

# **Public Values? A Systematic Literature Review into the (Perceived) Effects of Public Service Co-Creation**

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# **Public Values? A Systematic Literature Review into the (Perceived) Effects of Public Service Co-Creation**

## **Introduction**

The changing face of democracy pushes the public sector to innovate for the better in terms of efficiency, effectivity and user experience (eg. Arundel, Bloch, and Ferguson 2019). The involvement of citizens in public service design, implementation and evaluation constitutes new forms of democracy (Capolupo, Piscopo, and Annarumma 2020). That is, citizens are increasingly becoming active contributors in ‘magic concepts’ such as social innovation, co-production and co-creation in public services (Voorberg, Bekkers, and Tummers 2015). The normative assumption underpinning the use of ‘magic’ co-creation is that the inclusion of end-users of public services, the citizens themselves, lead to ‘better services’ (Dudau, Glennon, and Verschuere 2019). ‘Better services’ can be conceptualized as services that are increasingly valuable to the public. Hence, co-creation is assumed to possibly enhance public values (Bryson et al. 2017; Jaspers and Steen 2019). Nevertheless, studies have also reported instances of value co-destruction rather than co-creation (cf. Williams, Kang, and Johnson 2016; Dudau, Glennon, and Verschuere 2019).

Scholars are far from reaching a consensus with regards to the question of what effects are generated by co-creation. Studies have found that co-creation possibly fosters trust (eg. Bentzen 2022), enhances equity in service delivery (eg. Xu and Tang 2020) and leads to improved service access (Farr 2016). However, Kang and Van Ryzin (2019) find that with regard to trust enhancement, co-creation does not have a significant effect. Similar instances of co-destruction rather than co-creation are reported in terms of equity in service delivery (eg. Flemig and Osborne 2019). This assertion is exemplary of the current state of the art on the effects of co-creation.

Moreover, consensus might be a few (or still many) steps away as systematic research into the effects of co-creation in public service provision is scarce (Brandsen, Steen, and Verschuere 2018; Jaspers and Steen 2019; Meijer 2016).

The goal of this literature review is to evaluate the current state of the literature on public values co-creation, while also assessing the current state of the literature on public values co-creation. Studies have mentioned the promise of co-creation for public value enhancement, but to what extent has this been confirmed empirically? This systematic review seeks to answer following research question: *What is the empirical evidence for the normative claim that co-creation enhances public values?* Our objective is twofold: we aim to provide insights into what public values are affected by co-creation initiatives as we systematically analyze the current state of the art on the effects of co-creation in public services. We will do so by making use of the PRISMA-protocol and building on a conceptual framework offered by Jaspers and Steen (2019)) to study the effects of co-production. In the subsequent section, we define co-creation, after which we conceptualize (perceived) effects of co-creation. We then disclose our methodology, before turning to our result and discussion sections. We conclude this paper by summarizing the most important findings of this review and offering a few considerations for future research.

### **Defining Co-Creation**

In this paper, we rely on the definition offered by Torfing, Sørensen, and Røiseland (2019, 55), who understand co-creation as “a process through which two or more public and private actors solve a shared problem, challenge, or task through a constructive exchange of different kinds of knowledge, resources, competences, and ideas that enhance the production of public value [ . . . ]”. This conceptualisation allows for a

“[...] holistic and inclusive picture [...]” including but not limited to co-production, stretching our focus over the involvement of citizens throughout the entire service cycle (Rodriguez Müller et al. 2021, 3). We are not blind for pleas for stricter definitions (cf. Brandsen and Honingh 2018), but argue that for the purpose of this review a broad approach is warranted for at least two reasons.

The first reason has to do with the exploratory nature of this review. As we want to explore the current state of the art on public service co-creation effects and the expected scarcity in number thereof, we do not want to render this systematic review superfluous by being too restrictive. In order to still be able to provide relevant insights when analysing the body of literature, we will be sensitive to the definitions that are being used. This also allows us to assess in what way conceptualizations of co-creation have evolved over time (if they have done so). Secondly, the definition of Torfing, Sørensen, and Røiseland (2019) makes explicit mention of the normative assumption pushing (local) governments to make use of co-creation. That is, this definition states that (one of) the goal(s) of co-creation is to “[...] enhance the production of public value [...]” (Torfing, Sørensen, and Røiseland 2019, 55), which fits well with the focus of this article.

However, by broadly defining co-creation, it also encompasses co-production, denoting the co-implementation of public services between citizens and governmental actors (Bovaird 2007; Bovaird and Loeffler 2012; Brandsen and Honingh 2016). Scholars have come up with plenty definitions and conceptualizations in plenty of colors and flavors, recalling one of the reasons for co-creation’s ‘magic’. Narrowly defined, it is understood as “[...] the involvement of citizens in the (co-)implementation of public services – involvement in services which refer to the transfer of implementing activities in favor of citizens that in the past have been carried out by government”

(Voorberg, Bekkers, and Tummers 2015, 1347). Approaches that more broadly define co-production offer extensive typologies focusing on the different stages of service delivery, types of tasks and organizational modes of citizens (Bovaird 2007; Osborne and Strokosch 2013; Nabatchi, Sancino, and Sicilia 2017; Brandsen and Honingh 2018).

Recalling the interchangeability of the terms within the literature (cf. Voorberg, Bekkers, and Tummers 2015), we aim to capture an encompassing sample as we allow for co-production to be one possible expression of co-creation. Although comparing co-creation to the longstanding tradition of co-production, the term is ‘more encompassing’, ‘newer’ and more ‘slippery’ (Brandsen and Honingh 2018, 10), other authors believe that “[...] co-creation in the public sector can provide a more holistic and inclusive picture than co-production” (Torfing, Sørensen, and Røiseland 2019; Rodriguez Müller et al. 2021, 3). We subscribe to the latter, as in our view co-creation also covers newer forms of interactions between citizens and government actors, instead of relating to service implementation solely. In line with Rodriguez Müller et al. (2021) we believe co-creation and co-production to be conceptually different with regards to the interaction purpose and not being limited to public service provision.

