Epistemological Possibilities of Public Administration Theories: from Paradigms to Epistemic Matrices

Patrícia Araújo Silva[a]
Ana Cristina Batista dos Santos[a]

[a] State University of Ceará, Fortaleza, Brazil

Abstract

This study aims to contribute to the literature on public administration by conducting epistemological research on the main trends in the field, updating them with the Circle of Epistemic Matrices proposed by Paes de Paula (2016). For this, (a) it starts from the essay written by Andion (2012), which carried out a critical study on the trajectory of the field of public administration in Brazil and the different theoretical lines that compose it, based on the paradigms model built by Burrell and Morgan (1979); and (b) it analyzes the main lines that compose the field of public administration, called State-centric, Pluralist, New Public Administration, New Public Service, and Digital Era Governance, in light of the Circle of Epistemic Matrices proposed by Paes de Paula. As results, it confirms that functionalist sociological approaches have a strong influence on the field of public administration. Greater dialogue is suggested between the lines that compose the field and the development of new matrix propositions – giving special attention to the digital transformation driven by Digital Era Governance and by the new coronavirus (SARS-CoV-2) health crisis – taking into account that the instrumental rational logic is insufficient to explain the phenomena of the reality, even if it is needed for streamlining public goods and interests. Finally, reflections are presented along with an agenda for future research.

Keywords: public administration; paradigms; epistemic matrices.

Introduction

Public administration emerged in the international context as a field of study at the start of the 20th century, with growing interest from researchers after the Second World War, in the attempt to elaborate a unified discipline (Raadschelders, 1999). Despite the unification efforts, there remain criticisms and methodological opportunities to scientifically reinforce this field of study.

As a discipline, public administration can be defined as interdisciplinary in capturing tensions between an instrumental rational orientation, objectifying effectiveness and efficiency, on one hand, and a political orientation, interested in questions of values and in promoting the public interest, on the other. However, since its origins, it can be affirmed that, besides the prevalence of a view of separation of these two orientations, an instrumental rational orientation has been favored (Andion, 2012).

Despite academic efforts toward an epistemological elaboration of public administration (Abreu, Helou, & Fialho, 2013; Andion, 2012; Keinert, 1994, 2000), there is a perceived predominance of the use of the sociological paradigms proposed by Burrell and Morgan (1979), with appropriations of the Kuhnian explanatory logic (Kuhn, 1997), this being the object of numerous debates and controversies in the field (Paes de Paula, 2015, 2016).

In this sense, this study seeks to contribute to the literature in the area by conducting epistemological research on the trends in public administration, updating them with developments from the Circle of Epistemic Matrices proposed by Paes de Paula (2015, 2016), which concatenates types of philosophy and logic, as well as the cognitive interests of Habermasian inscription. It also aims to update the field with new implications derived from the Brazilian federal sphere for the area.

Besides this introduction, in the second section the paper covers the methodological procedures, followed in the third section by the paradigmatic analysis of the trends in public administration. In the fourth part, it analyzes the lines of public administration in light of the epistemic matrices. The concluding remarks are presented in the fifth and final section.

Methodological procedures

This study presents its theoretical framework based on a systematic literature review (Mendes-da-Silva, 2019) by carrying out a meticulous search for articles in the area of public administration and its epistemological lines in journals ranked above A4 by *Qualis Periódicos* of the *Plataform Sucupira*, as well as a search in Google Scholar. The terms searched for in Portuguese and English were patrimonialism, bureaucracy, reforms, public administration, societal public administration, and Brazilian public administration, resulting in thirteen articles (Table 1).

