We categorized these factors inductively into eight different categories (table 3). These factors are sometimes formulated as supporting and sometimes as frustrating. We consider the supporting or frustrating nature of these factors as 'two sides of the same coin'. For instance a number of records mentioned the acceptance of the citizen/patient as key driver for successful establishing co-production relations (e.g. Leone et al. 2012; Ryan, 2012; Corburn, 2007). On the other hand also a number of authors identified an averse attitude towards citizen participation (e.g. Bovaird & Loeffler, 2012; Vamstad 2012; Ackerman, 2004; Kingfisher, 1998). Both factors report about the attitude of public officials to civil involvement.

Influential factor on organizational side	N
Compatibility of public organizations to citizen participation	47
Open attitude towards citizen participation	23
Risk averse administrative culture	19
Presence of clear incentives for co-creation (win/win situation)	14
Influential factors on citizen side	N
Citizen characteristics (skills/Intrinsic values/marital status/family composition/level of education)	10
Customer awareness / feeling of ownership / being part of something	9
Presence of social capital	9
Risk aversion by customers/patients/citizens	2

Table 3: Dominant Influential Factors

The identified influential factors can be distinguished into two different types: factors on the organizational side and factors on the citizen side.

To start with the organizational side, in the first place, most mentioned influential factors are related to the *compatibility* of public organizations to co-creation/co-production. This may refer to the presence or absence of inviting organizational structures and procedure's within the public organization (e.g. Bovaird & Loeffler, 2012; Andrews & Brewer, 2013; Meijer, 2011; Bifulco & Ladd, 2006; Joshi & Moore, 2004) or the presence or absence of a decent infrastructure to communicate with citizens (e.g. Davidsen & Reventlow, 2011; Davis & Ruddle, 2012; Molinas, 1998).

Second, a large number of authors mentioned that the *attitude* of public officials and politicians influence to what extent co-creation/co-production occurs (e.g. Leone et al. 2012; Davis & Ruddle, 2012; Cassia & Magno, 2011; Gebauer et al. 2010). For instance, Ryan (2012) emphasized that the key pre-condition to the co-production of public safety, was the prior acceptance of the legitimate right of the client to be a partner in the process. Formulated as a frustrating factor, Roberts et al. (2012 [2]) mention that many politicians, managers and professionals consider co-production as unreliable. The behavior of citizens is less understood and is considered as more unpredictable. Therefore political and professional reluctance to lose status and control makes that the attitude to embrace co-creation/co-production is often unwilling.

Third, a number of authors have described the administrative culture in which co-creation must be established as risk-averse, conservative and not aimed at incorporating citizens as reliable resource partners (e.g. Talsma & Molenbroek, 2012; Calabro, 2012; Baars, 2010; Mitlin, 2008; Hyde & Davies, 2004). Because of the lack of tradition to consider citizens as associates, rather than service-receivers, makes that there is no 'institutional space' to invite citizens as equals (Maielloa et al. 2013). In relation to the preceding factor 'attitude', the administrative culture can be considered as the environment which shapes the attitudes of public officials.

Fourth, a large number of authors mentioned the importance of having clear incentives for co-creation with citizens. For instance to public officials it is unclear to what extent public services are

being improved by incorporating citizens (e.g. Evans et al. 2012; Joshi & Moore, 2004), or creates budgetary benefits (Abers, 1998), or even increases customer interest (Lam, 1996). Without clarity about the incentives of working with citizens, especially in terms of efficiency and effectiveness administrators do not see the use in it (e.g. Wise et al. 2012; Van Dijk & Nieborg, 2009; Fuglsang, 2008).

Important is to note that all of these mentioned factors are not restricted to a specific policy domain, but involves a large variety of policy sectors. Whether the citizen is regarded as 'co-producer of safety' (Weaver, 2011), 'co-producer of knowledge' (Evans et al. 2012), 'patient' (Lindahl et al. 2011) or 'student' (Díaz-Méndez & Gummesson, 2012), these factors seem to be highly influential.

The described factors so far can all be related to the organizational 'side' of co-creation and co-production. Next to this, some authors identified influential factors on the side of the citizen.

First, it appeared that characteristics of citizens play an important role in whether citizens are *willing* to participate. Wise et al. (2012) showed that intrinsic values such as loyalty, civic duty and the wish to improve the government affects positively the willingness of citizens to participate. This willingness is affected by individual characteristics, such as education and family composition. For instance, Sundeen (1988) showed that the level of education plays an important role in explaining the willingness to co-produce. People who have gone beyond high school are informed better and are more aware of community needs. Furthermore, they are better prepared to articulate their own needs and possess the required administrative skills to participate.

Second, a number of authors have identified the importance of citizens have to be aware of their ability and the possibilities to influence public service delivery. Talsma & Molenbroek (2012) showed from their study to Indian ecotourism, that because of a feeling of being responsible for the wellbeing of eco-tourists (sense of ownership) local people putted a lot of efforts in the improvement of this service. Another example is given by Gebauer et al. (2010) who showed that because of the active involvement of customers in improving the public transport, people had the feeling they could influence the quality of the service. Therefore they improved their level of involvement. So, next to the fact that people needs to be willing to participate they need to be aware how and where they can influence public services.

Third, social capital is needed for participation. Ostrom (1996) mentions that in order to sustainably involve citizens in infrastructure projects in Brazil, not only is activation of citizens required, also social capital needs to be energized in order to fulfill the promises of collective action. Subsequently, Schafft & Brown (2000) showed that the local organization of social capital made that Hungarian Romas were able to initiate a large number of profitable projects for their community. By the enforcement of social capital people looked after each other and had the feeling that they were not alone in their minority-position. So, social capital became an important ingredient in order to create (sustainable) commitment with participation.

All these factors, although presented here in distinct categories are of course related. We present this correlation in figure 3. Within a risk-averse administrative culture, it seems plausible that the attitudes of public officials is averse to citizen participation. Hence public organizations lack the practical organizational tools which are required for active citizen involvement. The outcome of this sequence is that if co-creation processes are not started within the organization, measures are

required in order to establish relationships with citizens. We describe the measures which came across in our review in the next sub-section.

3.4 Identified measures

The measures mentioned in the academic literature can be both aimed at the barriers on the organizational level as on the citizen level. Measures on the organizational side refer for instance to a (top-down) policy which supports co-creation/co-production (e.g. Carr, 2012; Pestoff, 2009). Furthermore, a policy entrepreneur needs to be appointed in order to promote the co-creation/co-production initiative (Farmer, Hill & Munoz, 2012; Briscoe et al. 2012; Fuglsang, 2008). Other authors refer that in order to let co-creation/co-production initiatives succeed, the enhancement of the discretionary autonomy for professionals is required (e.g. De Witte & Geys, 2013; Gill et al. 2011).

On the citizen side measures which are repeatedly mentioned involve the lowering of thresholds for citizens to participate. This can refer to a lowering of the participation costs (Weinberger & Jutting, 2001) by financial support (Pestoff, 2006). Also here an inviting policy is mentioned. In this case, the policy needs to generate a feeling of ownership (e.g. Lindahl et al. 2011; Ostrom 1996). Last, when public organizations or officials approach citizens to participate, they should offer them a plebiscitary choice, instead of asking them about complicated policy issues (Wise et al. 2012).

Peculiar is that these measures are formulated as 'something that the public organization must do'. Whether it refers to an adaption on the organizational side or an attempt to influence citizen behavior, the responsibility lies with the public organization. We conclude therefore, that the success of co-creation/co-production is regarded as a responsibility of the public organization.

