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Theories and theorizing in public administration: A systematic review

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Abstract

Theories and theorizing are central to scholarship on public administration (PA). Only a few attempts have been made to review the theories applied in PA broadly and systematically, to take stock of the theoretical repertoire, and to engage scholars in critical reflection on how they “do” theorizing. This study analyzes the theoretical landscape of PA scholarship with a novel combination of bibliometrics and natural language processing. A “tree of theories” shows how 150 theories merge into one body of scholarship, with 15 theories at the core. The theories vary considerably in terms of disciplinary background, methodological choices, geographical settings, author diversity, and reach beyond academia. While the results indicate the plurality and vitality of the field, they also raise concerns about how core theories show limited geographical dispersion and low societal relevance. These concerns are further fueled by an apparent schism between micro and macro theories.

Evidence for Practice

- Consider theories as important tools for public administration scholars, not only in advancing research but also in giving practical advice.
- Do not shy away from theory-driven, method-heavy research articles because they often present more practical implications than articles that demonstrate less use of methods.
- Note that the most central theories are primarily informed by evidence from the Western world, which means that the practical implications may not be generalizable to other settings.
- Expect theory-driven articles with evidence from non-Western contexts to be particularly relevant to social and ecological challenges.
- Do not expect practical and societal relevance to be a perfect fit: The more relevant a theory is in practical terms, the less it is relevant for broader social issues and vice versa.

INTRODUCTION

The important role of theory and theory-building for public administration (PA) scholarship and practice has frequently and prominently been acknowledged (e.g., Emerson, 2022; Frederickson et al., 2015; Riccucci, 2010). Theories in this field describe the many faces of PA, help to explain and understand it as a real-life phenomenon, and could allow for predictions of what is likely to happen under which conditions (Frederickson et al., 2015). These qualities of

good theories make them useful not only in scholarly conversations but also in practical advice that scholars give to public managers and policy makers. Even in a field as applied as PA, theories are an asset rather than a liability because, in the best case, they produce reliable knowledge for an otherwise uncertain and overcomplex world. PA is, therefore, well suited to prove the famous dictum that nothing is as practical as a good theory (Lewin, 1943).

In contrast to the broad acknowledgment of theory-building as an engine of scholarly progress and practical

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advice, few attempts have been made to review the theories that PA scholars apply in their research. Several contributions track the evolution of the field or its subfields, but their focus is on influential authors, substantive topics, or research methods, rather than on theories (e.g., Bingham & Bowen, 1994; Dunsire, 1999; Miller & Jaja, 2005). Such reviews often have an additional focus on particular journals (e.g., Bingham & Bowen, 1994), geographic regions (e.g., Rhodes, 1991), or text genres (e.g., Miller & Jaja, 2005). Some books or book chapters focus more decisively on theories but present only a subset of them, such as organizational PA theories (Christensen, 2022; Harmon & Mayer, 1986). A closer approximation of the theoretical repertoire of PA is achieved by collections of seminal contributions to the field because those editions and volumes include a range of articles that have paved the way for theoretical traditions (Lodge et al., 2016; Shafritz & Hyde, 2017). However, not all “classics” of PA are associated with a theory that has emerged from them, nor can every theory be traced to a particular and singular work. Therefore, readers in search of an overview and systematization of PA theories are left with only a few textbooks (e.g., Frederickson et al., 2015; Sharma et al., 2010) and review articles (e.g., Thornhill & van Dijk, 2010; van der Walldt, 2017). The authors of these publications themselves acknowledge that the collections they present are highly selective, as they focus on only a few theories they consider to be particularly important, influential, or promising. Accordingly, they reflect the authors’ idiosyncratic accounts of the field and dramatically fall short of “the myriad important theories in use or under study” (Emerson, 2022, p. 3).

Besides their scope, the available reviews of theories in PA have additional limitations that result from their top-down approach. The authors of such reviews not only make top-down choices on which theories to include in the first place; they also decide on how to group them into families or traditions (van der Walldt, 2017). However, presenting theories separately and arranging them in a well-ordered structure conveys a tidy, yet distorted, picture of the field because theoretical development has never been as straightforward, nor have theories ever been as clear-cut as such order would suggest. Emphasizing differences while neglecting overlap between theories and the many opportunities they offer for fruitful exchange might give rise to theoretical silos and epistemic barriers, rather than facilitating new insights into PA. In contrast, revisiting theories where they are used in the practice of theorizing is likely to reveal a rugged theoretical landscape. A bottom-up approach, departing from the micro-decisions that PA scholars make when they select and apply theories in their daily work, regardless of whether these theories originated in PA or in any other field, will draw this more chaotic picture. A part of the wilderness in PA scholarship is the notion of theory itself, given its various meanings in the literature (Abend, 2008).

Reviewing PA theories more comprehensively and integratively than before, and doing so bottom-up rather

than top-down, adds value because the process fosters a reflexive mode of theorizing. Holding the mirror up to theorists generates awareness of the many alternatives that any single theory has and directs attention to the interdependencies between theories. Reflexivity in theorizing also helps researchers to acknowledge the limitations that arise from the situated nature of human knowledge production. Just like the phenomenon of PA itself, theorizing about this phenomenon is deeply embedded in the social world and cannot be detached from the social context in which it occurs (Carboni et al., 2019; Riccucci, 2010). Reflexive practices reveal the contextual conditions under which theories have been built and thus reflect on the original theorizing process (Alvesson et al., 2008; Shepherd & Suddaby, 2017). From this perspective, the questions of when, where, by whom, and how a theory has been developed and applied are relevant to its scope and consequences. Reflections on such boundary conditions may bring the range of theories into question but also point to where theoretical reimagination and rejuvenation are possible and necessary.

The purpose of this article is to facilitate reflexive theorizing in PA through a systematic review of the theories that are used in the field, of the interdependencies between these theories, as well as of their situatedness in scholarly and practical contexts. Therefore, we ask: *What theories do PA scholars use in their work? How do these theories relate to each other and merge into one body of theorizing? How are they embedded into contexts that may affect theorizing?* We pursue these research questions using advanced methods of literature reviewing, combining bibliometric methods with natural language processing (NLP). Rather than reflecting our own top-down choice of theories, this review detects the field’s theoretical topography as collectively, yet not consciously, shaped by all scholars who have contributed to the body of PA literature in the past two decades. Through this large-scale bottom-up approach, our review provides broad coverage of theories and thus lives up to the field’s theoretical plurality that has often been acknowledged (e.g., Emerson, 2022; Frederickson et al., 2015). Further, our methods do not risk overestimating the separation and differences between theories because they also reveal how scholars repeatedly combine theories in their research. Patterns of interdependencies also emerge through the embeddedness of theories in similar disciplinary, methodological, geographical, demographic, societal, and practical contexts. Putting theories into these contexts encourages reflexive thinking about potential sources of contingencies in contemporary theorizing about PA.

In the next section, we limit the outline of data and methods to what is indispensable for the reader’s understanding of our approach, which can best be described as “NLP-enhanced bibliometrics” (Atanassova et al., 2019). We present the more detailed technical information

either in Appendix A or combined with the results in the following section, where selected information on the analytical procedure contributes immediately to a better understanding of the findings. We rely heavily on visualization techniques, as graphics provide intuitive orientation (Börner, 2010) and clear a path through the “theory jungle” (Koontz, 1961). In total, we extracted 150 theories from a body of 13,934 articles published in 21 journals in the first two decades of the 21st century. In presenting the results we focus on 15 core theories which we structure along five contextual aspects with which theories and theorizing are likely to co-evolve (i.e., disciplinary background, methodological choice, geographical setting, author diversity, societal and practical relevance). After these separate analyses, the final synthesis brings the previous results together and puts the theories in their multiple and interdependent contexts. We conclude with some reflections on the future of theories and theorizing in PA.

REVIEW METHODOLOGY

Applying NLP-enhanced bibliometrics

This review combines bibliometric methods and NLP to facilitate a systematic procedure of large-scale text analysis. Bibliometrics is the statistical analysis of scholarly communication, which is preferably (yet not exclusively) recorded in written communication in academic journals (Zupic & Čater, 2015). The most important units of bibliometric analysis are citations of documents, journals, or authors, which together establish a network of references between the publications in the field of study. Bibliometric methods have frequently and successfully been used to inform literature reviews in PA (e.g., LePere-Schloop & Nesbit, 2022; Pandey et al., 2023). A more recent development is one that combines bibliometric methods with NLP, and integrates the two techniques (Atanassova et al., 2019; Vogel & Hattke, 2022). At the crossroads of linguistics and computer science, NLP is the family of methods that process and analyze large amounts of natural language data (Indurkha & Damerau, 2012). Whereas bibliometrics is based on the appearance of textual elements without grasping their meaning, NLP delves into semantic structures to detect and exploit meaning in the content of texts. The two methods thus complement and enrich each other when integrated for the purpose of a literature review.

Bibliometrics and NLP, whether applied separately or combined, provide a bottom-up approach to literature reviewing. The grassroots approach of NLP-enhanced bibliometrics focuses on theories, which the community of PA scholars selects in their daily research. Through the identification of these theories in scholarly publications and a stepwise aggregation of their interrelationships, a collective representation of the theoretical field emerges. Single authors can contribute to this “big picture,” but

very few of them, if any, can fully envisage this picture until it has been extracted from the vast body of PA literature. However, crowdsourcing PA theories from the scholarly community by means of a large-scale text analysis does not completely suspend the authors’ account of the field. This is because the analytical procedure requires many technical decisions, while many intermediate results appearing in the course of this procedure require interpretation before the next step can be taken. We have made these decisions and interpretations based on the best insight our experience could give.

Collecting data

The first important decision was to focus on the two decades directly preceding the data collection process, that is, the period from 2000 to 2019. This period ensures the timeliness of our review and at the same time avoids highlighting short-lived trends in PA theorizing. Further, we needed to decide which publications to incorporate into the text corpus. First, we selected all English-language journals in the “Public Administration” category in the Social Science Citation Index (SSCI), which consisted of 40 journals. Next, we inspected all the journals that were not exclusively assigned to PA but cross-classified in multiple related categories. After removing periodicals without a clear PA focus, the list included 21 journals (Appendix B). We downloaded bibliographic metadata and cited references from the SSCI, as well as full texts from the publishers’ websites or other databases. The text corpus built in this way included 13,934 articles with 674,693 references and 131,650,778 words.