Table 1
Academic articles selected

Title	Authors	Journal	Ranking
New public management is dead – long live digital-era governance	Dunleavy, Margetts, Bastow, and Tinkler (2005)	Journal of Public Administration Research and Theory	A1
A coherent framework for the study of public administration	Raadschelders (1999)	Journal of Public Administration Research and Theory	A1
Maybe it is time to rediscover technocracy? an old framework for a new analysis of administrative reforms in the governance era	Esmark (2016)	Journal of Public Administration Research and Theory	A1
Epistemological possibilities for widening Public Administration Theory: an analysis based on the concept of New Public Service	Abreu, Helou, and Fialho (2013)	*Cadernos EBAPE.BR*	A2
Recent trajectory of Brazilian public management: a critical balance and renewing the reform agenda	Abrucio (2007)	*Revista de Administração Pública*	A2
For a new interpretation of the paradigm shifts in public administration	Andion (2012)	*Cadernos EBAPE.BR*	A2
The paradigms of public administration in Brazil (1900-1992)	Keinert (1994)	*Revista de Administração Pública*	A2
Brazil: 200 years of State; 200 years of public administration; 200 years of reforms	Costa (2008)	*Revista de Administração Pública*	A2
Democracy, social state, and management reform	Bresser-Pereira (2010)	*Revista de Administração de Empresas*	A2
Brazilian public administration between managerialism and social management	Paes de Paula (2005)	*Revista de Administração de Empresas*	A2
Beyond the paradigms in the organizational studies: the circle of epistemic matrices	Paes de Paula (2016)	*Cadernos EBAPE.BR*	A2
Administrative reforms in Brazil: a theoretical and critical approach	Capobiango, Nascimento, Silva, and Faroni (2013)	*Revista de Gestão*	A3
A managerial reform of public administration in Brazil	Bresser-Pereira (1998)	*Revista do Serviço Público*	A4

Source: Elaborated by the authors.

The literature chosen was then analyzed using the Atlas.ti software, version 7.5.7, and categorized based on the Analysis of Sense Nuclei, a technique proposed by Mendes (2007), adapted from thematic context analysis. The operationalization flow of the article analysis can be visualized in Figure 1.
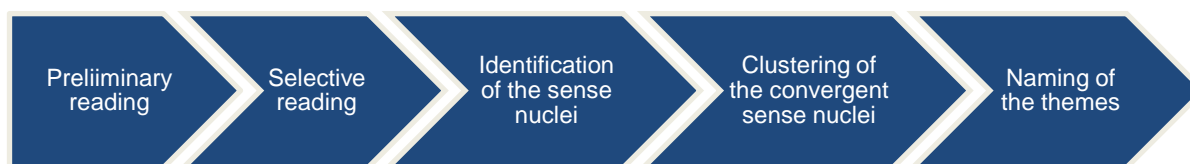
```
Preliiminary     Selective      Identification      Clustering of        Naming of
reading          reading        of the sense        the convergent       the themes
                                nuclei              sense nuclei
```

Figure 1. Article analysis flow
Source: Elaborated by the authors.

Eight themes were derived from the categorization process, which were subjected to representativeness and internal consistency tests, as shown in Table 2.

Table 2
Representativeness and internal consistency test

Themes	Representativeness	Internal consistency
Public administration (science) / public administration (administrative structure)	12/13	46
Public administration dysfunctions	10/13	42
Public administration trends	9/13	90
Reform failures	9/13	53
International administrative reforms	9/13	58
Brazilian administrative reforms	8/13	74
Techno-flexibility	7/13	50
Historical-economic-political context of reform	7/13	38

Source: Elaborated by the authors.

The representativeness test indicates the distribution of themes in the group of articles analyzed. In this study, it was identified that twelve of the thirteen articles addressed the theme of public administration (science)/public administration (administrative structure), followed by 10/13 for public administration dysfunctions, 9/13 for administration trends, 9/13 for reform failures, 9/13 for international administrative reforms, 8/13 for the theme of Brazilian administrative reforms, 7/13 for techno-flexibility, and 7/13 for the historical-economic-political context of reform.

The internal consistency test, in turn, indicates how many context units compose the theme in the articles, giving it strength. The public administration trends theme emerged with the greatest strength, as it has the biggest portion of context units (90), followed by Brazilian administrative reforms (74), international administrative reforms (58), reform failures (53), techno-flexibility (50), public administration (science)/public administration (administrative structure), public administration dysfunctions (42), and historical-economic-political context of reform (38). The next stage was to write the epistemological study proposed.