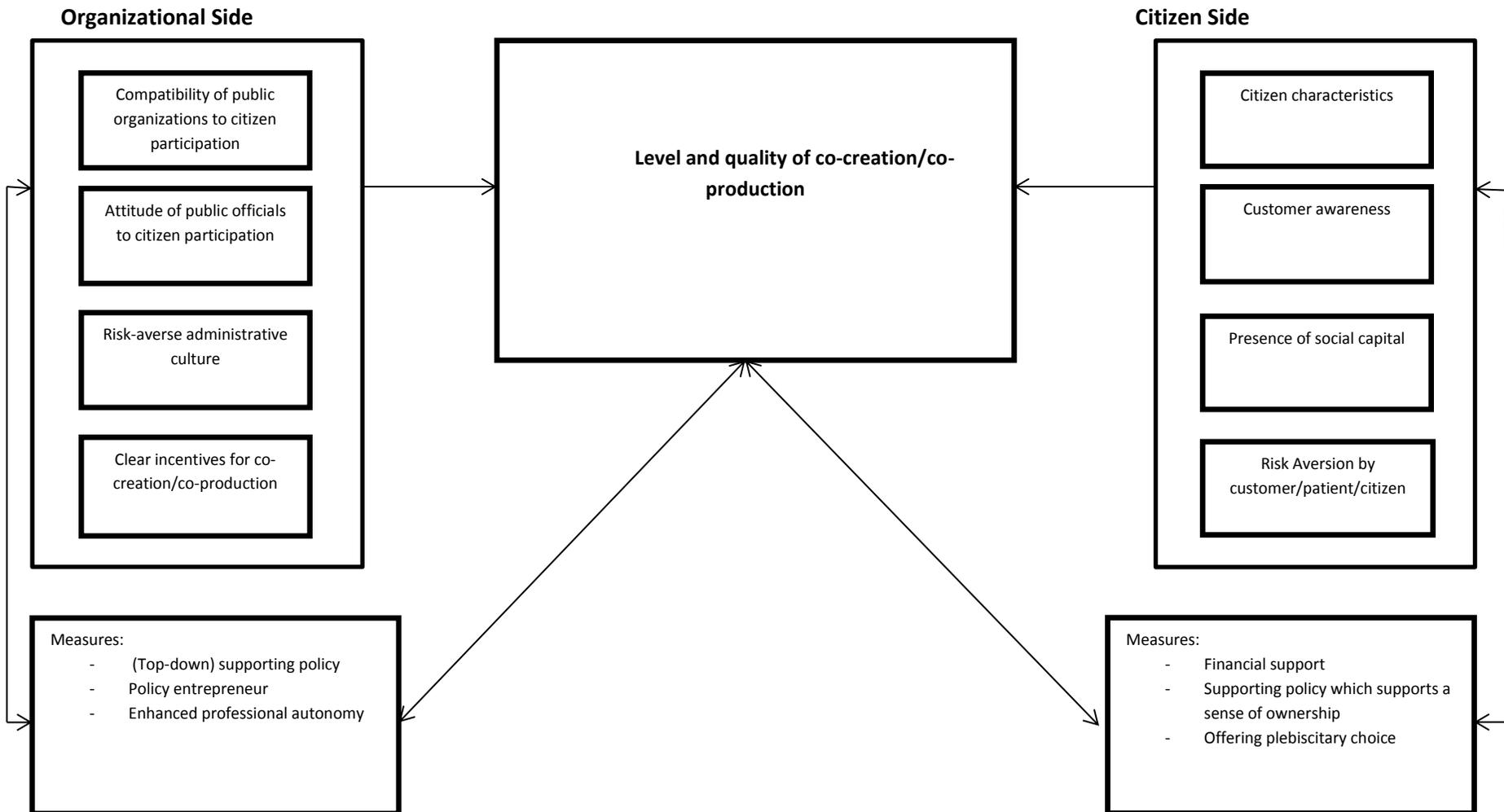


Figure 3: Correlation between identified influential factors

3.5 Outcomes

In this section we analyze what kind of outcomes are presented in the literature. Based on the review, we can distinguish two categories of study outcomes: 1) results formulated as a specific outcome to an objective which co-creation/co-production must obtain (outcomes) and 2) results which are not formulated as a specific outcome of co-creation/co-production (no-outcomes).

To start with the latter (since it is the largest category), we found out that most authors did not present specific outcomes in their study results. We present the different types of ‘no-outcomes’ which came across in our review in table 5.

Type of ‘no-outcome’	N	Percentage
Related to Influential factors	44	45%
Referring to underlying general values	32	33%
Occurrence of co-creation/co-production as such	22	22%
Total	98	100%

Table 5: types of no-outcomes

We can observe some peculiarities. First, most authors dedicated their study at either identifying what kind of factors influence co-creation processes. A remarkable example of such a study is given by Alford (2002) who researched the effects of different incentives (sanctions, material rewards, non-material rewards) to participation behavior of clients of social welfare programs.

Second, another group of authors formulated the outcomes in relative general terms, related to what extent co-creation/co-production enhances the underlying assumptions and general values. An example of this category is delivered by Calabro (2012) who compared privatization processes in Italy and Norway. He concluded that ethical and accountable procedures are sporadic in both countries. Greater levels of citizens participation might contribute to these processes. In this example he studied how co-production might add to values as accountability and democracy.

A last group of authors aimed their studies at the identification of the different types of co-creation or co-production. The object of study becomes then, whether co-creation/co-production has occurred as such. For instance Pestoff (2009) examined what kind of different levels of participation of parents in childcare services can be distinguished in different EU countries. As a result parent participation within different forms of provision, i.e., public, private for-profit and third sector childcare.

A number of authors did describe specific outcomes, related to the co-creation/co-production process. From the 122 selected records, twenty-four authors reported on specific outcomes which co-creation/co-production has achieved. We present the different outcomes in relation to the formulated objectives (table 2) in table 6.

Type of outcome	N	Percentage
Gaining more effectiveness	14	59%
Increasing citizen involvement	6	25%
Gaining more efficiency	1	4%
Gaining customer satisfaction	1	4%
Other objectives	2	8%
Total	24	100%

Table 6: types of outcomes

The table shows that if a concrete outcome was formulated this mostly involves the increase (or decrease) in effectiveness. A resembling example of improved effectiveness is delivered by Leone et al. (2012). They described that because of co-producing health care for heart failure patients, quality of treatments increased. Other concrete positive examples involves the enrichment in knowledge gaining, by including farmers. Baars (2011) shows that by incorporating farmers as specialists on the field of organic farming, knowledge about how to organize and maintain organic farming is easily be gathered. On the other hand Benari (1990) showed that co-production in garbage disposal in Japan did not generate any positive outcomes. People simply did not divide their waste into different garbage types. Furthermore, Meijer (2012) showed that co-production is not to be considered as something that *directly* leads to a more safe neighborhood. Merely should it be regarded as a tool which enriches the information on which police actions are based.

We can conclude from this analysis, that there is not much systematically empirically gained data about the outcomes of co-creation/co-production processes available (see also Alford, 2009). Most studies are dedicated to drivers and barriers and the identification of different co-creation types. Subsequently, based on the outcomes which we have identified, we are not able to conclude whether co-creation/co-production can be considered as beneficial. Last, our observation that co-creation has become a virtue in itself and therefore a (normative) value which must be strived for are strengthened by the number of reported ‘no-outcomes’. This is underlined by the large number of authors who described just the emergence of co-creation/co-production as such and the number of authors who described benefits of co-creation/co-production in terms of civil participation. In this, the suggestion appears, in line with Osborne (1998; p. 35), that the symbolic value of co-creation must be considered as equally significant, as their actuality.