Defining theory to a minimal extent

Another important consideration was how to identify theories in the corpus. Importantly, we decided to start this iterative process with only a minimal definition of “theory” since PA scholars are highly likely to disagree on which theories belong to the field, and perhaps more fundamentally, on what a theory is at all (Emerson, 2022). This kind of disagreement is not exclusive to the field of PA; it is widespread in the social sciences. In an attempt to extract the various meanings of theory from the multiple uses of this notion in the literature, Abend (2008) finds no less than seven profoundly different kinds of meaning content. Recently, Rasmussen and Johannessen (2023) revisited and reviewed these meanings, suggesting that they do have common ground, given in the following definition: “A theory is a set of assumptions about one or several phenomena” (p. 3). We adopted this minimal notion of theory and deliberately left any further specification in this broad range of possible meanings to the authors who published in the selected journals. This decision was consistent with our bottom-up approach, of

which the intention was to embrace theoretical diversity by giving voice to the scholarly community.

Coding the texts for theories

The review started with all theories that members of the PA research community labeled as such at least once, regardless of whether the originators and proponents of the theory would have agreed on that label. We therefore searched the full texts of all articles for the keyword “theory,” coded the excerpts of the surrounding text, and compiled an initial dictionary of 1882 descriptors of theories in PA. Next, in a computer-assisted coding procedure, we identified theories in the main texts by means of search terms from the theory dictionary. The raw result of the coding procedure was a document-theory matrix that contained the information on which articles refer to which theories.

Reducing the network of theories

The initial list of theories was both too long and too “noisy” to achieve the review’s goals, therefore we initiated a systematic reduction procedure with technical support by a network analysis (for details, see Appendix A). After re-checking the list for obvious duplicates caused by misspellings and abbreviations, the document-theory matrix was converted to a theory-theory matrix, with the theories as row and column heads and the number of occurrences of any pair of theories as entries. This matrix can be conceived of as a network, with the theories as nodes and the number of joint appearances in the same articles as ties. When the threshold for the tie strength is increased, the network is successively thinned out. We stopped this reduction prematurely at a threshold that still left more than 400 theories in the network.

A reduction driven only technically risks not accounting for the nested structure of theories. Two theories can be related to each other in a hierarchical order, where one includes the other, or in which different labels, on closer inspection, might be referring to the same theory. Since the distinction between theories is blurred, an initial understanding of the theories and an interpretation of how they are interrelated was indispensable at this stage. We therefore drew on our expertise in the PA field and inspected every theory for its coherence and distinctiveness in the network. Supported by further bibliometric analyses, we contrasted the theories to determine either whether they were significantly different, or whether their similarities justified merging two (or more) theories. The review procedure at this stage was a highly iterative process because some decisions required a re-inspection of the bibliometric data once the first modifications had been implemented.

After the initial network of theories had been manually cleaned, it was still too large to provide convenient orientation. At a more selective threshold for the

minimum number of documents per theory, 150 theories remained (this even number was a coincidence). We stopped the procedure when we reached this point because we considered this network size, on the one hand, to reflect the field’s theoretical plurality and, on the other hand, to still allow for an overview that is neither under-representative nor overwhelming. This set of theories, and the relationships between them, served as the basis for all analyses, the results of which are presented in the next section.

Clustering theories and coding contexts of theorizing

As outlined above, the theory network is based on a co-occurrence matrix, and the processing of this matrix is not limited to network analysis. We further subjected it to a hierarchical cluster analysis to visualize a “tree” of PA theories. The resulting dendrogram indicates family relationships between theories and shows how they merge into one body of theorizing (Appendix C). This helped us to avoid overemphasizing differences and separation while neglecting the similarities and interrelationships of PA theories. Furthermore, the infographic in the [Supporting Online Information](#) visualizes scholarly and practical contexts that coincide with the application of the theories. For this purpose, we coded the articles according to other information than references to theories. We focused on five aspects: disciplinary background, methodological choice, geographical setting, author diversity, and relevance in practical and societal terms. We present our findings along these lines, giving our explanations of the underlying coding procedures in the results section, thus contributing more immediately to an understanding of the presented graphics. For more detailed information, we refer to Appendix A.

RESULTS

Table 1 presents the core theories in PA and their centrality aggregated over the two decades from 2000 to 2019. For the analysis, we applied two standard network measures: First, we ran a core/periphery partition (Borgatti & Everett, 2000), which separates a network core of highly cited and densely interwoven theories from a peripheral collection of less frequently applied and more loosely coupled theories. Second, we calculated the normalized degree centrality (Freeman, 1978), indicating how central each theory is beyond membership in the network core. In sum, 15 theories are identified as core to PA scholarship, thus they stand out in the full set of 150 theories. For reasons of brevity and clarity, the visualizations supporting our contextual analyses in the following sections include only the core theories. We consider the full spectrum of theories comprehensively in our synthesis in the

TABLE 1 Core theories in public administration.

Theory	Number of member-ships in network core (2000–2019)	Average degree centrality (normalized) (2000–2019)
Principal-agent theory	19	0.222
Institutional theory	18	0.231
Collaborative/network governance theory	16	0.184
Democracy theory	14	0.181
Public service motivation theory	12	0.122
Contingency theory	12	0.118
Social exchange theory	12	0.115
Systems theory	11	0.120
Effective government theory	10	0.112
Self-determination theory	8	0.094
Behavioral theory of the firm	8	0.087
Goal setting theory	8	0.085
Social learning theory	7	0.094
Social identity theory	5	0.077
Expectancy theory	4	0.069

concluding section, as well as in the infographic in the online information supporting this review.

PA theories and disciplinary backgrounds

PA is a multidisciplinary field (Corley & Sabharwal, 2010; Raadschelders, 2010; Wright, 2011). Most of its theorizing is not unique to PA; rather, it builds on theories scholars adopt from other disciplines, which they extend, elaborate, and refine by applying it to phenomena in the public sector. Reflexive theorizing in PA thus requires an understanding of the disciplinary contexts in which the applied theories originate and into which they continue to be embedded. The three disciplines that have been recognized as foundational to the study of PA are political science, management, and law (Rosenbloom, 1983; Wright, 2011). To the regret of many scholars (Osorio et al., 2021), the roots in and dialogue with legal studies seem to have been lost. In turn, many other disciplines have gained influence, most notably economics, sociology, and psychology (Hustedt et al., 2020; Vogel & Hattke, 2022).

We investigated in more depth how the theories are related to these five main disciplinary roots of contemporary PA (i.e., economics, management, political science, psychology, and sociology). For this purpose, we analyzed the co-occurrence of references to theories with references to journals related to these and other disciplines (Appendix A, step 7.1). Most references refer to journals in the field of PA (i.e., 33% of the coded references). In these terms, the most “native” theory in PA is effective government theory (Rainey & Steinbauer, 1999; 47%), whereas the most “foreign” is social exchange theory (Blau, 1964;

26%). Figure 1 shows how the core theories contextualize in the five neighboring disciplines. The figure shows four three-dimensional, multidisciplinary cubes each of which combines three of the five disciplines. Each cube includes the theories with the highest shares of co-occurring references to the respective disciplines, and within each cube, the position of the theories is determined by these shares. The most densely populated cubes are spanned across management, political science, and psychology (six core theories), as well as across management, political science, and sociology (five core theories). The color scales indicate the degree of multidisciplinaryity, which was calculated as diversity across the five disciplines (Appendix A). In these terms, the most multidisciplinary core theory is principal-agent theory (Jensen & Meckling, 1976), whereas the core theory with the lowest disciplinary diversity score is the social exchange theory (Blau, 1964).

PA theories and methodological choices

For self-reflection on the state of theorizing in PA, it is also fruitful to examine the methods by means of which scholars develop and apply the theories in the field. Theories describe, explain, and predict phenomena in the empirical world (Frederickson et al., 2015), and for these purposes, theorists need observational access to the theorized phenomena. Since scientific methods provide this access, they are in a symbiotic relationship with theories (Pandey, 2017). Research methods deliver information that enables theory-building in the first place; this role is primarily associated with qualitative methods. Specific methods also drive empirical tests of theories, as well as their extensions, refinements, and variations, which represent the main purpose of quantitative methods. Theoretical and methodological choices are often not made independently of one another because theories and methods combine into wider paradigms that build on the same philosophy of science (Ricucci, 2010). Accordingly, the interplay of theories and methods also discloses the paradigmatic orientations in the field.

Figure 2 shows a scatterplot of the core theories in the methodological space that spans quantitative and qualitative methods. The graph results from a probabilistic coding approach based on methodological keywords that appear in the full texts (Appendix A, step 7.2). The more a theory leans toward the quantitative (qualitative) axis, the higher the estimated probability that texts referring to that theory include a quantitative (qualitative) vocabulary. The overall methodological intensity is calculated as the frequency of terms referring to either or both method families and/or to generic methodological descriptions. The scatterplot shows two clusters of core theories. One cluster includes micro theories of PA, predominantly addressing individual motivation and behavior in public sector organizations and clearly leaning toward quantitative methods at high levels of methodological intensity. Among others, the core theory most