Paradigmatic analysis of the public administration trends

Among the various possibilities for public administration models systematized in the literature, this paper adopts the one proposed by Andion (2012), which converses with papers of Keinert (1994, 2000). The author developed a periodization of public administration in Brazil, correlating the epistemological paradigms proposed by Burrell and Morgan (1979) with the main lines – State-centric, Pluralist, New Public Administration (NPA), and New Public Service (NPS) – of public administration, according to Table 3.

Table 3

Paradigms, lines, and theories in the field of studies on Brazilian public administration

Radical Change in Sociology

RADICAL HUMANISM Emphasis on the mobilization of civil society and on its actions as a subject of social change. PLURALIST LINE (CRITICAL AND HUMANIST STUDIES) – New social movement theories – Participative democracy theories – Critical theories in public administration	**RADICAL STRUCTURALISM** Emphasis on the relationships between State and social classes. State as a space of conflict between the social classes. PLURALIST LINE (MARXIST AND NEOMARXIST STUDIES) – Social movement theories – Capitalist state theories	
INTERPRETATIVISM Emphasis on understanding the reality of public administration, considering the subjectivity of politics (importance of values). NEW PUBLIC SERVICE LINE – Theories of the coproduction of public services –Theories of community and civil society participation – Critical, humanist, and discourse theories – New theories of development (territorial and sustainable)	**FUNCTIONALISM** Emphasis on the conception of universal laws that enable us to explain the functioning of the public administration and the behavior of political actors, with a view to promoting order and balance (regularity). STATE-CENTRIC LINE – Scientific administration theory – Bureaucracy theory – Behavioral theories – Systems theories NEW PUBLIC ADMINISTRATION LINE – Public choice theory – Agency theory – Neoinstitutionalism of rational choices – Economic neoinstitutionalism – Managerialism and neomanagerialism – Good governance theory	

Subjectivity (left axis) / Objectivity (right axis)

Sociology of Regulation

Source: Andion, C. (2012). For a new interpretation of the paradigm shifts in public administration. *Cadernos EBAPE.BR*, *I0*(1), 1-19.

From analyzing Table 3, we can verify the grounding in the model proposed by Burrell and Morgan (1979), which is based on the Kuhnian logic and ideas (Kuhn, 1997) and relies on four dimensions: sociology of radical change and sociology of regulation, which are traversed by the

relationship between objectivity and subjectivity, resulting in a diagram with four paradigms, namely functionalism, interpretivism, radical structuralism, and radical humanism. Due to their theoretical convergence, the lines of public administration are included in the paradigms. It is perceived that the State-centric and NPA lines are connected with the functionalist paradigm. In turn, the Pluralist line is connected with radical structuralism and radical humanism, and the NPS line with the interpretivist paradigm.

The State-centric line is the most influential in the field of public administration in Brazil and is correlated with the functionalist paradigm of Burrell and Morgan (1979), characterized by the alignment with sociology of regulation and objectivity of science. It corresponds to the period covering the end of the 19th century to the 1980s, dividing into three moments. The first period starts before the emergence of the discipline in the country and extends to the end of the 1920s, including the Old Republic (1889-1930), in which the questions regarding the area were primarily linked to judicial sciences, such as Administrative Law (Abreu et al., 2013; Andion, 2012). At the economic level, the national political regime was characterized by a Liberal State during the 19th century, with transition to the Developmentalist State in the 20th century after the Second World War (Bresser-Pereira, 2010).

The second period covers the years from 1930 to 1950, a time that saw the emergence of the public administration discipline in Brazil (Andion, 2012). Historically, it covers the establishment of the New State, in the Getúlio Vargas government (1937-1945), and the creation of the Administrative Department of Public Service (DASP), in 1936. This was the main agent of its diffusion and considered a milestone for the first public administration reform in the country – the bureaucratic reform (Bresser-Pereira, 1996), which was translated as a systematic effort to overcome patrimonialism (Costa, 2008). The formal objective of that period was to structure a meritocratic and professionalized public administration. There was notable influence from Taylor's scientific administration and Weber's bureaucracy theory, also known as progressive public administration, in which there was an initial induction of marketing techniques for the public context. There was also the influence of the North American literature on the academic field (Andion, 2012; Secchi, 2009).