4 Conclusion: Implications for social innovation

Co-creation and co-production in social innovation are considered as promising concepts in order to address the challenges of contemporary Western governments. In this article we conducted a systematic review in order to examine what is being considered in the literature as the objectives of co-creation/co-production, the different types which can be distinguished, the influential factors to it and the outcomes of co-creation/co-production processes. We can draw some conclusions.

4.1 Conclusions of our review to public co-creation/co-production

With regards to how co-creation and co-production are defined we observe that all of them include citizens/end-users/patients as participants to public service delivery. The definitions show some variation. This variation can be distinguished in three types: 1) citizen as co-implementer, 2) citizen as co-designer, 3) citizen as co-initiator. In our analysis it appeared that in both bodies of literature the notion of the citizen as co-implementer is represented the most. Next, in the co-creation literature, citizen involvement is often defined as *value* co-creation. Such a notion is not found in the co-production literature. We conclude that no conceptual distinction is being made between co-creation and co-production, based on the used definitions and types of citizen involvement.

When we look at the objectives that co-creation must achieve, the most remarkable observation is that in more than half of the eligible contributions, no objective is mentioned why public services should make co-creation/co-production efforts. From this we conclude that co-creation has become a value in itself. This is certified by the observation that a large number of authors mentioned the increase of citizen involvement as an objective as such. Other mentioned objectives involved values such as being more effective, gaining more efficiency and create more customer satisfaction. This lack of clear objectives is predominantly caused by the research aim of the study. In most records the objective of the study was to identify influential factors to co-creation/co-production processes (44 records). It becomes then important to examine what kind of influential factors are being identified.

In our review these influential factors can be identified on both the organizational side and the citizen side. On the organization side, most of them involve the 'compatibility of public organizations to citizen participation'. This may refer to a proper communication infrastructure or training facilities for both citizens as public officials. Another important factor is the attitude of administrators and politicians to involve citizens as valuable partners. As it turns out, most authors identified that these attitudes are often not really inviting to citizen involvement. A third important factor seems to be the risk averse culture of public sector organizations. Civil involvement is traditionally regarded as uncontrollable and unreliable. Therefore the administrative environment is not aimed at incorporating citizens in public service delivery.

On the citizen side, influential factors can be identified which influence the willingness to participate. This involves education level, family structure and personal characteristics. Next to this willingness, citizens need to be aware of their ability and possibility of actually influence public services. A last import influential factor seems to be the presence of social capital. Social capital is required in order to create sustainable relations between public organizations and citizens.

It is important to note that these factors are of course related and must be considered as subsequent to each other. If these factors seem to be lacking (on both the organizational and on the citizen side), the responsibility to succeed co-creation/co-production initiatives lies with the public organization. We draw this conclusion, since the additional measures which came across, all refer to 'something that the organization must do'. Examples of these measure are the assignment of a policy entrepreneur, implementing supportive policy or financial support.

In our review, we wanted to know what the outcomes are of co-creation/co-production processes with citizens, given the objectives and influential factors. It appeared, however, that most authors did not mention in very concrete terms what kind of objectives are being achieved by co-creative efforts. This shows that there is not so much systematically gained empirical evidence with regards to the promised benefits of collaboration with citizens. Mentioned outcomes are often circumstantial in their nature or are related to general underlying values, or are just referring to whether co-creation/co-production has occurred. Only twenty-four of the analyzed 122 records described specifically what kind of effects co-creation/co-production had on a specific case. We conclude that the literature so far is not primarily aimed at identifying outcomes of co-creation/co-production processes.

4.2 Limitations of the review

Of course our methods have some limitations. First, we used separate approaches in order to generate a comprehensive overview of the current literature of citizen involvement in public service delivery. However one of our selection criteria was that the record should contain the word 'co-creation' or 'co-production' in the title or abstract. It might be possible that studies are dedicated to the topic of co-creation/co-production but did not mention the words in their abstract or title. As a result some valuable knowledge may still be unexamined.

Second, we already concluded that the concepts of co-creation and co-production are interchangeable to some extent. In the literature about citizen involvement, other bodies of knowledge are available around the concepts of 'interactive governance' (Sørensen & Torfing, 2005), 'new public governance' (Osborne, 2005), 'open innovation' (Chesbrough, 2003) and 'community participation' (Craig & Mayo, 1995). It might be that these concepts refer to the same phenomenon as co-creation or co-production. Given the extent of this study we are not able to draw some conclusions on this.

4.6 Future research agenda

From our review we are able to identify a number of research gaps in the co-creation/co-production literature. These gaps can be formulated along three research lines:

1. Methodological

The now existing literature on co-creation and co-production relies to a great extent on (single)case studies. This is understandable since the assumed importance of contextual factors to co-creation/co-production processes during social innovation. However, generalizing value is limited with these processes. In order to understand public co-creation during social innovation processes, new research approaches are required. First of all, the comparison between cases from different countries can show to what extent national

specifics such as state tradition or governance structure are influential to co-creation processes (see also Verschuere et al. 2012). Second, more quantitative approaches may show to what extent the influential factors derived from the case-studies have general value. For instance, the attitudes of public officials may vary between regions and/or policy domains. Last, in order to really examine what the causal effects of co-creation processes are experiments are required. This should prove whether for instance user satisfaction is improved because of participation in public service design or to other factors.

2. Theoretical

In our review we have considered co-creation and co-production as strongly related. The conceptual lines between other concepts seems to be thin. Conceptual clearance seems to be required. Given the rather large number of studies conducted to cases in which the citizen act as co-implementer, we suggest that we need to have better understanding of the effects of citizen involvement as co-designer or initiator.

In addition to the first point, as we have shown, the current literature is aimed at identifying what kind of co-creation/co-production types can be distinguished and what influential factors are. As a result, still much is unknown about the outcomes of collaboration processes with citizens. Future research is required in order to conclude whether: a) the underlying assumptions about the benefits of co-creation are correct, b) under which circumstances certain outcomes of co-creation may occur and c) to what extent these outcomes are long-lasting.

3. Empirical

As our review has shown, so far most empirical data in the literature is derived from records within the education and health care sector. Given the traditional direct relation between service provider and service user this is not surprising. However since citizen involvement gained popularity in other policy sectors as well, it seems prudent to expand this body of knowledge with other domains. Future research must conclude to what extent the policy field in which co-creation is implemented is influential to the type and effects of these processes.

4.7 Reflection

The results of this review are interesting, especially if we compare the assumptions behind the role of co-creation in social innovation and the reported objectives and outcomes of co-creation/coproduction in the academic literature. Policy makers have often high expectations of co-creation in public innovation, but actual results are hardly reported. What does this imply for the added value that is attached to co-creation in social innovation? Answering this question seems to depend on the perspective on (social) innovation and co-creation/co-production. If we use a rational, functional or goal-oriented approach, the outcomes seem to be somewhat disappointing. Co-creation and co-production processes are often not studied in such a linear approach with a beforehand defined objective, an approach how to obtain this objective and a conclusion whether this objective is achieved or not. However, we could also argue that the added value of co-creation/coproduction should be assessed from a more cultural or institutional perspective in which innovation and co-creation/coproduction is being defined as a process of sense making. Co-

creation/coproduction can be seen as the development of a repertoire that policy makers and organizations develop to convince their external environment, that the organization or their policies make sense (Weick, 1969; 1995). Co-creation processes are important symbolic processes in which an organization tries to establish a process of normative integration between the central and dominant values and developments which are important in the environment of the organization and the values that are important in the organization (DiMaggio & Powell, 1983; 1991). Co-creation in public innovation can therefore be considered as a process in which the involved stakeholders within and outside an organization try to develop a new, common frame in order to achieve legitimacy. Feller (1981) has called this process of normative integration 'conspicuous production'. In this the notion of Meyer & Rowan (1977) is embedded that the adoption of a co-creation approach can also be seen as a myth or ceremony to which organizations have to comply in order to guarantee their legitimacy towards their external and internal environment.