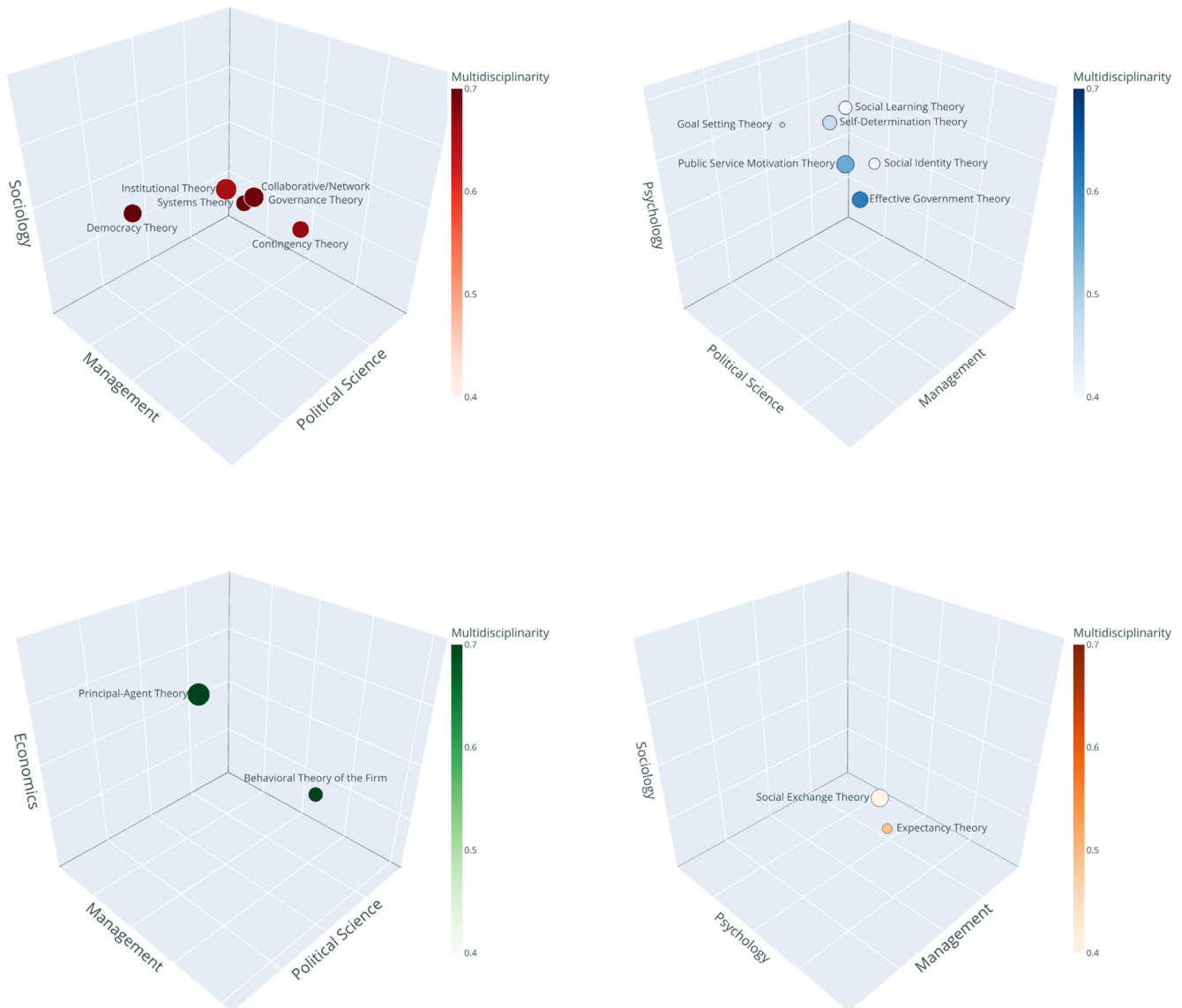


FIGURE 1 Core theories in disciplinary spaces.

heavily driven by methods, that is, self-determination theory (Ryan & Deci, 2000), is assigned to this cluster. The second cluster contains meso and macro theories of PA, which reach beyond the individual and address the organizational and societal level. Theories in this cluster are associated with a higher share of conceptual articles, a lower overall intensity of methods, and a more balanced application of both quantitative and qualitative methods. The cluster includes the theory whose users are least likely to use terms indicating empirical methodology, that is, democracy theory (Pateman, 1970).

PA theories and geographical settings

Theorizing about PA might be contingent on location. The PA field co-evolves with the phenomena under study

(Vogel & Hattke, 2022), and these phenomena evolve differently in different regions of the world (Peters, 2021). Accordingly, scholarly thinking about and understanding of PA could be limited in that publications emphasize some regions while neglecting others. The limited geographical dispersion of PA scholarship which currently marginalizes non-Western countries, particularly those in the global South, has indeed been voiced as a matter of concern (e.g., Bertelli et al., 2020; Gulrajani & Moloney, 2012). Given that PA theories are closely attached to the social phenomena being studied, their generalizability is threatened if they do not account for cross-national variation in the administrative systems' traditions and philosophies (Haque et al., 2021). For example, Eastern philosophies give rise to distinct approaches to PA which as yet are still rarely heard in theory and research (Ongaro, 2021).

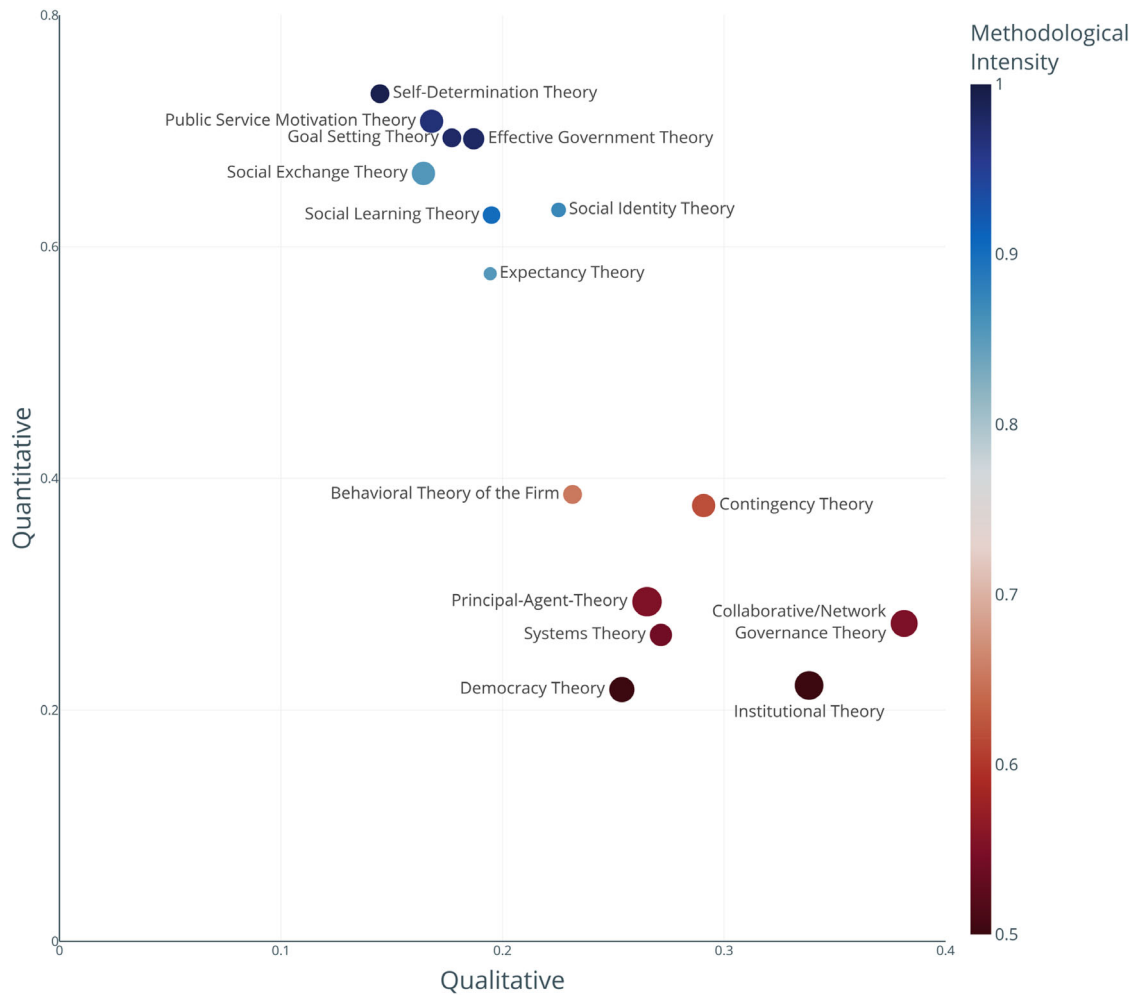


FIGURE 2 Core theories and research methods.

Figure 3 shows two world maps of PA theories and associated sunburst charts. The subgraphs are based on two different coding modes (Appendix A, step 7.3): First, we analyzed the institutional affiliations of authors to determine the countries in which their institutions are based. Second, we coded for the country names appearing in the full texts. The figure shows the aggregated results for all core theories. The limited geographical dispersion of PA scholarship is apparent from both the upper and the lower subgraphs: In terms of institutional affiliations, the majority of authors who use core theories are affiliated with North American (44.1%) or European (40.3%) institutions. Further, Asia and Oceania account for still visible shares of author affiliation, while South America and Africa are only marginally represented in PA theorizing accessible through English journals. The in-text references reflect a similarly overwhelming dominance of Western countries, with most related to countries in the Anglo-Saxon (56%) and continental European administrative traditions (29%). To a smaller, yet still considerable extent, theorists also refer to countries in the East Asian and Post-Soviet traditions, while empirical evidence from

other administrative traditions barely informs PA theorizing at all.