At a third moment, from the 1950s to the start of the 1980s, the public administration discipline was consolidated in the country, internationalizing with the widening of cooperation, especially with the United States. The Brazilian School of Public Administration (EBAP) was created in 1952, under the guidance of the United Nations Organization (UN). The State expanded as a promotor of national development, assuming a developmentalist political regime, especially during Juscelino Kubitscheck's government (1956-1961), with four key sectors standing out: energy, transport, heavy industry, and food (Bresser-Pereira, 2010; Costa, 2008), with a technicist bias. It also covers the start of the military dictatorship in the country (1964-1985), with the State taking on an authoritarian nature. In the academic field, two main views are perceived, one pragmatic and experimental, and the other based on humanist and critical studies (Andion, 2012).

In turn, the Pluralist line predominated in the 1980s, covering the redemocratization period – peaking in 1985. It is correlated with the radical structuralism and radical humanism paradigm and perceives public administration as a political science, given the renewed interest in the dialogue between both fields. Studies went on to be concerned with the participation of social actors in defining political agendas and in expanding social control (Andion, 2012). Within the

scope of the redemocratization period, Abrucio (2007) highlights that it was necessary to limit the historical errors of the Brazilian public administration, many derived from the military regime, and propose solutions that took account of the new historical movement, which required a renewal of public management. In alignment with that moment, Paes de Paula (2005) indicates Brazilian mobilizing movements with an interest in shedding light on the importance of civil society in politics, with an emphasis on the critical view of the context of Brazilian public administration, making it more flexible for popular participation.

A strong influence can be verified of the Pluralist line on the building of the 1988 Federal Constitution, given the participation of society in the design, implementation, and social control of public policies. Initially, regarding the elaboration, Rocha indicates that through "popular amendments, society was able to actively participate in the process of elaborating the current Magna Carta, presenting proposals for the constitutional text... and guaranteeing mechanisms for participation in the federal and local decision-making process" (2008, p. 135). With reference to the direct participation of society, social control is expressed through the possibility of proposing laws, as well as the sovereignty ensured by popular initiative, plebiscite, and referendum.

In contrast to the nationalist movement, in the international context, starting in the 1970s, there began a radical liberal ideological wave – neoliberalism. The Social State, in developed countries, and the Developmentalist State, in underdeveloped and developing countries, such as Brazil, perceived pressures from neoliberalism to promote the reduction of the state apparatus and its social functions, with the aim of returning to the Liberal State of the 19th century (Bresser-Pereira, 2010). This neoliberal offensive reproduced the classic class conflict, with the capitalist or bourgeois class on one side, and the professional or techno-bureaucratic class on the other. In the midst of that wave, in Great Britain in the 1980s there emerged the Managerial Reform of the State, also called the Public Management Reform – the second major reform of the modern State apparatus (Bresser-Pereira, 2010).

It was at that moment that New Public Administration (NPA) emerged, understood as the science of management, born in Great Britain around 1980 (Bresser-Pereira, 2010; Capobiango, Nascimento, Silva, & Faroni, 2013; Esmark, 2016), disseminated by Osborne and Gaebler (1992) and correlated with the functionalist paradigm. It presents three main themes: incentive system, disaggregation, and competition (Dunleavy, Margetts, Bastow, & Tinkler, 2005). This movement is characterized by a normative model formed of theoretical approaches that complement each other, which enables, based on principles derived from the market, a new view of the public sphere and its workings (Abreu et al., 2013). In NPA, reforms aim to restructure the State by substituting the bureaucratic model with a management model based on competition and with a focus on results (Andion, 2012). Bresser-Pereira was an exponent of that trend in public administration in Brazil during the period in which he was Minister of Federal Administration and Reform of the State (MARE), in Fernando Henrique Cardoso's (1992-1999) government. He proposed the Social-Liberal Democratic State, which would remain responsible for protecting social rights, however it gradually ceased to directly carry out the functions of education, health, and social assistance, publicizing them to non-state public organizations (Bresser-Pereira, 1998, 2002). In this line, the public service user is characterized as a client, similarly to the market.