Acknowledgement

In order to conclude our research and to complete our database of relevant records, we have consulted a number of experts in the field of co-creation/co-production. The consulted experts are prof. Tony Bovaird of the University of Birmingham (United Kingdom), prof. Taco Brandsen of the Radboud University Nijmegen (the Netherlands), prof. Victor Pestoff of the University of Östersund (Sweden), prof. Stephen Osborne of the University of Edinburgh (United Kingdom) and prof. Bram Verschuere of the University of Gent (Belgium). We are very thankful for their contributions.

References

**in systematic review*

- *Abers, R. (1998). From clientelism to cooperation: Local government, participatory policy, and civic organizing in Porto-Alegre, Brazil. *Politics & Society*, 26(4), 511-537. doi:10.1177/0032329298026004004
- *Ackerman, J. (2004). Co-governance for accountability: Beyond "exit" and "voice". *World Development*, 32(3), 447-463. doi:10.1016/j.worlddev.2003.06.015
- *Albury, D. (2005). Fostering innovation in public services. *Public Money & Management*, 25(1), 51-56.
- *Alford, J. (1998). A public management road less travelled: Clients as co-producers of public services. *Australian Journal of Public Administration*, 57(4), 128-137.
- *Alford, J. (2002). Why do public-sector clients coproduce? toward a contingency theory. *Administration & Society*, 34(1), 32-56. doi:10.1177/0095399702034001004
- *Alford, J. (2009). *Engaging public sector clients: From service-delivery to co-production*. Palgrave Macmillan.
- * Alford, J. (2011). Public Value from Co-production by Clients. In J. Bennington & M. H. Moore (Eds.), *Public Value: Theory & Practice* (pp. 144–157). Hampshire: Palgrave Macmillan.
- *Anderson, J., & Clary, B. (1987). Coproduction in emergency medical-services. *Journal of Voluntary Action Research*, 16(3), 33-42.
- *Andrews, R., & Brewer, G. A. (2013). Social capital, management capacity and public service performance evidence from the US states. *Public Management Review*, 15(1), 19-42. doi:10.1080/14719037.2012.662445
- *Baars, T. (2011). Experiential science; towards an integration of implicit and reflected practitioner-expert knowledge in the scientific development of organic farming. *Journal of Agricultural & Environmental Ethics*, 24(6), 601-628. doi:10.1007/s10806-010-9281-3
- * Barnes, M., Harrison, S., Mort, M., Shardlow, P., & Wistow, G. (1999). The new management of community care: user groups, citizenship and co-production, in: Stoker, G. (1999). *The new management of British local governance*. Macmillan.
- Barrutia, J. M., & Echebarria, C. (2012)[1]. Greening regions: The effect of social entrepreneurship, co-decision and co-creation on the embrace of good sustainable development practices. *Journal of Environmental Planning and Management*, 55(10), 1348-1368. doi:10.1080/09640568.2012.657298
- *Barrutia, J. M., & Echebarria, C. (2012)[2]. Why do municipal authorities participate in- and are loyal to- LA21 networks? *Journal of Cleaner Production*, 41, 42-52. doi:10.1016/j.jclepro.2012.10.006

- *Bason, C. (2010). *Leading public sector innovation: Co-creating for a better society*. Bristol: The Policy Press.
- Bates, S. (2012), *The social innovation imperative*. New York: McGraw Hill
- *Baumer, E. P. S., Sueyoshi, M., & Tomlinson, B. (2011). Bloggers and readers blogging together: Collaborative co-creation of political blogs. *Computer Supported Cooperative Work: CSCW: An International Journal*, 20(1-2), 1-36.
- *Bebbington, A., Humphreys, Bebbington, D., Bury, J., Ligan, J., Muñoz, J. P., & Scurrah, M. (2008). Mining and social movements: Struggles over livelihood and rural territorial development in the Andes. *World Development*, 36(12), 2888-2905.
- Bekkers, V. & Homburg V. (2007). The myths of E-government. *The Information Society*, 23(5), 373-382.
- Bekkers, V. Edelenbos, J. Steijn, B. (2011). An innovative public sector? embarking on the innovation journey. In Bekkers, V. Edelenbos, J. Steijn, B. (Ed.), *Innovation in the public sector: Linking capacity and leadership* (pp. 197-222). Houndsmills: Palgrave McMillan.
- *Benari, E. (1990). A Bureaucrat in Every Japanese Kitchen? On Cultural Assumptions and Coproduction. *Administration & Society*, 21(4), 472-492.
- *Bifulco, R., & Ladd, H. F. (2006). Institutional change and coproduction of public services: The effect of charter schools on parental involvement. *Journal of Public Administration Research and Theory*, 16(4), 553-576. doi:10.1093/jopart/muj001
- *Boland, L., & Coleman, E. (2008). New development: What lies beyond service delivery? leadership behaviours for place shaping in local government. *Public Money and Management*, 28(5), 313-318.
- *Bovaird, T. & Loeffler (2012) From Engagement to Co-production: How Users and Communities Contribute to Public Services, in: Pestoff, V., Brandsen, T., & Verschuere, B. (2012). *New public governance, the third sector and co-production*. Routledge USA
- *Bovaird, T. (2007). Beyond engagement and participation: User and community coproduction of public services. *Public Administration Review*, 67(5), 846-860. doi:10.1111/j.1540-6210.2007.00773.x
- *Bovaird, T., Löffler, E., & Parrado-Díez, S. (2002). Finding a bowling partner: The role of stakeholders in activating civil society in Germany, Spain and the United Kingdom. *Public Management Review*, 4(3), 411-431. doi:10.1080/14616670210151621
- *Bowden, J. L. -, & D'Alessandro, S. (2011). Co-creating value in higher education: The role of interactive classroom response technologies. *Asian Social Science*, 7(11), 35-47.
- *Boyle, D. (2010). Local economics and co-production. *Development*, 53(3), 319-324.
- *Brandsen, T., & Helderma, J. (2012). The trade-off between capital and community: The conditions for successful co-production in housing. *Voluntas*, 23(4), 1139-1155.