The geographic dispersion of the core theories shows interesting differences. The number of countries to which authors refer or to which they are affiliated correlates strongly with the number of appearances of a theory. In these terms, the “large” theories (Table 1) are also those that are most widely dispersed. However, the findings are more nuanced if dispersion is measured in terms of the diversity of countries that are clustered according to continents and administrative traditions. From this perspective, the most dispersed core theories are social exchange theory (Blau, 1964; in terms of institutional affiliation across continents) and self-determination theory (Ryan & Deci, 2000; in terms of in-text references across administrative traditions). A possible explanation for this finding is that such micro-level theories address universal norms and mechanisms of human interaction and motivation. Accordingly, they may travel around the globe more easily than other theories because they are relatively invariant across cultural contexts and thus applicable to many settings. In contrast, institutional theory

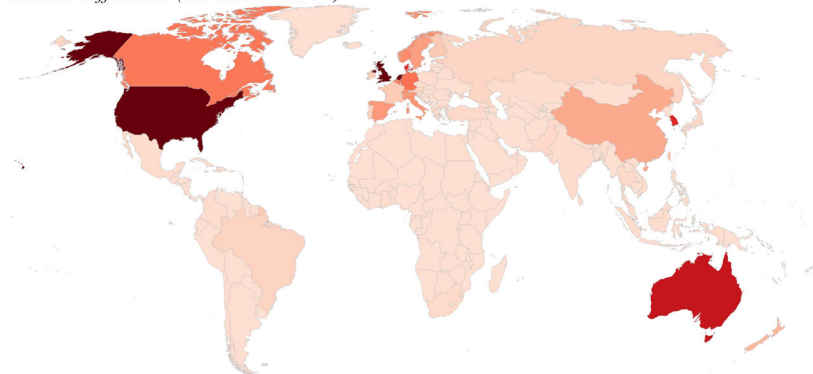
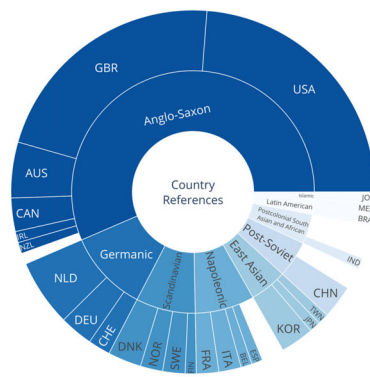
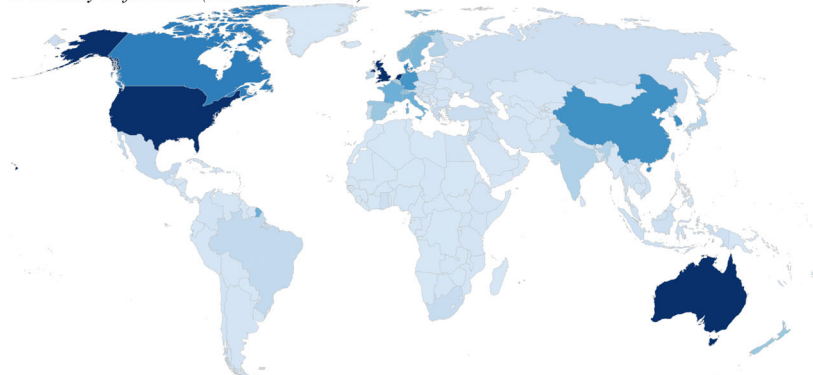
I Author Affiliation (All Core Theories)*II Country References (All Core Theories)*

FIGURE 3 Core theories in geographical settings.

(DiMaggio & Powell, 1983; affiliations across continents) and collaborative/network governance theory (Ansell & Gash, 2008; references across traditions) are the least dispersed core theories. These meso- and macro-level theories are more sensitive toward administrative systems and institutional environments, which vary strongly between countries. These contingencies could make theory transfer to countries outside the Western world more difficult than otherwise (Bertelli et al., 2020).

PA theories and author gender

Theories in PA are not only dedicated to social phenomena but are themselves also the outcomes of collaborative processes in the social world. Accordingly, it may matter for the process and outcomes of theorizing by whom theories are developed and applied (Ricucci, 2010). The gender of theorists is an important author characteristic to be considered here, for at least two reasons. First, scholars have increasingly attended to issues of gender equity and inclusion, both in the practical field of PA (e.g., McCandless et al., 2022; Shields & Elias, 2022) and in scholarship itself (e.g., Klobus et al., 2022; Scutelnicu & Knepper, 2019). Second, theorizing is arguably a creative endeavor, and creativity is a function of demographic diversity (e.g., Hundschell

et al., 2022). Hence, from both a normative and a functional perspective, gender representation among authors who engage with PA theories is of interest.

Our analysis focused on the gender of the first authors of articles dealing with PA theories. First authorship is the most visible and, therefore, matters more for tenure and promotion than co-authorship in a non-leading role (Scutelnicu & Knepper, 2019). Analyzing co-authorships without further differentiation could thus underestimate representational issues because, in the leading role of a first or sole author, minority genders may be even more underrepresented than across all authors. In a computer-assisted procedure, we extracted the first and middle names of authors from the metadata of the articles and coded these names for gender (Appendix A, step 7.4). The coding procedure was based on a large-scale open-source dictionary of names which is composed and designed for estimating the probability with which a particular name is associated with the male or female gender category. Unfortunately, such dictionaries are limited to a binary distinction of genders because non-binary genders cannot be concluded from names. Figure 4 presents the result in a bar chart. The color scale is not binary because the certainty with which the gender can be determined on a name basis varies. Gender representation is most balanced among authors who refer to social identity theory (e.g., Ashforth & Mael, 1989), whereas it is the most

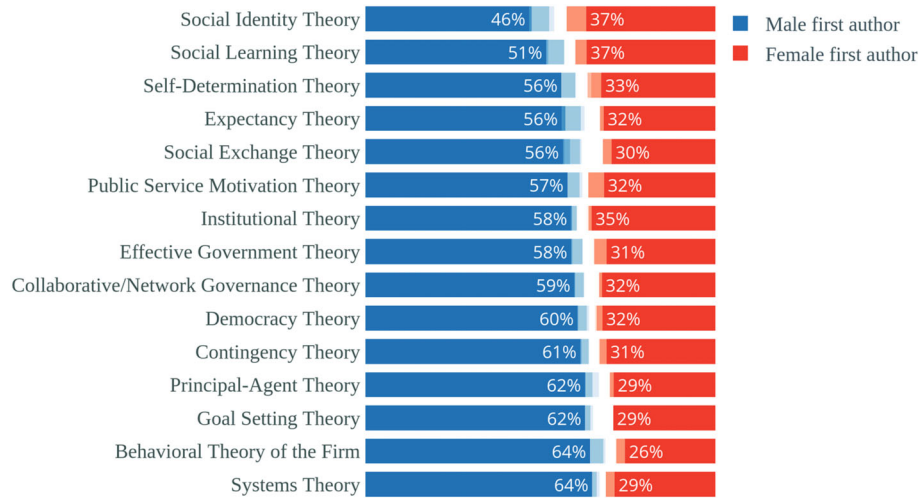


FIGURE 4 Core theories and author diversity.

unbalanced in references to the behavioral theory of the firm (e.g., Cyert & March, 1963).

PA theories and societal and practical relevance

Social equity is only one of many sustainable development goals (SDGs; UN General Assembly, 2023). Scholarship across many disciplines increasingly reflects its own role in supporting these goals and addressing the grand challenges associated with them (George et al., 2016). Given the devotion of PA to the common good and societal well-being, scholarship in this field is particularly expected to speak to problems of broader than merely academic relevance (Graffy, 2008). The field's strong inclination toward practical wisdom and experience (Raadschelders, 2008) should prepare PA scholars well for this challenge, and theories can help to meet it successfully (Frederickson et al., 2015). However, theories are likely to differ in their potential to address problems of societal and practical concern. For example, depending on the range and level of abstraction (Emerson, 2022), it is more or less difficult to translate theories into relevance for specific problems and to derive ready-to-implement solutions. Even if all theories had the same societal and practical utility, scholars might exploit this potential to different extents. In fact, not all theories are similarly prioritized on the theoretical agenda of PA (Table 1); hence, this agenda could be profoundly misaligned with socio-political concerns and the day-to-day challenges in administrative practice.

We analyzed how much PA scholars use the various theories in addressing societally and practically relevant problems. Although the societal and practical relevance of scholarship should go hand-in-hand, we distinguish the two to account for different ways in which PA

scholars address other than academic audiences. We refer to practical relevance if the audience is immediately involved in, or targeted by, scholarship, and to societal relevance if the work addresses urgent social or environmental problems or is distributed via popular media without necessarily defining a specific audience. Figure 5 shows a radar chart for both dimensions, indicating the extent to which theories are used in societally or practically relevant research. Each of the two dimensions was measured by a composite score from two indicators (Appendix A, step 7.5), that is, first, the measure of societal relevance based on the frequency of terms related to the United Nations SDGs (UN General Assembly, 2023) in the full texts, and second, how widely articles are publicly distributed via social and other media ("altmetrics"; Bornmann, 2014). The score of practical relevance combines co-authorship with practitioners (Birkinshaw et al., 2016) and the practical implications more or less extensively presented in the full texts (Bartunek & Rynes, 2010).

Both measures are z-standardized, which implies a mean of zero (calculated on the full set of theory-related documents). In the radar plot, this value is indicated by the line that divides the circle into an inner area with negative values and an outer area with positive values. The area of practical relevance crosses the zero line and extends beyond the inner circle. The core theory with the highest score in this dimension is expectancy theory (e.g., Vroom, 1964), whereas institutional theory (e.g., DiMaggio & Powell, 1983) scores the lowest. In contrast, the area of societal relevance remains in the inner circle and is much smaller than the area of practical relevance. Regarding addressing society at large, goal-setting theory (e.g., Locke et al., 1990) has the least relevance, whereas social identity theory (e.g., Ashforth & Mael, 1989) scores the highest in this dimension. In sum, core PA theories do not differ much from other theories

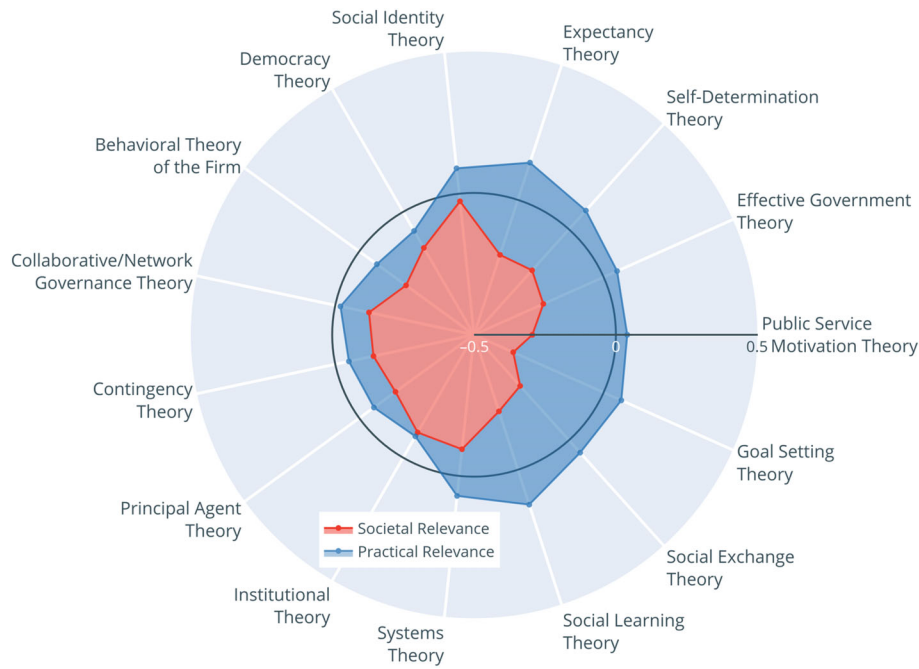


FIGURE 5 Core theories and relevance.

in the sample when they address practitioners, but they fall short considerably in terms of societal relevance.