These organizations, despite being characterized as non-state, would participate in state budgetary forecasts (Bresser-Pereira, 1998, 2002, 2017). For Bresser-Pereira (2017), the

publicization of public services non-exclusive to the state is an answer for greater efficiency and the reduction of costs of social services provided, neutralizing, above all, intense efforts and criticisms of the highest classes in society with regard to reducing the tax bill. Thus, the managerial reform of the state based on the NPA line is a form of legitimization of the social state.

The New Public Service (NPS) proposal, in turn, emerged as a counterpoint to the State-centric and NPS lines. It is correlated with the interpretivist paradigm of Burrell and Morgan (1979), with a subjective nature of the science and social reality based on regulation. In Brazil, the NPS line is recent and primarily occurred after the 1995 (Andion, 2012). It comprises a new management model based on democratic and citizenship theories; community and civil society models; as well as organizational humanism and discourse theory (Andion, 2012). In addition, with origins in the Brazilian mobilizing tradition starting in the 1960s and peaking in the 1980s, there emerged the notion of Societal Public Administration (SPA) (Paes de Paula, 2005). This line proposes a new public management model, opposing the bureaucratic style of management and seeking to expand democracy through greater inclusion and participation of organized society in public administration (Capobiango et al., 2013). In this line, the citizen is seen as a partner of the State, deciding his/her destiny as a person, voter, and worker (Paes de Paula, 2005).

Contemporaneously, after Lula's neodevelopmentalist government (2003-2011) (Erber, 2011), which faced heavy criticism in relation to the pension crisis, the high tax burden, and assistentialism (Fonseca, Cunha, & Bichara, 2013) and that of Dilma (2011-2016) – who suffered a controversial impeachment – a new wave of neoliberalism is verified at the national economic-political level, starting in Michel Temer's government (2016-2019), with the establishment of the labor reform through Law n. 13,467 (2017), which deeply altered work relations since the enactment of the Consolidation of Labor Laws (CLT) in 1943 (Carvalho, 2017), establishing flexible working hours and remuneration.

With the inauguration of Bolsonaro (2019-2022) to the office of head of the Federal Executive power, there has been an alignment of liberal policies with a view to destatization, pension reform – with the enactment of Constitutional Amendment n. 103 (2019) – and reform of the public administration. Recently, with effect, the government has been rocked by the pandemic resulting from the new coronavirus (SARS-CoV-2), requiring emergency measures to avoid misery among the population and maintain the economy at minimally viable levels. Thus, the liberal alignment of the Government has clashed with income transfer policies through necessary state intervention. Despite the political-economic-social shock occurring with the health crisis, in this period alignment with the functionalist objectives of NPA is verified, added to the continuous intention to debureaucratize the state through the Secretary of State for Administration and Debureaucratization, linked to the Ministry of the Economy.

In the international context, Dunleavy et al. (2005) propose Digital Era Governance (DEG), in which the public administration puts aside self-centralization of structure and places citizens at the center of its activities. The authors argue that advances in the use of information and communication technologies (ICT) have brought deep cultural, cognitive, behavioral, and political changes in society – which intervene and require new forms of administrative service provision. Strongly linked to ICT, the DEG proposal brings the perspective of coproduction of the government with society and reintegration of public agencies, firmly opposing the decentralization proposed

by NPA. The authors argue that the key elements of DEG are reintegration, a holistic view of administration based on the needs of society (need-based holism), and digitization changes.

On the first point – reintegration – it is argued that the decentralization sustained by NPA brought difficulties for users of the public service and for other civil society actors, since they were given the burden of integrating public services in useable packages. Regarding the second point – needs-based holism – it is advocated that the public administration should rethink its processes point to point, with the aim of seeking agility in the provision of services to users, eliminating unnecessary stages, verifications, forms, and compliance costs. Finally, the third point – digitalization changes – refers to the use of the internet and means of communication by governments. Instead of complementing administrative processes, online channels play a genuine role of transformation, toward totally digital processes, giving rise to electronic systems and new forms of automatization of service provision through zero touch technologies (ZTT), that is, without the need for human intervention (Dunleavy et al., 2005).