### **Public Values as (Perceived) Effects of Co-Creation in Public Services**

As stated, endorsing the co-creation definition offered by Torfing, Sørensen, and Røiseland (2019) we advance the understanding that co-creation potentially contributes to the enhancement of public value. Different scholars have developed a public value frameworks, in which different factor contributing to the realization of public values are linked. Bryson et al. (2017) have developed the strategic triangle for the enhancement of public value in complex policy fields. Later, Loeffler and Bovaird (2019) developed a model that is sensitive to outcomes outside the instrumental realm. These authors mention how co-production cannot only improve the service provision itself, but also

help citizens to “[...] increase their self-confidence and self-esteem – and [...] improve their own level of social contact and feel less isolated” (Loeffler and Bovaird 2020b, 43). All of these effects are valuable for the public and can be denoted by specific public values, which are ‘the important qualities of public governance’ (de Graaf, Huberts, and Smulders 2016, 1130; Nieuwenhuizen and Meijer 2020). In this review we understand the effects of co-creation as the realization (or obstruction) of specific public values (cf. Jaspers and Steen 2019).

Then, what is the potential of co-creation in terms of public values? Despite systematic research into the effects of co-creation still being largely absent, some scarce evidence is available (Brandsen, Steen, and Verschuere 2018; Loeffler and Bovaird 2018b; Voorberg, Bekkers, and Tummers 2015). Changes in trust, access to services and equity in their delivery have been mentioned. Yet, some scholars view co-creation as an instrumental “[...] tool for public governance aimed at mobilising and harnessing societal resources” (Ansell and Torfing 2021, 216) while others claim that co-production can strengthen government legitimacy (He and Ma 2021). Furthermore, co-production potentially enhances citizen empowerment (Jo and Nabatchi 2018), democratic principles (Verschuere et al. 2018) and service quality (Loeffler and Bovaird 2018a, 2020a). Again, we would like to stress that the public value co-destruction has also been mentioned as an effect of co-creation in the literature (Williams, Kang, and Johnson 2016; Steen, Brandsen, and Verschuere 2018).

It becomes apparent that there are good reasons to turn to co-creation for its ‘magical’ appeal as the potential of co-creation in terms of public values enhancement seems substantial. However, it is necessary to look out for ways in which this potential can be harnessed conceptually. The public values that can be affected by co-creation as described in the previous paragraph, can be clustered. Taken from Jaspers and Steen

(2019), a categorization of public values relating to (1) the service itself, (2) the relationship between government actors and citizens and (3) the democratic quality of governance, will be further expanded. This will allow us to synthesize the scholarly debate within a public values framework. Co-creation will be analyzed in terms of its value-generating capacity, rather than delimiting the unit of analysis to service-level outcomes. This emerging way of valuing public service delivery allows for a full appreciation of the potential of co-creation (Bovaird and Loeffler 2012; Loeffler and Bovaird 2020b). Therefore, such a framework provides avenues for further theorizing as well as guidance to evaluate co-creation initiatives.

## **Methodology**

We relied on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 protocol for conducting this systematic literature review. By facilitating adequate recording of the review process, the protocol ensures transparency and replicability of the review (Liberati et al. 2009; Voorberg, Bekkers, and Tummers 2015).

## ***Research strategy***

\*insert table 1 here\*

We searched two electronic databases (Web of Science and Scopus) and narrowed our search to the ‘Social Sciences Citation Index’ and the ‘Emerging Sources Citations Index’ in Web of Science and the subject area of ‘social sciences’ in Scopus. The topic of studies eligible for this review related to ‘the effects of co-creation in public service provision’. Our query is based on an in-depth analysis of 33 publications. These records

were selected as they deployed different definitions for co-creation, made use of different terms to denote effects and allowed us to develop four categories of terms to build our search query. Table 1 shows the four categories and denominators used in our search query, our full search query can be found in appendix I.

We searched for both empirical as well as conceptual/theoretical works in the form of journal articles, books, book chapters, conference proceedings and presentations. This approach was both feasible and desirable, as research on this specific topic is said to be rather scarce (Voorberg, Bekkers, and Tummers 2015; Brandsen, Steen, and Verschuere 2018; Jaspers and Steen 2019). Regarding the report eligibility criteria, no year restriction was imposed. This allows us to fully capture the body of research investigating the effects of co-creation in public services and to track its evolution over time. Both published as well as early access sources were eligible for the review. We only searched for records in English, facilitating replicability of this systematic review (Amorim Lopes and Alves 2020). A table containing our eligibility criteria can be found in appendix II.

The search resulted in the identification of 1261 records. After deletion of duplicates, 897 records were retained to be screened on title and abstract. For this screening, we used an automated screening tool, ASReview. The ASReview software uses active learning algorithms to ensure a sped up review process (van de Schoot et al. 2021). We trained the AI tool using 15 relevant and 5 irrelevant records to then automatically rank records by relevance. As a rule, we decided to stop title and abstract screening once the tool brought up 100 irrelevant records consecutively. The second and third author both independently checked 55 of these irrelevant records identified by the first author. This way, the 100 irrelevant records were checked twice, of which 10

records were screened by all three authors. The authors found no conflicts in assessing the non-inclusion of all 100 records.

Of the 641 records screened on abstract and title, 95 were retained for full text screening, which were then sought for retrieval. If a book chapter and the book in which was published were both in the list, we deleted the book chapter from the list and screened the entire book. This to avoid duplicates and ensure inclusion of all relevant sources brought up by the search query in our review. We retained 87 records for full text screening (records not retrieved: n = 5; book chapters deleted if book in record list: n = 3). We excluded 33 records after full text screening. Reasons for exclusion were a minor focus on effects (n = 23), a focus on private rather than public services (n = 4) and a focus on knowledge co-creation rather than public service co-production/co-creation (n = 6).

In total, we obtained a sample of 55 records. When screening the books in our sample (n = 2), it became clear that not all chapters were useful in light of the topic of this review. We decided to only include relevant book chapters in our sample. In doing so, 66 sources were included in our sample (journal articles: n = 50; book chapters: n = 16). It has to be noted that one book (*The Palgrave Handbook of Co-Production of Public Services and Outcomes*, 2021) did not come up in our search results. Although, a combination of all categories from our search query can be found on the back cover and it was published within the selected timeframe. The second author remarked the absence of this valuable source when expert-checking the final sample. We decided to include the relevant chapters of the book. In our final sample, we thus have 71 sources (journal articles: n = 50; book chapters: n = 21).