SYNTHESIS AND CONCLUSION

The final analysis, built on the full set of 150 theories, brings together the contextual factors that were previously examined separately and draws some overarching conclusions on theories and theorizing in PA. The correlation analysis in Table 2 offers a statistical supplement to the visual representation of PA theories in the Supporting Online Information, providing additional information on how the contextual factors are related both to one another and to the central theories in the PA field.

Central theorizing in PA is multidisciplinary

Besides the high levels of multidisciplinary at the core of PA theorizing, as the separate analysis above shows, the synthesis provides evidence that multidisciplinary is significantly and strongly related to the centrality of PA theories (Table 2). The correlation we find signifies that the more a theory is embedded in references from various disciplines, the more central it is to PA scholarship. A possible explanation for this finding is that theories with high explanatory power have been applied in, and speak to, various disciplines, indicating that if scholars build on these theories they draw extensively on research from fields beyond PA. Also, fueling theories with scholarship from other fields can increase their potential to

address public sector phenomena, making it more attractive for PA scholars to apply them. This adds to pleas for greater disciplinary openness in research and theory (Wright, 2011).

Further results from the correlation analysis show that disciplinary openness is more limited in economics and political science than in management, psychology, and sociology since the share of references to economics and political science is significantly and negatively related to the central group of theories. The finding for economics could reflect a relatively high disciplinary distance to PA, with only a few economists publishing in PA journals (Olsen et al., 2023). The gap between PA and economics may have widened further due to the flattening of the new public management wave with its market-driven administrative reforms and associated institutional choices (Hood, 1991). In the case of political science, the finding resonates with the emancipatory move of PA away from one of its root disciplines (Peters et al., 2022). Our analysis covers a period in which the share of references related to the root disciplines dropped considerably compared to the 20th century, while other fields, notably management and psychology, gained influence (Vogel & Hattke, 2022).

Another interesting finding from the correlation analysis suggests that North American scholars have internalized multidisciplinary theorizing more than scholars from other regions in the world. Multidisciplinary is significantly and positively related to institutional affiliation with North American institutions (Table 2), and given that PA scholars tend to carry out their research in the setting where they are affiliated, the Anglo-Saxon administrative

TABLE 2 Means and correlations.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Theory-network Centrality	Mean 0.321	1.000								
(2) Disciplines-economics	0.061	-0.139*	1.000							
(3) Disciplines-management	0.167	0.105	-0.363***	1.000						
(4) Disciplines-political science	0.140	-0.167**	0.200**	-0.738***	1.000					
(5) Disciplines-psychology	0.074	0.064	-0.374***	0.677***	-0.615***	1.000				
(6) Disciplines-sociology	0.080	-0.075	-0.025	-0.286***	0.086	-0.265***	1.000			
(7) Disciplines-interdisciplinarity	0.832	0.262***	0.006	-0.155*	-0.116	0.124	1.000			
(8) Methods-quantitative	0.358	0.066	-0.044	0.611***	-0.566***	0.811***	-0.292***	1.000		
(9) Methods-qualitative	0.256	0.128	-0.293***	-0.006	0.007	0.269***	0.247***	-0.471***	1.000	
(10) Methods-intensity	0.614	0.145*	-0.212***	0.689***	-0.638***	0.746***	0.122	0.873***	0.019	1.000
(11) Author affiliation-North America	0.446	0.022	-0.039	-0.026	-0.234***	0.096	0.200**	0.139*	-0.132	0.084
(12) Author affiliation-Europe	0.402	-0.016	0.094	-0.110	0.317***	0.032	-0.032	-0.296***	0.270***	-0.186**
(13) Author affiliation-other	0.151	-0.012	-0.102	0.258***	-0.148*	0.409***	-0.110	0.324***	0.292***	-0.255***
(14) Administrative tradition-Anglo-Saxon	0.560	0.169**	-0.114	-0.023	-0.199**	0.153*	0.235***	-0.296***	0.358***	-0.137*
(15) Administrative tradition-Cont. European	0.285	-0.110	0.132	-0.088	0.322***	-0.007	-0.152*	0.096	-0.144*	0.029
(16) Administrative tradition-other	0.155	-0.114	0.013	0.130	-0.077	0.357***	-0.046	-0.165**	0.306***	-0.341***
(17) Gender-female first authors	0.356	0.008	-0.158*	0.267***	-0.302***	0.293***	0.184**	-0.019	0.196**	0.185**
(18) Relevance-societal	-0.090	-0.148*	0.265***	-0.241***	0.092	-0.226***	0.344***	0.007	-0.139*	-0.043
(19) Relevance-practical	-0.007	0.038	-0.098	0.401***	-0.484***	0.505***	-0.194**	0.435***	-0.025	0.479***
Variable	Mean	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
(11) Author affiliation-North America	0.446	1.000								
(12) Author affiliation-Europe	0.402	-0.862***	1.000							
(13) Author affiliation-Other	0.151	-0.295***	-0.230***	1.000						
(14) Administrative tradition-Anglo-Saxon	0.560	0.379***	-0.216***	-0.319***	1.000					
(15) Administrative tradition-Cont. European	0.285	-0.608***	0.605***	0.028	-0.702**	1.000				
(16) Administrative tradition-Other	0.155	0.142*	-0.364***	0.414***	-0.621***	-0.123	1.000			
(17) Gender-female first Authors	0.356	0.043	-0.142*	0.186**	0.087	-0.117	0.007	1.000		
(18) Relevance-societal	-0.090	-0.110	0.128	-0.031	-0.182**	0.063	0.184**	0.128	1.000	
(19) Relevance-practical	-0.007	0.209**	-0.264***	0.096	-0.167**	0.092	0.177	-0.209**	-0.209**	1.000

***p < .01;

**p < .05; *p < .1.

tradition is researched and theorized at significantly higher levels of multidisciplinary than administrative systems in other regions. Particularly, non-Western countries, as clustered according to continents and administrative traditions, show significant and negative correlations with multidisciplinary theorizing. We can only speculate about the reasons for this discrepancy. For instance, research funding policies in the Anglo-Saxon world might have incentivized interdisciplinary research. Also, financial constraints in developing countries limit access to copyrighted academic literature (Evans & Reimer, 2009). While this limitation is already a barrier to disciplinary research, the problem is exacerbated if the research is undertaken across different disciplines. Further explanations may arise from different methodological orientations across the globe. There is a strong, positive relationship between multidisciplinary scholarship and using a qualitative methodology, which, in turn, is far less pronounced outside the Western world (Table 2).

Central theorizing in PA is method-heavy

The analysis presented above has shown that the theories scatter widely across quantitative and qualitative methods and that they differ in the overall methodological intensity with which scholars apply them. Indeed, theories in PA lend themselves differently to empirical study (Ricucci, 2010). The synthesis provides evidence that an inclination to do empirical study, as reflected in the intensity of methodological vocabulary, is positively and significantly associated with the centrality of theories (Table 2). On the one hand, this result could indicate methodological maturation, which could ease concerns about underdeveloped methodologies in the field (Groeneveld et al., 2015). On the other hand, it could feed concerns about theorists being obsessed with methods, while neglecting “pure” theorizing. This concern has particularly been voiced for quantitative methods. The results, however, do not echo a “naïve quantitative bias” (Pandey, 2017), as theories that scholars charge with quantitative artifacts are not more central to the field than others. If this bias does exist, it is most likely to occur in scholarship building on theories with strong imprints from psychology and management (Table 2). However, in the broader range of all theories, no methodological camp dominates the field, as neither quantitative nor qualitative methods are significantly related to theory centrality.

If qualitative methods are most useful in building new theories while quantitative methods are more instrumental in testing and elaborating existing theories, we should be concerned about the strong tendency toward quantitative rather than qualitative methods in non-Western scholarship (Table 2). A possible explanation for this finding could be language barriers in theorizing. Understanding and interpreting meaning in spoken and written texts

is essential in qualitative research designs but arguably more difficult for non-native speakers than for native speakers of English, the lingua franca in global scholarship. Consequently, scholars might prefer the more formal and numeric “language” of quantitative methods. This methodological orientation, in turn, may inhibit a distinct scholarly approach in PA studies in developing countries (Bertelli et al., 2020). The reason for this is that adopting existing theories from high-income democracies and further testing and refining them with quantitative methods comes at the expense of genuine theorizing in qualitative designs. Such theorizing is urgently needed to account for unique economic, political, and social conditions in developing countries.

Central theorizing in PA is Anglo-Saxon

Given that qualitative methods are positively and significantly related to theorizing informed by the Anglo-Saxon administrative tradition (Table 2), new theoretical trends are likely to emerge from contexts that differ profoundly from those in other parts of the world. Indeed, the more central a theory is, the more frequently authors draw on evidence from a “Westminster” system (Table 2), which fuels concerns about how much the most central theories in the field reflect the many facets of PA (Peters, 2021). The world maps resulting from our first-hand analysis of how much PA theorizing has been done in relation to different regions, give a visual impression of this imbalance (Figure 3).

Theoretical knowledge could not only be incomplete if empirical evidence reaches saturation only in particular kinds of settings, but it might also be less relevant. The correlation analysis reveals a positive and significant association between references to countries outside the Anglo-Saxon and continental European world and the societal relevance of theory-driven research (Table 2). A possible explanation for this finding is that countries in the global South are particularly affected by the challenges set in the SDGs. Our findings thus encourage PA scholars to increase their societal impact and reconcile theorizing with urgent social and ecological challenges. Particularly, this call addresses theorists who carry out their theorizing in the Anglo-Saxon world, because references to these settings are negatively and significantly related to societal relevance (Table 2).