In the national context, there is a verified scarcity of articles that directly cover DEG. In spite of that, Cepik, Canabarro, and Possamai (2014) discuss the theme and indicate that the true and complete DEG transformation will only be achieved if the points of popular participation defended by SPA are considered. In addition, the interest for a government and ICT intersection can be verified in various authors (Gomes, Moreira, & Silva Filho, 2020; Guimarães & Medeiros, 2005). Yet, it is perceived that the studies are fragmented and revolve around DEG (e.g. electronic government, e-gov, e-government, electronic governance, digital governance, and digital government). These authors indicate ICT as key elements for overcoming the limitations of NPA and SPA (Cepik et al., 2014) and, through measuring the level of digital governance in 108 education autarkies and foundations in Brazil, only 54.67% provision of means for popular participation was verified (Gomes et al., 2020), confirming the continuity of the low influence of civil society on decisions that establish the government agenda over the internet (Guimarães & Medeiros, 2005).

Regarding the practical field of DEG, the institutionalization of government purchases can be identified in the public tender modality, Law n. 10,520 (2002), an improvement of Public Tenders Law n. 8,666 (1993); the wavering of signature recognition and the establishment of the Debureaucratization and Simplification Seal, through Law n. 13,726 (2018), which encourages the streamlining of administrative processes and procedures, the elimination of unnecessary formalities, social gains derived from the debureaucratization measure, a reduction in waiting time for public service provision, and the adoption of technological or organizational solutions. More recently, Decree n. 10,322 (2020) was published, substituting Decree n. 8,638 (2016), establishing the Digital Government strategy for the period from 2020 to 2022, within the scope of the federal public administration, which was organized in eighteen objectives, including: the provision of digital public services; unique digital access; integrated public services; the citizen's participation in the elaboration of public policies; and digital as a source of resources for essential public policies. It can also be affirmed that the pandemic context may have accelerated the digitization changes, since a large portion of the services has been provided with the support of ICT – online meetings, remote attendance, digital signatures – also stimulating networking.

Regarding the weaknesses of DEG, Dunleavy et al. (2005) mention the storage of personal data without adequate privacy rights, especially when linked to biometric and genetic information.

In addition, presenting a counterpoint to a Dunleavy et al., (2005), Esmark (2016) argues that DEG is infamously linked to the death of NPA. For the author, it involves a transition toward the post-NPA, widening the concern with the creation of networks, instead of quasi markets.