- *Brandsen, T., & Pestoff, V. (2006). Co-production, the third sector and the delivery of public services. an introduction. *Public Management Review*, 8(4), 493-501.
- *Briscoe, G., Keränen, K., & Parry, G. (2012). Understanding complex service systems through different lenses: An overview. *European Management Journal*, 30(5), 418-426. doi:10.1016/j.emj.2012.06.004
- *Brudney, J. L. (1987). Coproduction and privatization - exploring the relationship and its implications. *Journal of Voluntary Action Research*, 16(3), 11-21.
- *Cahn, E., & Gray, C. (2012). Co-production from a normative perspective, in: Pestoff, V., Brandsen, T., & Verschuere, B. (2012). *New public governance, the third sector and co-production*. Routledge USA.
- *Cairns, G. (2013). Evolutions in food marketing, quantifying the impact, and policy implications. *Appetite*, 62, 194-197. doi:10.1016/j.appet.2012.07.016
- Calabro, A. (2012) Co-production: An Alternative to the Partial Privatization Processes in Italy and Norway, in: Pestoff, V., Brandsen, T., & Verschuere, B. (2012). *New public governance, the third sector and co-production*. Routledge USA.
- *Carr, P. J. (2012). Citizens, community, and crime control: The problems and prospects for negotiated order. *Criminology and Criminal Justice*, 12(4), 397-412.
- *Casey, J., & Dalton, B. (2006). The best of times, the worst of times: Community-sector advocacy in the age of 'compacts'. *Australian Journal of Political Science*, 41(1), 23-38.
- *Cassia, F., & Magno, F. (2011). Differences between public administrators' and elected officials' perspectives on the role of the citizen in service quality improvement processes. *TQM Journal*, 23(5), 550-559.
- Castells, M. (1996). *The rise of the network society*. Cambridge: Blackwell.
- Cels, S., J. de Jong & F. Nauta (2012), *Agents of change: strategy and tactics for social innovation*, Washington: Brookings Institute Press.
- Chathoth, P., Altinay, L., Harrington, R.J., Okumus, F. & Chan, E.S.W. (2012) Co-production versus Co-creation: a Process based Continuum in the Hotel Service Context, in: *International Journal of Hospital Management* 32(1); pp. 11-20
- Chesbrough, H. (2003). The era of open innovation. *MIT Sloan Management Review*, 44(3), 35-42.
- Chesbrough, H. (2006). Open innovation: A new paradigm for understanding industrial innovation. In Chesbrough, H. Vanhaverbeke, W. West, J. (Ed.), *Open innovation: Researching a new paradigm* (2006). Oxford: Oxford University Press.
- *Considine, M. (1999). Markets, networks and the new welfare state: employment assistance reforms in Australia. *Journal of social policy*, 28(2), 183-203.

- *Corburn, J. (2007). Community knowledge in environmental health science: Co-producing policy expertise. *Environmental Science and Policy*, 10(2), 150-161.
- *Cornwell, M. L., & Campbell, L. M. (2012). Co-producing conservation and knowledge: Citizen-based sea turtle monitoring in north Carolina, USA. *Social Studies of Science*, 42(1), 101-120.
- Craig, G., & Mayo, M. (Eds.). (1995). *Community empowerment: A reader in participation and development*. Zed Books.
- *Davidsen, A. S., & Reventlow, S. (2011). Narratives about patients with psychological problems illustrate different professional roles among general practitioners. *Journal of Health Psychology*, 16(6), 959-968. doi:10.1177/1359105310397219
- *Davis, A., & Ruddle, K. (2012). Massaging the misery: Recent approaches to fisheries governance and the betrayal of small-scale fisheries. *Human Organization*, 71(3), 244-254.
- *De Witte, K., & Geys, B. (2013). Citizen coproduction and efficient public good provision: Theory and evidence from local public libraries. *European Journal of Operational Research*, 224(3), 592-602.
- *Dean, R. G. (1995). Stories of aids - the use of narrative as an approach to understanding in an aids support group. *Clinical Social Work Journal*, 23(3), 287-304. doi:10.1007/BF02191752
- *Díaz-Méndez, M., & Gummesson, E. (2012). Value co-creation and university teaching quality: Consequences for the european higher education area (EHEA). *Journal of Service Management*, 23(4), 571-592. doi:10.1108/09564231211260422
- *Dijck, van J., & Nieborg, D. (2009). Wikinomics and its discontents: A critical analysis of web 2.0 business manifestos. *New Media & Society*, 11(5), 855-874. doi:10.1177/1461444809105356
- DiMaggio P. & Powell W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review* 48 (2): 147–60
- DiMaggio, P. J., & Powell, W. W. (Eds.). (1991). *The new institutionalism in organizational analysis* (Vol. 17). Chicago: University of Chicago Press.
- *Downe, J., Hartley, J., & Rashman, L. (2004). Evaluating the extent of inter-organizational learning and change in local authorities through the English Beacon Council Scheme. *Public Management Review*, 6(4), 531-554.
- Drucker, P. (1985). *Innovation and entrepreneurship*. London: Heinemann.
- *Edelenbos, J., van Buuren, A., & van Schie, N. (2011). Co-producing knowledge: Joint knowledge production between experts, bureaucrats and stakeholders in Dutch water management projects. *Environmental Science and Policy*, 14(6), 675-684.
- *Eick, V. (2012). The co-production of purified space: Hybrid policing in German business improvement districts. *European Urban and Regional Studies*, 19(2), 121-136. doi:10.1177/0969776411420018

- *Elg, M., Engström, J., Witell, L., & Poksinska, B. (2012). Co-creation and learning in health-care service development. *Journal of Service Management*, 23(3), 328-343. doi:10.1108/09564231211248435
- European Commission (2011), Empowering people, driving change: social innovation in the European Union, Luxemburg: Publications of the European Union.
- European Commission (2013) Industrial Innovation: Social Innovation (ec.europa.eu/enterprise/policies/innovation/policy/social-innovation/index_en.htm) last viewed 02-04-2013
- *Evans, S., Hills, S., & Orme, J. (2012). Doing more for less? developing sustainable systems of social care in the context of climate change and public spending cuts. *British Journal of Social Work*, 42(4), 744-764.
- *Farmer, J., Hill, C. & Munoz, S. (ed.) (2012) *Community Co-Production*, Edward Elgar, Cheltenham UK, Northampton, MA, USA
- *Farr, M. (2013) Citizens and the Co-creation of Public Service Innovation, in: Osborne, S. & Brown, L. (2013) *Handbook of Innovation in Public Services*, Edward Elgar Publishing
- Feller, I. (1981) Public sector innovation as conspicuous production. *Policy Analysis*, 7(0-1); 1-20.
- *Feller, J., Finnegan, P., & Nilsson, O. (2011). Open innovation and public administration: Transformational typologies and business model impacts. *European Journal of Information Systems*, 20(3), 358-374.
- Flynn, N. (2007). *Public sector management*. Sage.
- *Foljanty-Jost, G. (2011). Bringing the citizen back in: Democratic dimensions of local reforms in Germany and Japan. *East Asia*, 28(4), 313-328.
- *Forsyth, T. (2001). Environmental social movements in Thailand: How important is class? *Asian Journal of Social Science*, 29(1), 35-51.
- *Fuglsang, L. (2008). Capturing the benefits of open innovation in public innovation: A case study. *International Journal of Services, Technology and Management*, 9(3-4), 234-248.
- *Gebauer, H., Johnson, M., & Enquist, B. (2010). Value co-creation as a determinant of success in public transport services: A study of the Swiss federal railway operator (SBB). *Managing Service Quality*, 20(6), 511-530.
- *Gill, L., White, L., & Cameron, I. (2011). Service co-creation in community-based aged healthcare. *Managing Service Quality*, 21(2), 152-177.
- *Gillard, S., Simons, L., Turner, K., Lucock, M., & Edwards, C. (2012). Patient and public involvement in the coproduction of knowledge: Reflection on the analysis of qualitative data in a mental health study. *Qualitative Health Research*, 22(8), 1126-1137.