Central theorizing in PA has limited societal relevance

The societal relevance of PA theories is a matter of broader concern, reaching further than the issue of limited geographical dispersion. The correlation analysis reveals that the more central a theory, the less societally relevant it is (Table 2). This remarkable finding already emerged in the

separate analysis above (Figure 5), where most core theories scored below the average in terms of societal relevance. This puts wind in the sails of all those who want PA scholarships to reach beyond academic audiences and have an impact on the social and ecological challenges of our times. Reflecting on this issue, scholars can rethink and readjust the priorities of, and relationships between, theories and methods (Pandey, 2017). Given that methodological intensity is positively and significantly correlated with practical relevance (Table 2), our findings suggest no contradiction between methodological rigor and practical relevance (Nesbit et al., 2011). However, PA scholars tend to trade-off societal relevance for methodological intensity, as these measures are negatively and significantly correlated (Table 2). Societal relevance is also negatively and significantly associated with references to management and psychology, areas in which most micro-level theories originate, while the association is positive for references to economics and sociology, where most macro-level theories reside (Table 2). Micro theories primarily inform scholarship on internal organizational problems of PA, which limits their potential to speak to problems in the more distal societal context. However, most correlation coefficients flip when it comes to practical relevance (Table 2). Micro theories address a proximate audience of practitioners and policy makers more directly, whereas macro-level theories yield substantially fewer practical “hands-on” implications. These findings suggest that the division of labor between micro and macro theorists is functional (Moynihan, 2018) because, at the aggregated level, these theories can simultaneously address practitioners and society at large. At the level of individual theories, however, societal and practical relevance are likely to trade-off against each other, as evidenced by a negative and significant correlation (Table 2).

Central theorizing in PA is unrelated to gender representation

We find no correlation between the centrality of theories and the first authors’ gender, therefore, the more central a theory does not mean the less women are represented in theorizing. We consider this null result a “significant non-finding,” as it does not provide evidence that mixed-gender theorizing is more eminent than theorizing in less diverse communities. From this functional perspective, representational issues are hence of less concern than from a normative perspective. The analysis still reflects an overall underrepresentation of women in PA scholarship (Klobus et al., 2022; Scutelnicu & Knepper, 2019). Across all theories, the share of female authors among all lead authors is only 36% (Table 2). Since gender imbalances tend to persist, PA scholarship would still be well-advised to support the underrepresented gender (e.g., Pandey et al., 2023; Riccucci, 2021). Our synthesis suggests that this support is more needed in certain geographical and disciplinary contexts than in others (Table 2), since in

geographical terms, gender diversity is negatively and significantly related to affiliation with European institutions. In disciplinary terms, gender diversity is strongly and negatively associated with scholarship inclined to political science and economics.

Limitations

While our study goes beyond standard review methodologies and introduces a novel approach to PA (Breslin & Gatrell, 2020), we also recognize some limitations. Every step in the analytical procedure (Appendix A) could be discussed separately regarding potential limitations; however, here we acknowledge overall that the output of technically driven reviews, to a considerable extent, depends on the input given by the researchers. Throughout the procedure, we had to take multiple decisions, of which many could have been made differently. This limitation applies to both the bibliometric elements and to those parts leaning toward NLP. For example, our choice determined at which threshold to stop the reduction procedure, and depending on this choice, the level of detail the method produced would be higher or lower. Further, the dictionaries for text mining cannot claim completeness and, sometimes, allowed only for probabilistic coding (e.g., gender). Yet, even with unambiguous categories, the applied techniques indicated the appearance of elements in the analyzed articles without accounting for the authors’ motive in using a particular keyword, phrase, or reference. While these limitations, as the limitations of any review methodology, cannot ultimately be resolved, they have been mitigated to the largest possible extent. First, misclassification of individual cases matters more in small-scale data analyses, in which such cases have a comparatively larger effect on the results. In “big data,” in contrast, classification errors often compensate for one another, and overarching trends driven by predominant motives become visible. Second, and more importantly, we could rely on our own expertise in the PA field, as well as on valuable comments from the reviewers and numerous colleagues. This was indispensable for informing technical decisions and for interpreting results.

Concluding remarks

This study has offered an innovative and integrative perspective on theories and theorizing in PA. Our bottom-up approach to literature reviewing has created a mirror image of the community and its use of theories. Some of the resulting representations may appear unfamiliar to readers, and some readers may not like everything they show. However, we consider such irritations to be part of the exercise in reflexive theorizing which our review exactly intends to encourage (Alvesson et al., 2008; Shepherd & Suddaby, 2017). Some parts of the mirror

image may be cloudy, and there may even be blind spots. The sharpness with which the extracted theories are reflected differs to some extent, with some theories standing out more clearly in the literature than others. This delineation is also a matter of how close a theory is to the disciplinary core of PA scholarship. The more distant theories are, the less fine-grained they appear from the perspective of PA scholars, and the more likely some are to fall into a single umbrella category, which experts might have distinguished as different. The aim of our review has been to reveal the picture that PA scholars collectively draw, however blurred it may be in some cases. The identified theories differ in their scope and level of theorizing and, thus, might not be covered in reviews, which depart from a top-down choice of theories that reside at equivalent levels. Even the status of some theories as such could be disputed, given that there is no shared notion of theory (Abend, 2008). The results may, therefore, engage the community in self-reflection on the very understanding of what a theory is and is not. A consequence of such discussions could be to use the term more carefully and strictly in future scholarship.

Despite this admitted opaqueness, our review shows the plurality and vitality of theories and theorizing in PA. While some may perceive the lack of native theories as a threat to the scholarly identity of PA, we prefer a more optimistic view of theoretical variety and openness as being part of that identity (Raadschelders, 2010). However, our review also indicates where reimagination and rejuvenation of theorizing in PA is needed. A schism between micro and macro theories (Moynihan, 2018) is apparent from the results. Whereas the qualities of micro and macro PA theories to some extent make them complementary, their dualism could also be a barrier to theoretical development in the field. Micro theories travel around the world more easily because they provide scholars with a more universal vocabulary of quantitative methods and are less contingent on the institutional contexts in which they are applied. This integrative power of micro theories, however, comes at the expense of limited relevance for the societal challenges by which non-Western regions are disproportionately affected. Macro theories speak more directly to these challenges, but their contingencies on socio-economic conditions under which they were developed, as well as their more complex language, make them less transferable to, and applicable in, regions outside North America and Europe. Thus, unfortunately, the kind of theorizing that enables participation in contemporary global scholarship is also the kind of theorizing that replicates predominant theories the most, while it simultaneously marginalizes original, context-rich theorizing that would pave the way for true reimagination and rejuvenation. This conclusion should encourage PA scholars to reflect on the potential of their future theories to capture administrative phenomena in the great variety in which they occur throughout the world. PA scholars need to envision whether and how these theories would

matter on a larger scale if they were better informed by observations from non-Western settings.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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APPENDIX A: TECHNICAL NOTES

STEP 1: JOURNAL SELECTION

We started by adopting a list of PA journals from the Journal Citation Reports (JCRs) provided by Clarivate Analytics. Our focus was on the "Public Administration" category in the JCRs, corresponding with the eponymous category in the Social Science Citation Index (SSCI). We scrutinized the journal list from a citation index because this enabled us to download and analyze cited references at later stages in the review process. Considering the available citation indices, the SSCI still provides comparatively "clean" data, which reduced (but did not preclude) data cleansing efforts. We sampled all journals that (1) had been included in the PA category in at least one year of the analyzed period (i.e., 2000–2019), (2) had been published in English language, and (3) had electronic full texts of articles available from other sources (see step 2 below). Journals are not necessarily assigned exclusively to a single subject category – many are cross-classified into multiple categories. Therefore, we inspected all journals with multiple designations and excluded those with editorial focus outside PA. This primarily applied to public policy journals (such as *Climate Policy*, *Journal of European Public Policy*, and *Policy and Society*), the blurring boundaries between PA and public policy notwithstanding. The final sample included 21 PA journals (Appendix B).

STEP 2: DOWNLOAD OF BIBLIOGRAPHIC METADATA AND FULL TEXTS

For documents published in the journals selected in step 1, we downloaded bibliographic metadata (such as author names and affiliations, keywords, and abstracts) and full texts for the twenty volumes from 2000 to 2019.

TABLE A 1 Database

Year	No of journals	No of articles	No of references
2000	15	484	16,440
2001	16	502	17,952
2002	16	537	19,861
2003	16	517	19,392
2004	16	513	20,383
2005	17	561	22,225
2006	17	569	24,074
2007	17	609	25,759
2008	19	681	30,247
2009	20	708	32,977
2010	20	768	36,792
2011	20	778	38,629
2012	20	782	37,606
2013	20	770	40,320
2014	21	800	42,341
2015	21	820	45,217
2016	21	823	45,010
2017	21	881	50,013
2018	21	916	53,300
2019	21	915	56,053
Total	N/A	13,934	674,591

The database classifies documents into several types; we focused only on "articles" and "reviews" while excluding all other types, such as "editorials," "book reviews," "errata," etc. As the boundaries between articles and reviews are blurred, we do not distinguish between these genres, and therefore, refer to all downloaded documents as articles. Besides the metadata, we also downloaded the references cited in the articles. The full texts were downloaded in portable document format (PDF). We then subjected all documents to an optical character recognition (OCR) procedure and converted them to a plain text format, which is machine-readable. We supported data preprocessing, corpus creation, and some analytical procedures (e.g., keyword-in-context, n-gram analysis) by using the *quanteda* package in R (Benoit et al., 2018). Table A1 presents the database of the study after data collection and conversion had been completed.