A summary of the main public administration trends, as well as their updating with DEG, can be visualized in Figure 2, which relates the lines of Brazilian public administration with the variable influence (y axis) versus time (x axis). It should be noted that the influence of a particular line can fluctuate over time. It also warrants mentioning that the constant arrangement on the timeline in this paper recognizes the amalgam present in the public administration trends, which implies the recognition that the arrangement brings to the debate the most prominent and influential characteristics at a particular political-historical moment of the Brazilian public administration, not reducing to the idealized linear analysis with pure characteristics.
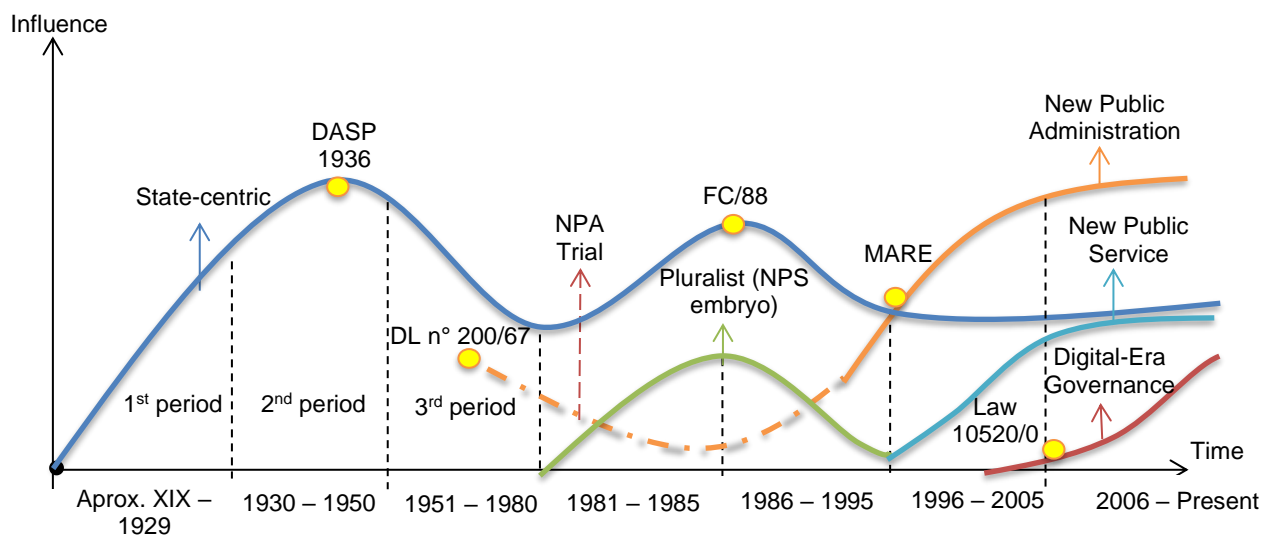
DL – Decree Law; FC – Federal Constitution

Figure 2. Timeline of the public administration trends in Brazil

Source: Elaborated by the authors.

Figure 2, therefore, enables a summary of the discussion developed up to here, by finding the growing influence of the State-centric line in its first two periods, with it weakening in the third, represented by the Management Reform trial derived from Decree Law n. 200 (1967). In 1980, the development of the Pluralist line occurred – an embryo of NSP – influencing the elaboration of the 1988 Federal Constitution – a milestone in of the Counter-Reformation of the State – which aimed to conclude the bureaucratic reform. It was then in 1995 that the managerial reform was developed, aligning with NPA. But it was after the technological revolution of the 2000s, reinforced by widespread access to social media by society and by the use of ICT in administration, that DEG has given new directions to the timeline and to public activities. Thus, the coexistence of amalgamated patrimonialist, bureaucratic, managerialist, and governance practices is verified on the timeline.

The dominant lines of public administration face some criticisms. Raadschelders (1999) affirms that the discipline faces theoretical and methodological weaknesses, given the controversy regarding its epistemological status, the breathless search for trends in the study and practice, the emphasis on practice at the cost of academia, the lack of responsiveness to the needs of the actors in practice, the need for new bases in governance, constitutionalism, and in the pragmatic philosophy.

Epistemologically, by analyzing the administration trends in Brazil, Guerreiro-Ramos (1989) already highlighted that the functionalist paradigm is predominant and stimulates an objectivist view in the field, with little space for the historicity, conflict, and subjectivity of political actors. Citizens are interpreted in most cases as organizational men, whose role is to adapt to the rules of the system, or as economic men who seek to maximize their gains.

Abreu et al. (2013), in turn, argue that NPS emerges as a criticism of the dominant theory of public administration, considered a rational administration model that has at least three important limitations: (a) it is based on a narrow and restrictive view of human reason; (b) it is supported by an incomplete understanding of knowledge acquisition; and (c) it prevents an adequate connection between theory and practice. The authors affirm that a phenomenological approach would enable us to reach the essence of the phenomena, through a fuller and more complex view of society. They also affirm that criteria such as equity and justice are more appropriate for the development of public administration.