### ***Synthesis and analysis of sources***

\*insert figure 1 here\*

All 71 sources included in the review were coded using NVivo, ensuring an extensive and “trustworthy” coding process (Amorim Lopes and Alves 2020, 563). In line with Flemig and Osborne (2019) who rely on a Gioia methodology (Gioia, Corley, and Hamilton 2013), we were sensitive to capture aspects related to the implementation of co-creation initiatives studied, the context and the potential of these co-processes. With regard to the former two, our analysis is sensitive to the actors involved and the geographical focus of the co-creation initiative that is studied. Our coding also included the specific public service domain, if applicable. Additionally, we also coded the applied definitions of co-creation and we ensured labelling the study design of each source.

With regards to the effects of co-creation, the coding used by Jaspers and Steen (2019) to denote public values provided an adequate starting point but was non-exhaustive. The explorative nature of this review allowed to expand the coding list as provided by these authors in terms of public values generated by co-creation. This resulted in a public values framework with three categories in which we grouped effects related to (1) the service in itself, (2) the relationship between citizens and government, citizens and professionals and citizens amongst themselves, and (3) the democratic quality of governance. A few works made mention of an effect/multiple effects in more general terms, related to quality of life and well-being. We do not believe this constitutes a different category; rather, it is a more general approach that might be understood as an aggregate of the change in multiple public values.

Our final coding scheme can be found in appendix IV. All of this information was combined in an Excel-file to analyse the relevant data for each record (cf. Amorim Lopes and Alves 2020). A brief note on perceived and real effects is also in place. Although perceived effects are also considered real, they are not measurable as are real

effects. That is, often changes in public values such as empowerment, inclusion, but also learning, trust and even quality are perceived amongst participants rather than measurable. However, some effects, mostly related to the service, such as efficiency, inclusion and effectiveness might also be measured.

## **Results**

### ***Research trends***

Of the 71 publications included in the review, about one third is conceptual/theoretical (n = 26) and two thirds is empirical (n = 45). The empirical works included in the review are mostly single case studies (n = 23). Taken together with multiple case study works (n = 11), case studies are overrepresented in our sample, representing 73.33% of the empirical works in our sample. Nevertheless, other empirical methods, such as vignette (n = 2) and survey (n = 2) experiments but also mixed method works (n = 3) are found in our final sample. Only one quantitative case study is included in the review. With regards to the theoretical works, our sample contains three literature reviews. Either these deal with co-creation in general, and make a substantial mention of effects (n = 1) or focus on co-creation in a specific policy domain (n = 2). None of these is concerned specifically with effects, pointing towards scientific gap we aim to fill with this study. The other works either advance a theoretical elaboration (n = 20) or a conceptual reflection (n = 3) on the effects of co-creation. In table 2 below, an overview of the types of study and analytical method is offered.

\*insert table 2. here\*

Focusing on the empirical works in our sample, most research is carried out in a Global North context (n = 30). Not even one third (n = 14) of the publications studies co-creation in a Global South context. One work offers a comparative analysis of co-

creation initiatives in the Global South and the Global North. In spite of the geographical context, the questions asked evolve around the same lines. That is, empirical research either focuses on one public value or a few public values in a specific case (eg. Levasseur 2018; Bell et al. 2021), or multiple cases (eg. Sudhipongpracha 2018; Allen, Walnycki, and von Bertrab 2017). Similarly, experiments address the change in one (eg. Jakobsen and Andersen 2013) or multiple public values (eg. Thomsen, Baekgaard, and Jensen 2020) because of co-creation.

Focusing on the year of publication for the works included in the review, figure 2 clearly illustrates the growing academic interest into public value co-creation. Even taking into account one outlier (2018) that can be explained because of the inclusion of multiple book chapters of one book, the body of research into the effects of co-creation is growing. As the search was concluded on 28/01/2022, only the sources published in the first four weeks of 2022 that fall within the scope of this review are included (n = 1). For the sake of clarity of the figure, this value was left out.

\*insert Figure 2. here\*

Distinguishing between conceptual/theoretical works on the one hand, and empirical works on the other hand, both trends evolve similarly. The overall trend is clearly upwards, there is a stark increase in scholarly interest for co-creation effects starting from the mid-2010s onwards. In recent years, empirical works have become more prevalent. Looking at the journals in which this type of research is published, this journal features most prominently (n = 7), followed by publications in the *International Journal of Public Sector Management* (n = 4), *Voluntas* (n = 3), and *Public Administration Review* (n = 3). It has to be noted that research on public value co-creation has found its entry in these journals only 15 years ago, indicating its rather recent emergence.

Turning towards the policy domain studied in empirical works, social services (n = 16) and healthcare (n = 10) are most often researched. Education (n = 6) follows, before employment (n = 4) and public safety (n = 4). A complete overview can be found in table 3.

\*insert Table 3. here\*

As stated earlier, theoretical works included in the review rarely posit their argument within a specific policy domain. Rather, the theorizing often relates to (causal) mechanisms bringing about certain public values (Fledderus 2018) or the conceptualization of the potential of co-creation in more general terms (Verschuere, Brandsen, and Pestoff 2012) regardless of the policy domain. Nevertheless, some theoretical works are domain-specific, such as the literature reviews by Amorim Lopes and Alves (2020) (social services) and Mees, Crabbe, and Driessen (2017) (water management), and a book chapter by Robert, Donetto, and Williams (2020) (healthcare). Some theoretical works cover multiple policy domains, such as Loeffler (2021) (health, social services and public safety).

### ***Public Values Co-Creation***

As stated before, for each publication included in the review, the public value(s) it studied were coded. For this, we used a public values framework. Taken from Jaspers and Steen (2019), we identified three preliminary categories (better services, better relationship, and better democratic quality), which were altered to services, relationships, and democratic quality. For each category, different public values were identified. Moreover, efficiency and effectiveness, for example, were assigned to the category 'better services' (Jaspers and Steen 2019). We supplemented this list with effects found within the publications included in the review. Our final coding scheme can be found in appendix IV. Apart from the effect related to 'quality of life and well-

being', all supplemented codes can be accommodated in one of the three categories. As stated earlier, we do not believe this constitutes a different category; rather, it is a more general approach that might be understood as an aggregate of the change in multiple public values.

The results of our analysis reveal that most attention is devoted to the study of public values co-creation in terms of democratic quality (86 mentions) in absolute terms. The service effects (68 mentions), and relationship effects are studied significantly less (44 mentions). In both empirical and theoretical works, most attention is devoted to the study of co-creation effects within the democratic quality category. What becomes apparent when distinguishing between mentions within empirical or conceptual/theoretical works, is that the latter rather scarcely studies relationship effects. In other words, there are only few theoretical works concerned with effects on the level of the relationship between citizens and (local) government, and citizens amongst themselves. An overview of the mentions per public value in each cluster can be found in table 4.