STEP 3: COMPILING THEORY DICTIONARY AND CODING THE DATA

In a computer-assisted keyword-in-context search, we searched for "theory" in the full texts of all articles and extracted excerpts consisting of the five words before and after this keyword. These excerpts were then subjected to an open coding (Corbin and Strauss, 2015), which we conducted semi-manually. The purpose of this step was to identify those excerpts that apparently referred to a particular theory while removing the

excerpts in which the keyword “theory” appeared for other reasons (e.g., if used as part of a journal name). After several rounds of consolidation, the codes converged in a list of 1882 theories. We used the most common term as a theory descriptor if authors attached different labels to what was apparently the same theory (e.g., “multi-level governance theory” for “multi-level governing theory,” “theory of multi-level governance,” “MLG theory,” “theory of MLG”) or if they used different spellings or misspellings [e.g., “multilevel governance theory,” “multi-level governance (MLG) theory”]. We then fed the list of theories with their different search phrases into a dictionary for a computer-assisted, replicable re-coding of the full texts. A closed vocabulary text mining (Hickman et al., 2022) produced the initial version of a document-theory matrix, containing documents as rows, theories as columns, and the number of occurrences of each theory in each document as entries.

STEP 4: CREATING AND REDUCING THE INITIAL THEORY NETWORK

The next task was to reduce the large body of theories to those that are most central to PA scholarship. For this purpose, we converted the document-theory matrix to a theory-theory matrix. This step moved our methodology closer to traditional bibliometric techniques, which often start with identifying co-occurrences of elements in the same document (e.g., co-citation analysis; Small, 1973). In our case, these elements were theories as identified through matches with the search phrases in the dictionary (step 3). The theory-theory matrix included the theories identified in step 3 as both rows and columns and the number of occurrences of any pair of theories in the documents as entries. This data corresponds to the numeric representation of a network, with the theories as network nodes and the number of joint appearances in the same documents as network ties. Accordingly, we linked two theories to each other if they were mentioned jointly in at least one article. We used UCINET for conducting the network analyses (Borgatti et al., 2002). A stepwise increase of thresholds reduced the network to fewer but more densely interwoven theories, thus incrementally eliminating peripheral theories. We stopped this reduction procedure at the threshold of four, which means that only the theories mentioned with at least one other theory four or more times remained in the network. This applied to 434 theories. The concentration on interconnected theories also eliminated theories that occurred infrequently, like the “dirty hands theory” or the “love of money theory.”

STEP 5: INSPECTING THEORIES FOR DISTINCTIVENESS

To further reduce the theory network, we performed complementary bibliometric analyses, which additionally allowed the authors to inspect the theories more closely. We performed two analyses that provided additional

information on the distinctiveness of the remaining theories. First, we created a citation ranking for each theory, which ranked all references in the bibliographies of articles that referred to that theory. Second, we created a new theory network, with the theories as nodes and the number of shared references in the articles that mentioned the theories. This procedure conformed to the method of bibliographic coupling (Kessler, 1963), with the modification that we coupled theories, rather than documents, to one another. We then inspected each theory and discussed whether it emerges distinctively or should either be eliminated from the network or merged with another theory. Based on the citation rankings, we ascertained whether the most frequently cited references constitute a coherent body of literature that is clearly related to the respective theory, most obviously by making seminal contributions to it. Next, we transformed the theory network into ego networks, with the focal theory in the center and theories with bibliographic overlaps in the neighborhood. Our discussions were guided by the question of whether a theory had left a distinct enough fingerprint in the cited references to differentiate it from the fingerprints of other theories, thereby warranting its retention in the network, or whether a theory did not stand out clearly from the references, and thus had either to be dropped or to be merged. Most dropped “theories” were umbrella labels that, rather than denoting a specific theory, referred to a disciplinary field of theorizing, such as “economic theory” or “management theory.” We further decided to remove methodological theories that do not theorize substantive phenomena in the field of PA, such as “item response theory” or “econometric theory.” Theories were merged when they showed a strong overlap in cited references and could reasonably be considered as one theory. This was most evident in cases where authors used different labels for one theory, such as “full-range theory of leadership” and “transformational-transactional theory of leadership,” but also in cases of ‘nested’ theories, like “institutional isomorphism theory” and “institutional theory.” In the latter case, the broader label remained as the sole descriptor for the theory while the other terms were added as search phrases to the respective theory in the dictionary (see step 3). The review procedure at this stage was a highly iterative process because some decisions required a re-inspection of the theory networks and citation rankings once the modifications had been implemented.

STEP 6: CREATING AND CLUSTERING THE FINAL THEORY NETWORK

As the remaining network of theories was still too large to provide convenient orientation, we applied and successively increased another threshold by focusing on the mere count of theories, finally retaining only those that had been applied more than 15 times. This procedure had the advantage of not losing theories that are frequently

mentioned, even if rarely in recurrent combination with other theories. At this threshold, 150 theories remained (the resulting even number being a coincidence). Given that the theory-theory matrix corresponds to network data (see step 4), we were able to calculate standard network measures, such as a core/periphery partition (Borgatti & Everett, 2000) and the degree of centrality (Freeman, 1978). However, the processing of this matrix was not limited to network analysis. We additionally subjected it to a hierarchical cluster analysis using the Ward algorithm (Ward, 1963) and Φ^2 coefficient as distance measure. This combination is especially sensitive to variations in the data and thus appropriate for dense matrices, which applies to our case. The resulting dendrogram is useful for visualizing a “tree” of PA theories, which indicates family relationships among theories and shows how they merge into one body of theorizing (Appendix C).

STEP 7: CODING FOR THEORY CONTEXTS

Besides references to theories, the analyzed articles provided additional information on the contexts into which PA theories and theorizing are embedded and with which they possibly co-evolve. We conducted our contextual analysis on the level of documents using LIWC2015 (Pennebaker et al., 2007), focusing on five aspects: disciplinary backgrounds, methodological choices, geographical settings, author diversity, and relevance in societal and practical terms. As we present our findings along these lines, we have provided the necessary explanations of the underlying coding procedures in the results section, where they contribute more immediately to an understanding of the presented graphics. Below, we describe the analytical steps in more detail.

Step 7.1: Disciplinary backgrounds

We classified the references of all articles based on a consolidated disciplinary classification taken from the JCRs. The coding scheme included more than 3000 journals in more than 40 disciplinary categories in the social sciences (Vogel & Hattke 2022). The categories in the SSCI include broader disciplines (e.g., economics) as well as smaller research areas (e.g., family studies). The non-hierarchical nature of the SSCI categories has proven problematic when analyzing the interdisciplinarity of a field (e.g., Zhang et al., 2016). Therefore, we focused our analysis on the five most referenced scientific disciplines (i.e., economics, management, political science, psychology, and sociology), which are commonly considered as the most influential disciplines in contemporary PA (Hustedt et al., 2020; Vogel & Hattke 2022). We calculated the share of references to these disciplines among all coded references of an article. Next, we calculated the multidisciplinary of each document using Blau's heterogeneity index (1977). Finally, we compiled the mean values for each theory by aggregating the data from the document level.

Step 7.2: Methodological choices

We coded the use of research methods by applying lexicographic analyses based on a predefined dictionary (Hickman et al., 2022). The list contained more than 7300 descriptors of different types of data and methods (Vogel et al., 2017), distinguishing quantitative (e.g., “regression analysis”) and qualitative analyses (e.g., “ethnography”). The resulting document-term frequency matrix provides a value for the frequency of the respective methodological descriptors for each document. We then calibrated these values by comparing them with the mean frequencies of quantitative and qualitative PA studies that were obtained from a manually coded set of over 200 randomly selected PA articles. An article obtained the probability of 1 as maximum value for using a method, if the term frequency of that article was equal to the mean of the respective benchmark. Mixed methods were not coded as separate categories, as they already scored high in both qualitative and quantitative dimensions. The result was a matrix, which provided the probability of articles using quantitative and/or qualitative methods (for a similar approach, see Vogel & Hattke, 2022). We calculated the overall methodological intensity as the sum of both methodology scores. For each theory, we calculated the mean values of the three indicators across all articles referring to that theory.

Step 7.3: Geographical settings

Having retrieved all author affiliations from the metadata of the articles, we applied a predefined dictionary with close to 400 words indicative of countries (e.g., “Germany,” “German”; see Vogel & Hattke, 2022) to (1) the author affiliations and (2) the full texts of all articles. The resulting two document-term matrices indicated the distribution of countries in which the authors' institutions were located and the frequency with which countries were mentioned in the articles. The former measures were replaced by the share of a particular country among all country affiliations per document. Thus, for a paper with two co-authors, one based in the U.S. and the other in the U.K., the respective row in the document-country matrix had zeros, except for two 0.5-values in the U.S. and the U.K. columns. For the latter indicator, we determined the share of in-text references to a specific country among all references to all countries for each document. Again, if five different countries were mentioned in an article's full text, each of the respective document-country cells in the matrix would have a value of 0.2 and zeros for the rest of the document's row. We then calculated the mean values of the indicators for each theory. For the visualizations in Figure 3 and the correlational analysis (step 8), we aggregated the assignments to countries into broader geographic regions (e.g., North America) and administrative traditions (Anglo-Saxon, Continental European, Other; see Peters, 2021).

Step 7.4: Author gender

To determine gender diversity among lead authors, we subjected the authors' first and middle names to a closed-vocabulary text mining. We extracted these names from the metadata of all articles. However, only as of 2008 does the SSCI database regularly cover the full names of authors. We, therefore, manually searched for the missing first names to complete the database. The text mining was conducted with the World Gender Name Dictionary (Raffo, 2021), which includes more than 175,000 names, to estimate the probability of each lead author's gender. A limitation of this procedure is that non-binary genders cannot be inferred from names. Our analysis thus assigned a probability with which authors were either male or female, which was successful in approx. 92% of the cases. Finally, we calculated the mean ratio of male/female lead authors for each theory.

Relevance in societal and practical terms

We combined two indicators for estimating the *societal relevance* of theories. The first indicator concerns the extent to which the literature refers to the United Nations sustainable development goals (UN General Assembly, 2023). We compiled a dictionary with more than 860 keywords (e.g., "sustainable future," "climate change," "poverty") by expanding existing catalogs (SDSN, 2017) with the top 200 pertinent n-grams from the years 2014, 2015, 2016, and 2019 UN Global Sustainable Development Reports (UN GSDR, 2023). We then conducted a closed vocabulary text mining to assign term frequencies for each document. The second indicator of societal relevance is the Altmetric Attention Score, which measures references to academic articles in traditional media (e.g., newspapers) and online media (e.g., social media, blogs), as well as in repositories, policy documents, and patents (Altmetric, 2021). We would like to note that this indicator is most likely skewed toward later publication years since the availability of online information increased dramatically during the second decade under investigation.