- *Glover, T. D. (2002). Citizenship and the production of public recreation: Is there an empirical relationship? *Journal of Leisure Research*, 34(2), 204-231.
- Goldenberg, M., Kamoji, W., Orton, L. & Williamson, M. (2009) *Social Innovation in Canada: An Update*, CPRN Research Report
- *Glynos, J., & Speed, E. (2012). Varieties of co-production in public services: Time banks in a UK health policy context. *Critical Policy Studies*, 6(4), 402-433.
- Grisseemann, U. S., &Stokburger-Sauer, N. E. (2012). Customer co-creation of travel services: The role of company support and customer satisfaction with the co-creation performance. *Tourism Management*, 33(6), 1483-1492. doi:10.1016/j.tourman.2012.02.002
- *Groeneveld, M. (2009). European sport governance, citizens, and the state: Finding a (co)productive balance for the twenty-first century. *Public Management Review*, 11(4), 421-440.
- Hartley, J. (2005). Innovation in governance and public services: Past and present. *Public money and management*, 25(1), 27-34.
- *Hartley, J., & Benington, J. (2006). Copy and paste, or graft and transplant? knowledge sharing through inter-organizational networks. *Public Money & Management*, 26(2), 101-108. doi:10.1111/j.1467-9302.2006.00508.x
- *Hasson, S., & Ley, D. (1997). Neighborhood organizations, the welfare state, and citizenship rights. *Urban Affairs Review*, 33(1), 28-58. doi:10.1177/107808749703300102
- *Hewison Sr., A., Gale, N., & Shapiro, J. (2012). Co-production in research: Some reflections on the experience of engaging practitioners in health research. *Public Money and Management*, 32(4), 297-302.
- *Howalt, J. & Schwarz, M. (2010) *Social Innovation: Concepts, research fields and international trends*, International Monitoring
- *Hyde, P., & Davies, H. T. O. (2004). Service design, culture and performance: Collusion and co-production in health care. *Human Relations*, 57(11), 1407-1426.
- *Jaakkola, E., & Hakanen, T. (2012). Value co-creation in solution networks. *Industrial Marketing Management*, doi:10.1016/j.indmarman.2012.11.005
- *Jaeger, B. (2013) User Involvement in Public Service Innovation, in: Osborne, S. & Brown, L. (2013) *Handbook of Innovation in Public Services*, Edward Elgar Publishing
- *Jakobsen, M. (2013). Can government initiatives increase citizen coproduction? results of a randomized field experiment. *Journal of Public Administration Research and Theory*, 23(1), 27-54. doi:10.1093/jopart/mus036
- *Joshi, A., & Moore, M. (2004). Institutionalised co-production: Unorthodox public service delivery in challenging environments. *Journal of Development Studies*, 40(4), 31-49.

- *Karahasanovic, A., Brandtzaeg, P. B., Heim, J., Lueders, M., Vermeir, L., Pierson, J., Jans, G. (2009). Co-creation and user-generated content-elderly people's user requirements. *Computers in Human Behavior*, 25(3), 655-678. doi:10.1016/j.chb.2008.08.012
- * Kassam, K. A. S., & Tettey, W. J. (2003). Academics as citizens—collaborative applied interdisciplinary research in the service of communities. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 24(1), 155-174.
- *Kerrigan, F., & Graham, G. (2010). Interaction of regional news-media production and consumption through the social space. *Journal of Marketing Management*, 26(3-4), 302-320.
- *Kingfisher, C. P. (1998). How providers make policy: An analysis of everyday conversation in a welfare office. *Journal of Community and Applied Social Psychology*, 8(2), 119-136.
- *Kokkinakos, P., Koussouris, S., Panopoulos, D., Askounis, D., Ramfos, A., Georgousopoulos, C., & Wittern, E. (2012). Citizens collaboration and co-creation in public service delivery: The COCKPIT project. *International Journal of Electronic Government Research*, 8(3), 44-62. doi:10.4018/jegr.2012070103
- *Lachmund, J. (1998). Between scrutiny and treatment: Physical diagnosis and the restructuring of 19th century medical practice. *Sociology of Health & Illness*, 20(6), 779-801. doi:10.1111/1467-9566.00129
- *Lam, W. F. (1996). Institutional design of public agencies and coproduction: A study of irrigation associations in Taiwan. *World Development*, 24(6), 1039-1054.
- *Lelieveldt, H., Dekker, K., Voelker, B., & Torenvlied, R. (2009). Civic organizations as political actors mapping and predicting the involvement of civic organizations in neighborhood problem-solving and coproduction. *Urban Affairs Review*, 45(1), 3-24. doi:10.1177/1078087409332303
- *Leone, R. P., Walker, C. A., Curry, L. C., & Agee, E. J. (2012). Application of a marketing concept to patient-centered care: Co-producing health with heart failure patients. *Online Journal of Issues in Nursing*, 17(2)
- *Li, S. (2004). 'Symbiotic niceness': Constructing a therapeutic relationship in psychosocial palliative care. *Social Science and Medicine*, 58(12), 2571-2583.
- Liberati, A., Altman, D., Tetzlaff, J., Mulrow, C., Gøtzsche, P., Ioannidis, J., Clarke, M., Devereaux, P., Kleijnen, J. & Moher, D. (2009) The PRISMA Statement for Reporting Systematic Reviews and Meta-analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration, in: *Academia and Clinic* 151(4); pp. 65-94
- *Lindahl, B., Liden, E., & Lindblad, B. (2011). A meta-synthesis describing the relationships between patients, informal caregivers and health professionals in home-care settings. *Journal of Clinical Nursing*, 20(3-4), 454-463. doi:10.1111/j.1365-2702.2009.03008.x
- *Lindblom, C. (1959). The science of muddling through. *Public Administration Review*, 19, 79-88.
- Lusch, R. & Vargo, S. (2006) Service-dominant logic: reactions, reflections and refinements, in: *Service Science March* 1(5); pp. 4-16

- *Lynch, E. (2005). Co-creation theory. *Nursing Standard (Royal College of Nursing (Great Britain) : 1987)*, 20(4), 18-9.
- Mair, J. (2010), Social entrepreneurship: taking stock and looking ahead, in: Fayolle, A. & H. Matlay (eds.), *Handbook of Research on Social Entrepreneurship*. Cheltenham: Edgar Elgar
- *Maiello, A., Viegas, C. V., Frey, M., & D. Ribeiro, J. L. (2013). Public managers as catalysts of knowledge co-production? investigating knowledge dynamics in local environmental policy. *Environmental Science and Policy*, 27, 141-150.
- *Majone, G. (1998) *Evidence, Argument and Persuasion in the Policy Process*, New Haven, CN, Yale University Press
- *McFarlane, C. (2012). The entrepreneurial slum: Civil society, mobility and the co-production of urban development. *Urban Studies*, 49(13), 2795-2816.
- *McLoughlin, I., Maniatopoulos, G., Wilson, R., & Martin, M. (2009). Hope to die before you get old?: Techno centric versus user-centered approaches in developing virtual services for older people. *Public Management Review*, 11(6), 857-880.
- *McNall, M., Reed, C. S., Brown, R., & Allen, A. (2009). Brokering community-university engagement. *Innovative Higher Education*, 33(5), 317-331.
- *Medaglia, R. (2012). ENGAGED SCHOLARSHIP IN RESEARCH ON INFORMATION TECHNOLOGY IN GOVERNMENT stuck in the ivory tower? *Information Communication & Society*, 15(2), 246-259. doi:10.1080/1369118X.2011.605903
- *Meijer, A. J. (2011). Networked coproduction of public services in virtual communities: From a government-centric to a community approach to public service support. *Public Administration Review*, 71(4), 598-607. doi:10.1111/j.1540-6210.2011.02391.x
- *Meijer, A. J. (2012). Co-production in an information age: Individual and community engagement supported by new media. *Voluntas*, 23(4), 1156-1172.
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American journal of sociology*, 340-363
- *Mesl, N. (2010). The use of theories of action in the practice of social work with families: The co-creation of knowledge in practice. *Ljetopis Socijalnog Rada*, 17(1), 5-25.
- *Mitlin, D. (2008). With and beyond the state - co-production as a route to political influence, power and transformation for grassroots organizations. *Environment and Urbanization*, 20(2), 339-360.
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. (2009) Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement, in: *Annals of Internal Medicine* 151(4); pp. 2642-69
- *Molinas, J. R. (1998). The impact of inequality, gender, external assistance and social capital on local-level cooperation. *World Development*, 26(3), 413-431. doi:10.1016/S0305-750X(97)10066-3