\*insert Table 4. here\*

Taking the number of mentions relatively to the number of public values for each category, the democratic quality category and service category hold more mentions per public value (on average 7) than the relationship categorie (on average 5). Zooming in, our results show that the service effects of efficiency and effectiveness are mentioned most in absolute terms (both 17 mentions), followed by the relationship public value of trust (15 mentions). The public values of accountability and empowerment, in the democratic quality category, follow thereafter (both 13 mentions).

\*insert Figure 3. here\*

However, merely summing the number of mentions of each public value identified does not help us to answer our research question. For this reason, our coding is sensitive to positive, neutral and negative mentions of public values. That is, not only did we distinguish between 30 public values within three categories, we also looked at whether these were considered beneficial or detrimental (or neither or both) for public value co-creation. Our results show that, in general, empirical works seem to find more positive articulations of co-creation effects than conceptual and theoretical works. Furthermore, as figure 3 shows, there are some similarities between empirical and theoretical works. For example, looking at the public value of trust, a similar pattern emerges for both (similar mentions for positive and negative effects, some neutral mentions). For effectiveness, a similar result can be seen, while this does not hold true for efficiency (no negative mentions in empirical works). This figure also makes apparent that certain public values have been mentioned or assumed theoretically, but not studied empirically (such as legitimacy, responsibility and certainty) or the other way around (for the public values of integration, flexibility in decision-making and both consideration values). Only few works made explicit mention of public value co-destruction. In the subsequent discussion, we will further explore the differences between research types, clusters and effect mentions.

## **Discussion**

### ***The State of the Literature on Public Values Co-Creation***

Having analysed the literature, we can confidently reiterate that research into the effects of co-creation is rather scarce. Empirical research, which is rather slowly overtaking the share of theoretical studies, is particularly scarce. As asserted, there seems to be a growing interest in the study of co-creation effects, but the body of

literature seems largely immature. With a few exceptions (for efficiency and effectiveness, trust, and accountability, empowerment and inclusion), the mentions of specific public values in different works is very limited. Strong, generable conclusions in terms of public value mentions according to research types are thus hard to make. Recalling the examples for trust and equity in service delivery, some studies find positive effects of co-creation (Bentzen 2022; Farr 2016), while others find insignificant or even negative results (Kang and Van Ryzin 2019; Flemig and Osborne 2019).

Yet, different avenues for putting these findings in perspective exist. Firstly, we build on our broad conceptualization of co-creation, as *different* instances of co-creation might differently impact certain public values. As stated earlier, different typologies to delineate co-production have been developed. Looking at the typology of Nabatchi, Sancino, and Sicilia (2017), differing between types of co-production in terms of the service cycle, we might ask ourselves whether individual co-delivery yields different effects compared to group co-design or community co-commissioning. We cannot sensibly provide an answer as our sample size does not allow for enough examples across the different types of co-production to be identified along these terms. Nevertheless, looking at the definitions that are used to cover co-creation might enlighten us a little bit. We find that both Farr (2016) and Flemig and Osborne (2019) conceptualize co-production along similar terms, while still finding different effects with regards to equity in service delivery. Regarding differences in trust found between Kang and Van Ryzin (2019) and Bentzen (2022), the difference cannot be attributed to irreconcilable conceptualizations neither. Although the former deploys Ostrom's

original definition<sup>1</sup>, the latter conceptualizes co-creation in encompassing terms as we do in this paper but is also concerned with the delivery stage of the service. Hence, both works study similar initiatives, while still finding different results.

Secondly, then, methodological differences might be related to diverging results for one and the same public value. As we discussed, most research into the effects of co-creation are (multiple) case studies. Case studies are useful to engage in an in-depth analysis of specific (or multiple) social phenomena (Yin 2018). They are an ideal methodology to study complex, real-life events; yet, do not offer much in terms of generalization of the findings (Yin 2018). This might provide an answer as to why certain case studies distinguish positive effects with regards to, for example, accountability (Tuurnas, Stenvall, and Rannisto 2016) or trust (Tsai 2011; Sudhipongpracha and Wongpredee 2016) while others reveal negative effects for the same values (Levasseur 2018; Bovaird 2007; Fledderus 2015a). A valid option to enhance external validity is to complement case studies with quantitative methods, such as survey research. One study that does this can be found in our sample, and offers a very nuanced view with regards to effects on trust (Tsai 2011). One other work only makes use of quantitative techniques to study a case (Rêgo, Teixeira, and Da Silva Filho 2019), providing some generable results for service-level effects in judiciary co-creation initiatives.

Other empirical methods, such as field, survey and vignette experiments also feature in our sample. We find that most research making use of these methods focuses

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<sup>1</sup> Ostrom (1996) defines co-production as “[...] the process through which inputs used to provide a good or service are contributed by individuals who are not in the same organization [...]. Co-production implies that citizens can play an active role in producing public goods and services of consequence to them.”

on very specific public value(s) while case studies are more explorative in nature within this strain of literature. Although often producing findings more generable than prior discussed case studies, these experiments isolate co-creation research from the real-life context in which the initiatives occur. More often than not, however, these effects cannot be isolated from the context in which they happen, as show the differing findings with regards to the same public values which were illustrated above for accountability and trust. However, (survey) experiments are believed useful in some regards. Fledderus (2015b), for example, shows with a complementary vignette experiment that, in more generable terms, trust and co-creation are not necessarily positively related when comparing co-created to non-co-created services. However, given the scarcity of the number of experiments in our sample, it is not possible to determine their further value for the study of co-creation effects. This echoes well with our final remark on the state of the literature on this topic, namely that only a few methods are being used to study co-creation effects. Recalling the limited diversity of methods as shown in Table 3., and the extensive use of case studies, we find that a more intensive use of other studies might further our understanding of their value for the study of co-creation effects.