Similarly, two indicators assessed the *practical relevance* of a theory. The first indicator estimated the extent to which academic authors address practitioners in their articles. Drawing on Bartunek and Rynes (2010), our dictionary includes approx. 240 words and phrases indicative of practical relevance (e.g., "insights for practice," "relevant for administrators") or the use of prescriptive language (e.g., "should," "ought," "need to"). The second indicator of practical relevance considered the share of co-authors positioned outside of academia as a proxy for "practice-led research" (Birkinshaw et al., 2016). The metadata of articles included almost 25,000 unique descriptors of authors' affiliations, which were coded as either academic (universities and academic research

institutes) or non-academic (e.g., agencies, ministries, businesses). We conducted a web search for ambiguous cases and discussed the eventual coding among the authors. Finally, we z-standardized all four indicators and compiled two composite measures, one for societal and one for practical relevance. These measures were then aggregated at the theory level by calculating the mean values of the score of documents referencing a theory.

STEP 8: SYNTHESIZING THEORY CENTRALITY AND CONTEXTS

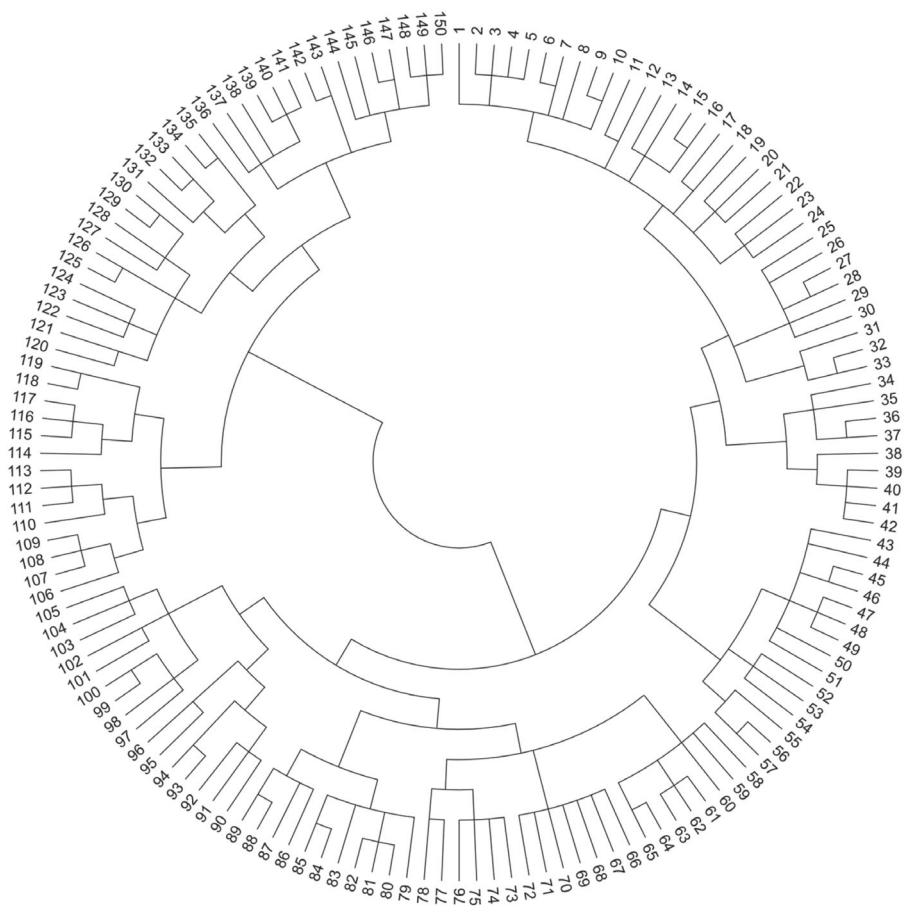
The final analyses synthesized the results from the network and cluster analyses (step 6) and the aggregated contextual dimensions (step 7). At the level of theories, we conducted a bi-variate correlational analysis (Pearson coefficients) to estimate the strength and significance of the relationships between the centrality of theories and their contexts (Table 2). We further compiled an infographic to visualize the proximity of theories and how they jointly converge into schools of thought, which are embedded in distinguishable configurations of contextual characteristics (Appendix C; see also the [Supporting Online Information](#)).

APPENDIX B: JOURNALS

Administration & Society
 Administration in Social Work ^a
 American Review of Public Administration
 Australian Journal of Public Administration
 Canadian Public Administration –Administration Publique Du Canada
 Governance – An International Journal of Policy Administration and Institutions
 Human Service Organizations: Management, Leadership & Governance ^a
 International Public Management Journal
 International Review of Administrative Sciences
 Journal of Policy Analysis and Management
 Journal of Public Administration Research and Theory
 Local Government Studies
 Public Administration
 Public Administration and Development
 Public Administration Review
 Public Management Review
 Public Money & Management
 Public Performance & Management Review
 Public Personnel Management
 Public Policy and Administration
 Review of Public Personnel Administration
 Social Policy & Administration

Note: Journal was renamed (2000–2013: Administration in Social Work; 2014–2019: Human Service Organizations: Management, Leadership & Governance).

APPENDIX C: TREE OF THEORIES



The full infographic is included in the Supporting Online Information.

1	Theory of Political-Economic Paradigms	56	Size / Scope of Government Theory	108	Transformational / Transactional Leadership Theory
2	Resource Dependence Theory	52	Privatization Theory	109	Administrative Leadership Theory
3	Behavioral Theory of the Firm	53	Signaling Theory	110	Conservation of Resources Theory
4	Institutional Theory	54	Public Goods Theory	111	Leader-Member Exchange Theory
5	Contingency Theory	55	Public Expenditure Theory	112	Social Exchange Theory
6	High Reliability Theory	56	Property Rights Theory	113	Perceived Organizational Support Theory
7	Cultural Theory	57	Size / Scope of Government Theory	114	Similarity-Attraction Theory
8	Field Theory	58	Privatization Theory	115	Intergroup Conflict Theory
9	Structuration Theory	59	Prismatic Theory	116	Social Identity Theory
10	Practice Theory	60	Modernity Theory	117	Self-Categorization Theory
11	New Public Management Theory	61	Program Evaluation Theory	118	Socialization Theory
12	Theory of Impartial Government Institutions	62	Poverty Theory	119	Representative Bureaucracy Theory
13	Upper Echelons Theory	63	Planning Theory	120	Policy Design Theory
14	Publicness Theory	64	Governance Theory	121	Street-Level Bureaucracy Theory
15	Public Value Theory	65	Systems Theory	122	Cognitive Dissonance Theory
16	Theory of the Public	66	Complexity Theory	123	Human Needs Theory
17	Policy Diffusion Theory	67	Reinvention Theory	124	Control Theory
18	Economic Development Theory	68	Constitutional Theory	125	Red Tape Theory
19	Two-Communities Theory	69	Weber's Theory of Bureaucracy	126	Green Tape Theory
20	Learning Theory	70	Democratic Administration Theory	127	Self-Efficacy Theory
21	Budgeting Theory	71	Administrative Reform Theory	128	Social Comparison Theory
22	Path Dependence Theory	72	Policy Implementation Theory	129	Social Learning Theory
23	Coalition Theory	73	Democratic Elites Theory	130	Theory of Reasoned Action and Planned Behavior
24	Actor-Network Theory	74	Feminist Theory	131	Citizen Satisfaction Theory
25	Power Theory	75	Agenda-Setting Theory	132	Prospect Theory
26	Evolutionary Theory	76	Social Movement Theory	133	Decision-Making Theory
27	Strategy Theory	77	Framing Theory	134	Performance Management Theory
28	Resource-Based Theory	78	Narrative Theory	135	Organizational Learning Theory
29	Conflict Theory	79	Knowledge Theory	136	Goal Ambiguity Theory
30	Human Capital Theory	80	Participation Theory	137	Organizational Commitment Theory
31	Stakeholder Theory	81	Deliberative Theory	138	Theory X / Y
32	Legitimacy Theory	82	Discourse Theory	139	Equity Theory
33	Positive Accounting Theory	83	Democracy Theory	140	Goal Setting Theory
34	Co-Production Theory	84	Postmodern Theory	141	Expectancy Theory
35	Trust Theory	85	Critical Theory	142	Two-Factor Theory of Motivation
36	Public Management Theory	86	Theory of Communicative Action	143	Job Satisfaction Theory
37	Public Service Management Theory	87	Justice Theory	144	Psychological Contract Theory
38	Cooperation Theory	88	Citizenship Theory	145	Volunteering Theory
39	Cooperation Theory	89	Morality Theory	146	Self-Determination Theory
40	Social Network Theory	90	Theory of Liberal International Politics	147	Motivation Crowding Theory
41	Social Capital Theory	91	Neoclassical Production Theory	148	Person-Environment Fit Theory
42	Collective Action Theory	92	Public Finance Theory	149	Public Service Motivation Theory
43	Collaborative / Network Governance Theory	93	Theory of Fiscal Federalism	150	Effective Government Theory
44	Theory of Political Delegation and Control	94	Nonprofit Sector Theory		
45	Accountability Theory	95	Government Failure Theory		
46	Games Theory	96	Multi-level Governance Theory		
47	Regulation Theory	97	European Integration Theory		
48	Transaction Cost Theory	98	Ecological Modernization Theory		
49	Unitary Executive Theory	99	Welfare State Theory		
50	Principal-Agent Theory	100	Urban Regime Theory		
51	Stewardship Theory	101	State Theory		
52	Incentive Theory	102	Power Resource Theory		
53	Signaling Theory	103	(Un-)Employment Theory		
54	Public Goods Theory	104	Partisanship Theory		
55	Public Expenditure Theory	105	Voting Theory		
	Property Rights Theory	106	Decentralization Theory		
		107	Role Theory		
			Leadership Effectiveness Theory		