- Moore, M. (1995). *Creating public value: Strategic management in government*. Cambridge Mass: Harvard University Press.
- *Moore, M., & Hartley, J. (2008). Innovations in governance. *Public Management Review*, 10(1), 3-20. doi:10.1080/14719030701763161
- Mulgan, G. & Albury, D. (2003). *Innovation in the public sector*. London: Strategy Unit Cabinet Office.
- Mulgan, J. (2009). *The art of public strategy*. Oxford: Oxford University Press.
- *Myrdahl, T. K. M. (2009). "Family-friendly" without the double entendre: A spatial analysis of normative game spaces and lesbian fans. *Journal of Lesbian Studies*, 13(3), 291-305.
- * Needham, C. (2008). Realising the potential of co-production: negotiating improvements in public services. *Social Policy and Society*, 7(2), 221.
- *Nimegeer, A., Farmer, J., West, C., & Currie, M. (2011). Addressing the problem of rural community engagement in healthcare service design. *Health and Place*, 17(4), 1004-1006.
- *O'Rourke, D., & Macey, G. P. (2003). Community environmental policing: Assessing new strategies of public participation in environmental regulation. *Journal of Policy Analysis and Management*, 22(3), 383-414.
- Osborne, S. P. (1998). The innovative capacity of voluntary organisations: managerial challenges for local government. *Local government studies*, 24(1), 19-40.
- *Osborne, S. (2005). *Managing change and innovation in public service organizations*. London: Routledge.
- Osborne, S. P., & Brown, L. (2011). Innovation in public services: Engaging with risk. *Public Money & Management*, 31(1), 4-6.
- *Ostrom, E. (1996). Crossing the great divide: Coproduction, synergy, and development. *World Development*, 24(6), 1073-1087. doi:10.1016/0305-750X(96)00023-X
- *Parrado, S., Van Ryzin, G. G., Bovaird, T., & Löffler, E. (2013). Correlates of Co-production: Evidence From a Five-Nation Survey of Citizens. *International Public Management Journal*, 16(1), 85-112.
- *Pestoff, V. (1998) Empowering Citizens as Co-Producers, in: Pestoff, V. (1998) *Beyond the Market & State. Social enterprises and civil democracy in a welfare society*, Ashgate
- *Pestoff, V. (2006). Citizens and co-production of welfare services. childcare in eight European countries. *Public Management Review*, 8(4), 503-519.
- *Pestoff, V. (2008) Consumer Perspectives on the Social Economy and Civil Society, in: Pestoff, V. (2006) *A Democratic Architecture for the Welfare State*, Routledge
- *Pestoff, V. (2009). Towards a paradigm of democratic participation: Citizen participation and co-production of personal social services in Sweden. *Annals of Public and Cooperative Economics*, 80(2), 197-224.

- *Pestoff, V. (2012). Co-production and third sector social services in Europe: Some concepts and evidence. *Voluntas*, 23(4), 1102-1118.
- *Pestoff, V. A., & Brandsen, T. (2008). *Co-production: the third sector and the delivery of public services*. Abingdon: Routledge
- *Pestoff, V., Osborne, S. P., & Brandsen, T. (2006). Patterns of co-production in public services. Some concluding thoughts. *Public Management Review*, 8(4), 591-595.
- Pollitt, C., & Hupe, P. (2011). Talking About Government: The role of magic concepts. *Public Management Review*, 13(5), 641-658.
- *Porter, D. (2012) Co-production and Network Structures in Public Education, in: Pestoff, V., Brandsen, T., & Verschuere, B. (2012). *New public governance, the third sector and co-production*. Routledge USA.
- *Pouliot, C. (2009). Using the deficit model, public debate model and co-production of knowledge models to interpret points of view of students concerning citizens' participation in socio-scientific issues. *International Journal of Environmental and Science Education*, 4(1), 49-73.
- Prahalad, C. & Ramaswamy, V. (2000) Co-opting Customer Competence, in: *Harvard Business Review* 78(1); pp. 79-87
- *Prentice, S. (2006). Childcare, co-production and the third sector in Canada. *Public Management Review*, 8(4), 521-536. doi:10.1080/14719030601022890
- *Rashman L. & J. Hartley (2002), Leading and learning? Knowledge transfer in Beacon Council Scheme, in: *Public Administration*, vol. 80; pp. 523-542.
- *Reisig, M. D., & Giacomazzi, A. L. (1998). Citizen perceptions of community policing: Are attitudes toward police important? *Policing*, 21(3), 547-561.
- *Renauer, B. C., Duffee, D. E., & Scott, J. D. (2003). Measuring police-community co-production: Trade-offs in two observational approaches. *Policing: An International Journal of Police Strategies & Management*, 26(1), 9-28.
- *Roberts, A., Greenhill, B., Talbot, A., & Cuzak, M. (2012). 'Standing up for my human rights': A group's journey beyond consultation towards co-production. *British Journal of Learning Disabilities*, 40(4), 292-301.
- *Roberts, A., Townsend, S., Morris, J., Rushbrooke, E., Greenhill, B., Whitehead, R., Golding, L. (2013). Treat me right, treat me equal: Using national policy and legislation to create positive changes in local health services for people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 26(1), 14-25.
- *Rosentraub, M. S., & Warren, R. (1987). Citizen participation in the production of urban services. *Public Productivity Review*, 75-89.
- *Rossi, U. (2004). The multiplex city - the process of urban change in the historic centre of Naples. *European Urban and Regional Studies*, 11(2), 156-169. doi:10.1177/0969776404041421