### ***Co-Creating Public Values?***

Turning to the value-enhancing role that is often attributed to co-creation, this review asked the following question: What is the empirical evidence for the normative claim that co-creation enhances public values? In line with our above assertion that the literature on the effects of co-creation is scarce we refrain from simply confirming the positive assumptions underpinning the use of co-creation. Co-creation is said to have a value-enhancing effect in most of the studies in our sample (see also Figure 3.). Interestingly, for the most part, empirical research seems to be more positive than

theoretical elaborations in terms of public value co-creation. A twofold reflection in this regard relates to the phenomena that are chosen to be studied empirically and the positive results bias: are we, as scientists, biased towards cases that yield evidence for the assumptions we build on? Do we tend to favor the publication of these cases over those where negative outcomes are found? Or, theoretically, are we too sceptical and possibly halting innovation? Because of the immaturity of the field, it remains too early to claim that we understand the effects of co-creation. However, the potential for public value co-creation is undeniable. Optimistically approaching our limited findings: more research is necessary to further understand the value-enhancing potential of co-creation.

Zooming in on our three categories, public values at the service level seem – although less often studied – mostly positively impacted by co-creation. Even when theory is less optimistic (for example on quality, sustainability, efficiency and effectiveness), empirical works seemingly find little to no negative impact of co-creation. Studied the longest, this category also holds the most studied effects (particularly when it comes to efficiency and effectiveness). This is related to the underlying assumption that co-creation leads to more efficient and more effective services. For one part, and especially in social and (health)care services, co-design and co-implementation can provide valuable insights into needs and capacities of service users (Jaspers and Steen 2019; Liu, Wu, and McEntire 2021; Tu 2018; Yeo and Lee 2020). However, effectiveness and efficiency can also be negatively affected, as more hands for the same work not only make the work lighter, they sometimes also make it more messy (Loeffler, 2021a).

Secondly, in terms of relationship, co-creation certainly holds potential as well. That is, our review finds that co-creation provides learning opportunities for both citizens and organizing (local) government marked by positive articulations for the

public values of ‘civic education, self-development and learning’ and both ‘consideration of capacities’ and ‘consideration of needs’. Again, some caution needs to be advised in light of a potential positive results bias. However, co-creation seems to enable citizens to make better judgments, feel more empowered and possibly more satisfied with the service provision in general (Lindenmeier et al. 2021; Sudhipongpracha and Wongpredee 2016). With regards to trust, the picture appears more mixed. Work by Fledderus (2015a, 2018a) highlights the importance of commitment to co-creation initiatives for it to foster trust amongst participants. In addition, the environment in which the initiative takes place, should offer support for it to build trust. A vignette experiment researching the self-serving bias amongst other things has found that “[...] poor outcomes will be blamed on government because co-producers might feel left alone by government when the service fails” (Fledderus, 2015b, p. 652). This shows that trust is not necessarily enhanced because of co-creation. Even more so, it reveals the complexity of studying the effects of co-creation, which are found to not only relate to the co-creative process, but also to the outcomes of the co-creation initiative in itself. However offering some indications of a positive relation between trust and co-creation, generable claims with regards to this public value are still improper.

Finally, the third category of democratic quality values seems to be researched most. Whether this is related to the claim that involving citizens might re-invigorate contemporary Western democracies (Capolupo, Piscopo, and Annarumma 2020), we will leave in the middle. Only few values are studied rather often and push us to formulate a few uptakes. For example, because of our review we can confidently claim that co-creation enhances this value, as it does so across a wide range of policy domains and across a variety of contexts. For integration, our review finds that it is positively

affected by co-creation in local initiatives that seek to enhance the lives of migrants and/or asylum seekers (Strokosch and Osborne 2016; Vanleene and Verschuere 2018; Loeffler and Bovaird 2020a). As some of these values are theme-specific, such as integration, it might only be possible to make generalizations centered around a specific issue (eg. migration) or for a specific context (eg. local governance). With regards to accountability, the picture is again rather distorted. Our research found that it is often impacted negatively, as lines of responsibility become blurry because of the involvement of multiple actors (Bovaird, 2007; Levasseur, 2018; Williams et al., 2016). Nevertheless, studies that do show positive outcomes in terms of accountability, mention the importance of predefined tasks and goals, as well as the importance of constant communication (Bentzen, 2022; Tuurnas, Stenvall, & Rannisto, 2016).

On more general terms, context seems to be of major importance for the achievements of positive (democratic quality) effects. In that sense, the use of case studies to study the effects of co-creation proves a legitimate choice, especially if external validity is not the primary concern. In-depth case studies have shown that, for example, when dealing with vulnerable group, the role of professionals in achieving certain democratic quality effects such as inclusion and empowerment (Allen et al., 2017; Flemig & Osborne, 2019; Vanleene & Verschuere, 2018). This shows that a specific, challenging context might necessitate involvement of professionals for public values co-creation. When this involvement is ongoing, it can enhance innovation, ownership and even trust among participating citizens (Bentzen 2022). Another, yet related, factor is the policy domain. Although our review does not enable us to make domain-specific claims on the effects of co-creation, a recent contribution highlights what our work hints at: some domains tend to be more tailored to co-creation than

others (Straussman 2020). This corroborates our finding that certain policy domains are studied more often than others.

Lastly, these considerations leave us to reflect on the study of public values co-creation. Can effects be studied in isolation, such as in experiments, independent of the context in which they occur? As we have seen, especially in these last point of discussion, is that context and public value enhancement seem to be intimately related. Context moderates our findings, as we find both positive and negative articulations for the same public values. Context also dictates what actors should be involved when aiming to achieve democratic results with vulnerable groups (Hjortskov, Andersen, and Jakobsen 2018). This is especially true for the values of inclusion, empowerment and social cohesion in community building (Brandsen 2020; Vanleene and Verschuere 2018) and mobility challenges (Bell et al. 2021). Another example is interrelatedness between integration, participation and empowerment. Both in the case of asylum seekers (Strokosch and Osborne 2016) and the reintegration of offenders in the community (Loeffler and Bovaird 2020a), scholars find positive outcomes because of co-creation. However, this is highly contingent with the value of trust (relationship) which in the cases here remains an important challenge given the “marginalised nature” of the co-producers involved (Strokosch and Osborne 2016, 688). These examples show that the interrelatedness between effects of co-creation are not cluster-bound, although these relations might seem more straightforward. Yet, mostly this shows that attention to the interrelatedness between public values is necessary when studying the effects of co-creation.

## **Conclusion**

In this review we have taken stock of the literature on public value co-creation.

Asserting the scarcity of the literature on this topic, our aim was also to explore and

evaluate the available empirical evidence for the claim that co-creation sparks positive effects in terms of public values. We have shown that co-creation indeed holds an important potential in terms of public value enhancement. By coding our sample of 71 records (journal articles and book chapters) following three non-exhaustive categories as developed Jaspers and Steen (2019), we appreciated the potential of co-creation at the service, relationship, and democratic quality level with democratic quality values being studied most often. As we complemented this framework with public values identified in our sample, we validated the use of this framework for studying the effects of co-creation in public services.

The (limited) share of empirical research on the effects of co-creation is mostly positive. Although we need to offer a few important considerations. Firstly, the context in which co-creation takes place is of uttermost importance as it might dictate which actors to involve and when in order to attain positive results (cf. inclusion of vulnerable groups necessitates facilitation). Additionally, some policy fields might be more suitable to attain positive effects than others, because they are simply better suited to accommodate co-creative endeavours. Social and (health)care co-creation seems to be best equipped for such innovative forms of democracy. Thirdly, the possible interrelatedness between public values constitutes an important aspect in the realization of public values through co-creation. Different methodologies could be used to complement the current use of intensive, detailed cases to enhance external validity (eg. survey-research) and draw causal links (eg. Qualitative Comparative Analysis, Group Model Building). Co-destruction could also more intensively studied in order to advance our understanding of what contexts and policy domains are better suited for co-creating public values than others. More endeavors into this topic are in place in order

to further assess the normative assumptions that push (local) governments to actively include citizens in the co-creation of public values.

**Disclosure statement**

The authors report there are no competing interests to declare.

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## Appendices

### Appendix I. Search Query

Information source	Search query
Scopus	( TITLE ( "co-produc*" OR "coproduc*" OR "co-creat*" OR "co-destruct*" OR "co-commission*" OR "co-design*" OR "co-deliver*" OR "co-evaluat*" OR "co-monitor*" OR "co-asses*" OR "co-plan*" OR "co-prioritis*" OR "co-manag*" ) AND TITLE ( "effect*" OR "outcome*" OR "impact*" OR "cost*" OR "benefit*" OR "implication*" OR "empowerment" OR "efficien*" OR "inefficien*" OR "effectiv*" OR "ineffectiv*" OR "legitima*" OR "illegitima*" OR "democratic" OR "undemocratic" OR "inclusi*" OR "exclusi*" OR "satisfact*" OR "dissatisfact*" OR "accountab*" OR "unaccountab*" OR "public value*" OR "trust*" OR "distrust*" OR "performan*" OR "fair*" OR "unfair*" OR "equit*" OR "inequit*" OR "responsib*" OR "quality" OR "social capital" ) AND TITLE ( "citizen*" OR "participant*" OR "user*" OR "client*" ) ) OR ( ABS ( "co-produc*" OR "coproduc*" OR "co-creat*" OR "co-destruct*" OR "co-commission*" OR "co-design*" OR "co-deliver*" OR "co-evaluat*" OR "co-monitor*" OR "co-asses*" OR "co-plan*" OR "co-prioritis*" OR "co-manag*" ) AND ABS ( "effect*" OR "outcome*" OR "impact*" OR "cost*" OR "benefit*" OR "implication*" OR "empowerment" OR "efficien*" OR "inefficien*" OR "effectiv*" OR "ineffectiv*" OR "legitima*" OR "illegitima*" OR "democratic" OR "undemocratic" OR "inclusi*" OR "exclusi*" OR "satisfact*" OR "dissatisfact*" OR "accountab*" OR "unaccountab*" OR "public value*" OR "trust*" OR "distrust*" OR "performan*" OR "fair*" OR "unfair*" OR "equit*" OR "inequit*" OR "responsib*" OR "quality" OR "social capital" ) AND ABS ( "public" ) AND ABS ( "citizen*" OR "participant*" OR "user*" OR "client*" ) ) AND ( LIMIT-TO ( SUBJAREA,"SOCI" ) ) AND ( LIMIT-TO ( LANGUAGE,"English" ) ) )
Web of Science	‘(TI=(“co-produc*” OR “coproduc*” OR “co-creat*” OR “co-destruct*” OR “co-commission*” OR “co-design*” OR “co-deliver*” OR “co-evaluat*” OR “co-monitor*” OR “co-asses*” OR “co-plan*” OR “co-prioritis*” OR “co-manag*”) AND TI=(“effect*” OR “outcome*” OR “impact*” OR “cost*” OR “benefit*” OR “implication*” OR “empowerment” OR “efficien*” OR “inefficien*” OR “effectiv*” OR “ineffectiv*” OR “legitima*” OR “illegitima*” OR “democratic” OR “undemocratic” OR “inclusi*” OR “exclusi*” OR “satisfact*” OR “dissatisfact*” OR “accountab*” OR “unaccountab*” OR “public value*” OR “trust*” OR “distrust*” OR “performan*” OR “fair*” OR “unfair*” OR “equit*” OR “inequit*” OR “responsib*” OR “quality” OR “social capital”) AND TI=(“public”) AND TI=(“citizen*” OR “participant*” OR “user*” OR “client*”)) OR (AB=(“co-produc*” OR “coproduc*” OR “co-creat*” OR “co-destruct*” OR “co-commission*” OR “co-design*” OR “co-deliver*” OR “co-evaluat*” OR “co-monitor*” OR “co-asses*” OR “co-plan*” OR “co-prioritis*” OR “co-manag*”) AND AB=(“effect*” OR “outcome*” OR “impact*” OR “cost*” OR “benefit*” OR “implication*” OR “empowerment” OR “efficien*” OR “inefficien*” OR “effectiv*” OR “ineffectiv*” OR “legitima*” OR “illegitima*” OR “democratic” OR “undemocratic” OR “inclusi*” OR “exclusi*” OR “satisfact*” OR “dissatisfact*” OR “accountab*” OR “unaccountab*” OR “public value*” OR “trust*” OR “distrust*” OR “performan*” OR “fair*” OR “unfair*” OR “equit*” OR “inequit*” OR “responsib*” OR “quality” OR “social capital”) AND AB=(“public”) AND AB=(“citizen*” OR “participant*” OR “user*” OR “client*”)); limited to Social Science Citation Index + Emerging Sources Citation Index and limited to language = English

### Appendix II. Eligibility criteria

Eligibility criteria	
Study eligibility	Type of studies: records dealing with co-production and/or co-creation in public services and extensively (at least one section) deal with their effects.
	Topic of co-creation and co-production: studies should deal with co-produced and/or co-created public services and their outcomes (see 8.1. search query)
	Study design: both empirical as well as conceptual/theoretical works are included in the review
Report eligibility	Language: only English sources are included in the review
	Publication status: only published and early access works are included in the review
	Year of publication: no restrictions are imposed in order to fully capture the academic debate

### Appendix III. Final sample

Allen, A., Walnycki, A., & von Bertrab, É. (2017). The Co-production of Water Justice in Latin American Cities. In (pp. 175-193): New York: Palgrave Macmillan US.