- *Ryan, B. (2012). Co-production: Option or obligation? *Australian Journal of Public Administration*, 71(3), 314-324.
- *Schachter, H. L., & (Rachel) Liu, R. (2005). Policy development and new immigrant communities: A case study of citizen input in defining transit problems. *Public Administration Review*, 65(5), 614-623. doi:10.1111/j.1540-6210.2005.00488.x
- *Schaffer, R., Kuczynski, K., & Skinner, D. (2008). Producing genetic knowledge and citizenship through the internet: Mothers, pediatric genetics, and cybermedicine. *Sociology of Health & Illness*, 30(1), 145-159. doi:10.1111/j.1467-9566.2007.01042.x
- *Schafft, K. A., & Brown, D. L. (2000). Social capital and grassroots development: The case of Roma self-governance in Hungary. *Social Problems*, 47(2), 201-219. doi:10.1525/sp.2000.47.2.03x0288b
- *Schneider, F., Steiger, D., Ledermann, T., Fry, P., & Rist, S. (2012). No-tillage farming: Co-creation of innovation through network building. *Land Degradation & Development*, 23(3), 242-255. doi:10.1002/ldr.1073
- Schumpeter, J. (1942). *Capitalism, socialism and democracy*. New York: Harper.
- *Sharma, S., Wallace, L. M., Kosmala-Anderson, J., Realpe, A., & Turner, A. (2011). Perceptions and experiences of co-delivery model for self-management training for clinicians working with patients with long-term conditions at three healthcare economies in U.K. *World Hospitals and Health Services : The Official Journal of the International Hospital Federation*, 47(2), 22-24.
- *Skelcher, C. (2007). Does democracy matter? A transatlantic research design on democratic performance and special purpose governments. *Journal of Public Administration Research and Theory*, 17(1), 61-76. doi:10.1093/jopart/muj014
- *Somerville, M. M., & EchoHawk, D. (2011). Recuerdos Hablados/Memories spoken: Toward the co-creation of digital knowledge with community significance. *Library Trends*, 59(4), 650-662.
- Sørensen, E., & Torfing, J. (2005). The democratic anchorage of governance networks. *Scandinavian political studies*, 28(3), 195-218.
- Sørensen, E. & J. Torfing (2011) Enhancing collaborative innovation in the public sector, in: *Administration & Society*, 43(8); 842-868.
- *Stilgoe, J. (2007). The (co-)production of public uncertainty: UK scientific advice on mobile phone health risks. *Public Understanding of Science*, 16(1), 45-61. doi:10.1177/0963662506059262
- *Strokosch, K. (2013) Co-Production and Innovation in Public Services: Can co-production drive innovation?, in: Osborne, S. & Brown, L. (2013) *Handbook of Innovation in Public Services*, Edward Elgar Publishing
- *Sundeen, R. A. (1988). Explaining participation in coproduction - a study of volunteers. *Social Science Quarterly*, 69(3), 547-568.

- *Svendsen, G. L. H., & Svendsen, G. T. (2000). Measuring social capital: The Danish co-operative dairy movement. *Sociologia Ruralis*, 40(1), 72-+. doi:10.1111/1467-9523.00132
- *Talsma, L., & Molenbroek, J. F. M. (2012). User-centered ecotourism development. *Work-a Journal of Prevention Assessment & Rehabilitation*, 41, 2147-2154. doi:10.3233/WOR-2012-1019-2147
- Thelen, K. (2002) How Institutions Evolve: Insights from Comparative-Historical Analysis. In: James Mahoney/Dietrich Rueschemeyer (eds.), *Comparative Historical Analysis in the Social Sciences. Analysis in the Social Sciences*. New York: Cambridge University Press.
- The Guardian (2010) Cameron's 'big society' is a town 14-04-2010 (<http://www.guardian.co.uk/commentisfree/2010/apr/14/david-cameron-big-society-conservatives>) last viewed 02-04-2013
- Trenfield, D., Denyer, D. & Smart, P. (2003) Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review, in: *British Journal of Management* 14; pp. 207-222
- *Trummer, U. F., Mueller, U. O., Nowak, P., Stidl, T., & Pelikan, J. M. (2006). Does physician-patient communication that aims at empowering patients improve clinical outcome?. A case study. *Patient Education and Counseling*, 61(2), 299-306.
- *Tsukamoto, I (2012) The Potential of Nonprofit-government partnerships for promoting citizen involvement, in: Pestoff, V., Brandsen, T., & Verschuere, B. (2012). *New public governance, the third sector and co-production*. Routledge USA.
- *Vaillancourt, Y. (2009). Social economy in the co-construction of public policy. *Annals of Public and Cooperative Economics*, 80(2), 275-313.
- Vargo, S. & Lusch, R. (2004) Evolving to a New Dominant Logic for Marketing, in: *Journal of Marketing* 68(1); pp. 1-17
- *Vamstad, J. (2012). Co-production and service quality: The case of cooperative childcare in sweden. *Voluntas*, 23(4), 1173-1188.
- *Ven van de, A., Rogers, R., Bechara, J. & Sun, K. (2008) Organizational diversity, integration and performance, in: *Journal of Organizational Behavior* 29(3); pp. 335-354
- *Verschuere, B., Brandsen, T., & Pestoff, V. (2012). Co-production: The state of the art in research and the future agenda. *Voluntas*, 23(4), 1083-1101.
- Von Hippel, E. (1976). The dominant role of users in the scientific instrument innovation process. *Research Policy*, 5, 212-239.
- Von Hippel, E. (1987). Cooperation between rivals: Informal know-how trading. *Research policy*, 16(6), 291-302.
- Von Hippel, E. (2005). *Democratizing innovation*. Cambridge: MIT Press.

- Von Hippel, E. (2007). Horizontal innovation networks - by and for users. *Industrial and Corporate Change*, 2(1), 1-23.
- *Vries, de M. S. (2008) Stability despite Reforms: Structural Asymmetries in Dutch local policy networks, in: *Local Government Studies* 34(2); pp. 221-243
- *Walker, R. M. (2008). An empirical evaluation of innovation types and organizational and environmental characteristics: Towards a configuration framework. *Journal of Public Administration Research and Theory*, 18(4), 591-615.
- *Weaver, B. (2011). Co-producing community justice: The transformative potential of personalisation
- Weick, K. (1969) *The Social Psychology of Organizing*. Reading, MA: Addison-Wesley
- Weick, K. (1995), Sense-making in Organizations. Thousand Oaks: Sage
for penal sanctions. *British Journal of Social Work*, 41(6), 1038-1057. doi:10.1093/bjsw/bcr011
- *Weinberger, K., & Jutting, J. P. (2001). Women's participation in local organizations: Conditions and constraints. *World Development*, 29(8), 1391-1404. doi:10.1016/S0305-750X(01)00049-3
- *Whitmarsh, L., Swartling, Å. G., & Jäger, J. (2009). Participation of experts and non-experts in a sustainability assessment of mobility. *Environmental Policy and Governance*, 19(4), 232-250.
- *Windrum, P. K., P. (2008). *Innovation in public services. entrepreneurship, creativity and management*. Cheltenham: Edgar Elgar.
- *Wilson, S., Lipsey, M. & Derzon, J. (2003) The Effects of School-Based Intervention Programs on Aggressive Behavior: A Meta-Analysis, in: *Journal of Consulting and Clinical Psychology* 71(1); pp. 136-149
- *Wipf, E., Ohl, F., & Groeneveld, M. (2009). Managing natural locations for outdoor recreation. *Public Management Review*, 11(4), 515-537. doi:10.1080/14719030902989599
- *Wise, S., Paton, R. A., & Gegenhuber, T. (2012). Value co-creation through collective intelligence in the public sector: A review of US and European initiatives. *Vine*, 42(2), 251-276.
- *Witte, de K. & Geys, B. (2013) Citizen co-production and efficient public good provision: Theory and evidence from local public libraries, in: *European Journal of Operational Research* 224(3); pp. 592-602
- *Zhang, J. J., Joglekar, N., & Verma, R. (2012). Pushing the frontier of sustainable service operations management: Evidence from US hospitality industry. *Journal of Service Management*, 23(3), 377-399.

Annex 1: PRISMA checklist

Annex 1: PRISMA checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	3
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	5
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	6
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	6
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	6, 7
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	7
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	7

Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	7
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	N.A.
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	N.A.
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	N.A.
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	N.A.

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	6, 7
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	7
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	8
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	9
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	N.A.
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	N.A.
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	N.A.
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	N.A.
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	9-18
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	18,19
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	20

Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	20, 21
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	1

Page 1 of 2

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097
For more information, visit: www.prisma-statement.org.