Amorim Lopes, T. S., & Alves, H. (2020). Coproduction and cocreation in public care services: a systematic review. The International journal of public sector management, 33(5), 561-578. doi:10.1108/IJPSM-10-2019-0259

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### ***Appendix IV. Coding scheme***

Coding following a public value framework	
Democratic quality	Participation
	Empowerment
	Inclusion
	Social capital
	Accountability
	Ownership
	Equity in service delivery/outcomes
	Integration
	Legitimacy
	Flexibility in decision-making
	Social cohesion
	Transparency
Service	Efficiency
	Effectiveness
	Quality
	Satisfaction
	Sustainability
	Access
	Mobilization of otherwise unavailable community resources
	Service diversity & innovation
	Uncertainty
Relationship	Civic education, self-development & learning
	Trust
	Consideration of needs
	Consideration of capacities
	Reciprocity
	Individual freedom
	Impacting working conditions of professionals
	Dependencies
	Power relations
Responsibility	
General	Quality of life and well-being

Table 1. Search query categories and denominators.

<b>Co-creation</b>	<b>Effects</b>	<b>Public Service</b>	<b>Citizen involvement</b>
co-creation	effects	public	citizen
co(-)production	outcomes		participant
co-destruction	impact		user
co-commission	cost		client
co-design	benefit		
co-deliver	implication		
co-evaluate	(dis)empowerment		
co-monitor	(in)efficiency		
co-assess	(in)effectivity		
co-plan	(il)legitimate		
co-prioritise	(un)democratic		
co-manage	inclusion/exclusion		
	(dis)satisfaction		
	(un)accountability		
	(dis)trust		
	(un)fairness		
	(in)equity		
	(i)responsibility		
	quality		
	social capital		
Performance			
public value			

Table 2. Types of study included in final sample.

<b>Type of study</b>	<b>#records</b>
Conceptual	3
Theoretical	20
Theoretical - Literature Review	1
Theoretical - Literature Review (Systematic)	2
Empirical - field experiment	3
Empirical - qualitative + quantitative	3
Empirical - qualitative case study	23
Empirical - qualitative case study (multiple)	11
Empirical - quantitative case study	1
Empirical - survey experiment	2
Empirical - vignette experiment	2

Table 3. Number of empirical records mentioning a specific policy domain.

<b>Policy domain</b>	<b>#empirical records</b>
Agriculture	1
Childcare	3
Courts	2
Education	6
Employment	4
Energy	2
Health	10
Public safety	4
Public space	3
Public transport	3
Sanitation	1
Social services	16
Waste	2
Water	3

Table 4. Number of Public Values mentions per research type, total per public value, total per categorie.

Cat.	Public Value	Research type		Total PV	Total Cat.
		Theoretical	Empirical		
Service	Access	1	2	<b>3</b>	<b>68</b>
	Certainty	1	0	<b>1</b>	
	Sustainability	1	2	<b>3</b>	
	Mobilization of otherwise unavailable community resources	1	3	<b>4</b>	
	Quality	6	3	<b>9</b>	
	Satisfaction	1	3	<b>4</b>	
	Service diversity & innovation	5	5	<b>10</b>	
	Efficiency	11	6	<b>17</b>	
	Effectiveness	8	9	<b>17</b>	
Relationship	Civic education, self-development & learning	3	4	<b>7</b>	<b>44</b>
	Consideration of capacities	0	3	<b>3</b>	
	Consideration of needs	0	4	<b>4</b>	
	Impacting working conditions of public service workers	2	3	<b>5</b>	
	Individual freedom	1	2	<b>3</b>	
	Power relations	2	1	<b>3</b>	
	Reciprocity	1	2	<b>3</b>	
	Responsibility	1	0	<b>1</b>	

	Trust	7	8	<b>15</b>	
Democratic Quality	Legitimacy	6	0	<b>6</b>	<b>86</b>
	Flexibility in decision-making	0	1	<b>1</b>	
	Social Capital	2	2	<b>4</b>	
	Integration	0	3	<b>3</b>	
	Participation	3	3	<b>6</b>	
	Transparency	3	3	<b>6</b>	
	Ownership	2	4	<b>6</b>	
	Accountability	8	5	<b>13</b>	
	Equity in service delivery/outcomes	2	6	<b>8</b>	
	Empowerment	6	7	<b>13</b>	
	Inclusion	4	7	<b>11</b>	
	Social cohesion	2	7	<b>9</b>	

Figure 1. Flow Chart.

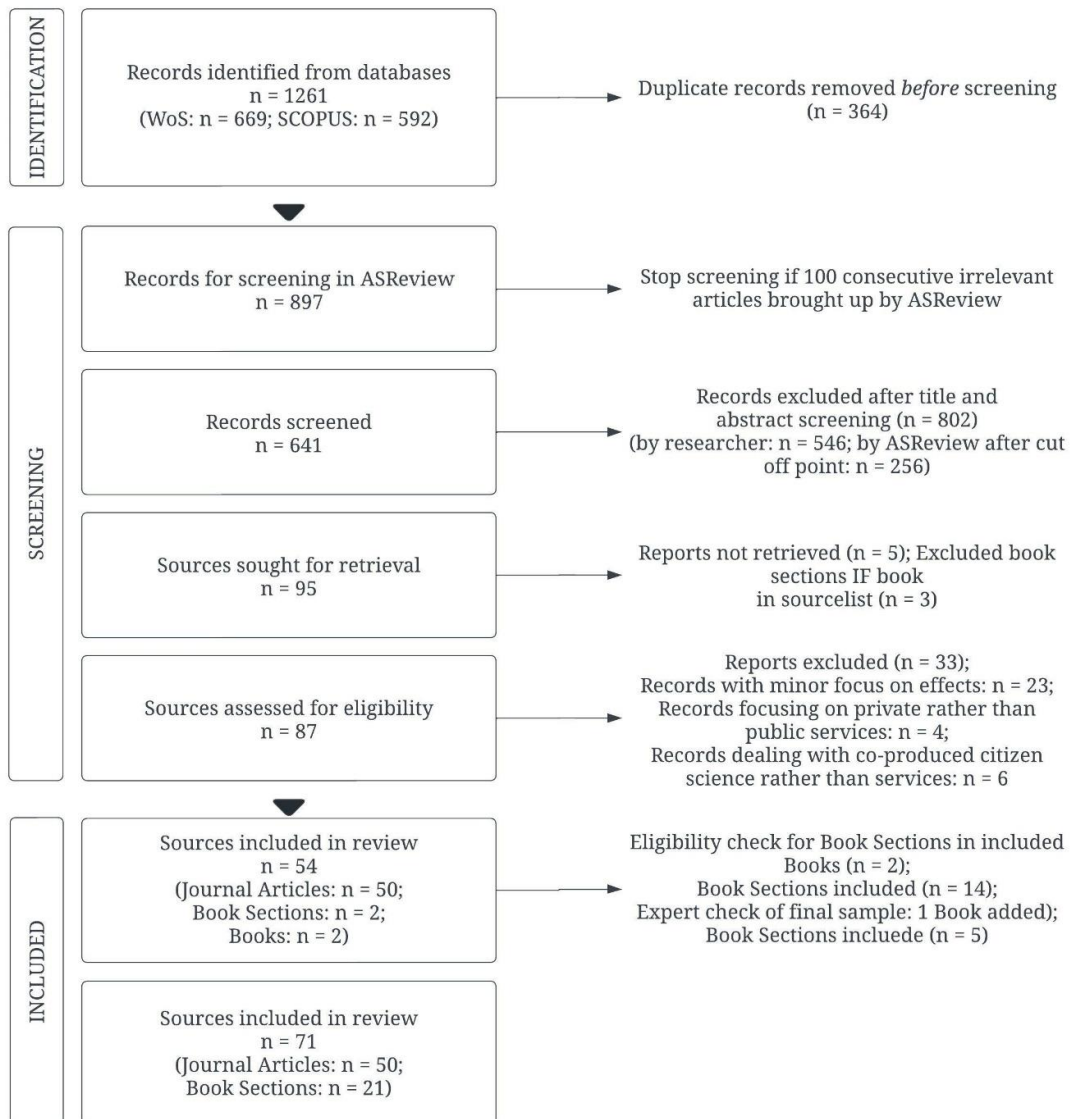


Figure 2. Number of empirical/theoretical publications per year included in final sample with trend lines.

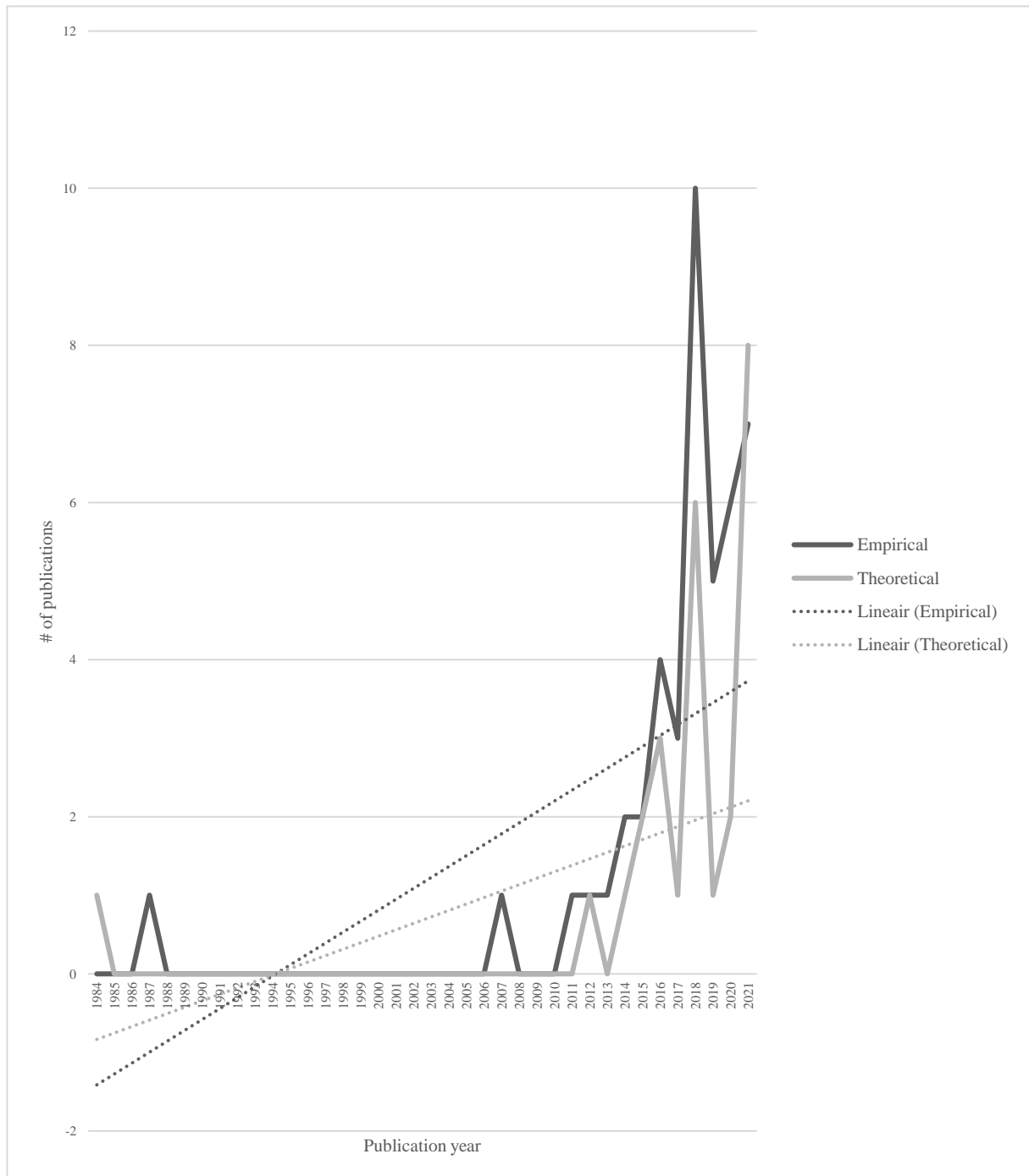


Figure 3. Number of positive, neutral and negative public value mentions in empirical/theoretical works.