Analysis of the lines of public administration in light of the epistemic matrices

The paradigmatic debate has been given new meaning by Paes de Paula (2016) by proposing the Circle of Epistemic Matrices with the aim of sustaining the new line of thinking of organizational studies and overcoming the proposition of Burrell and Morgan (1979). The author proposes a circle divided into three equal parts, guided by the cognitive interests discussed by Jürgen Habermas, containing the matrix that is "empirical-analytical (technical interest), the hermeneutic matrix (practical interest), and the critical matrix (emancipatory interest)" (Paes de Paula, 2016, p. 25), as according to Figure 3.
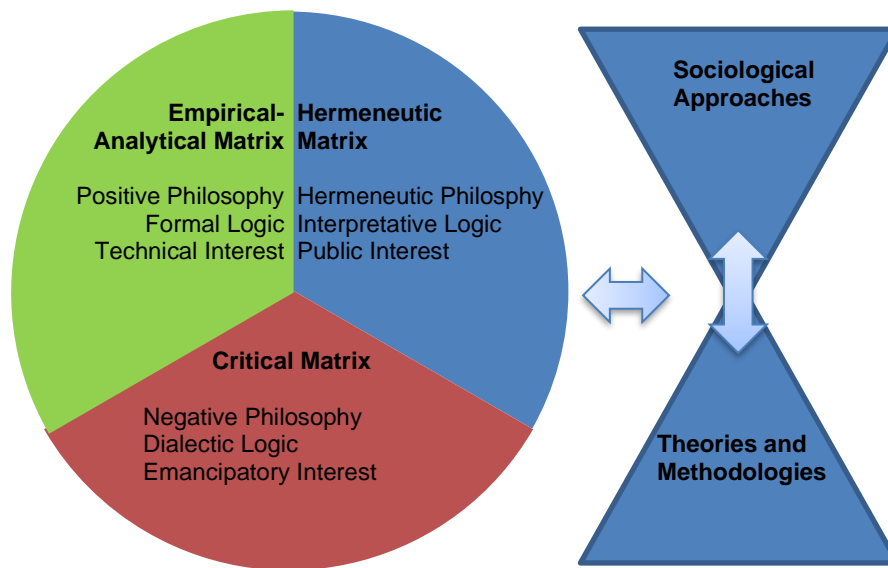
Figure 3. Circle of epistemic matrices, sociological approaches, theories, and methodologies

Source: Paes de Paula, A. P. (2016). Beyond the paradigms in Organizational Studies: the Circle of Epistemic Matrices. *Cadernos EBAPE.BR*, *14*(1), 24-46.

The author affirms that the knowledge in social sciences and in organizational studies, unlike natural sciences, is not developed due to paradigmatic rivalries, incommensurabilities, and scientific revolutions, as proposed in the Kuhnian logic (Kuhn, 1997) and operationalized by Burrell and Morgan (1979); but because "in the investigation of social phenomena, cognitive incompletenesses occur that lead the researchers to seek other theories, methodologies, sociological approaches, or even other epistemic matrices" (Paes de Paula, 2016, p. 38).

The theses of cognitive incompleteness and of epistemic reconstructions are used as a basis for explaining the dynamic of the sociological approaches present in the Circle of Matrices. Paes de Paula (2016) affirms that, in the construction of a sociological approach, there may be knowledge gaps of its founders in the articulation of its elements. So, to retrieve them, due to the cognitive incompletenesses, researchers need to perform an excavation job to find them and recombine them. Thus, new methodologies and theories are created or improved, with embryonic and advanced epistemic reconstructions being carried out.

Therefore, instead of paradigms, epistemic matrices are proposed; instead of incommensurabilities, cognitive incompletenesses occur; and the scientific revolutions are substituted by epistemic reconstructions. The author discusses the proposition of the circle:

The Circle of Epistemic Matrices proposition is consistent with organic thinking, which enables movement in the construction in knowledge, reinforcing the idea of flexibility and adding, in a natural way, the unlimited potential of human knowledge in a totality. This is based on epistemic elements that concatenate the types of philosophy and logic,

as well as the Habermasian cognitive interests, which constitute the three matrices. (Paes de Paula, 2016, p. 36)

The Circle of Epistemic Matrices is formed of three matrices: empirical-analytical, hermeneutic, and critical. The empirical-analytical matrix is characterized by three elements: alignment with positive philosophy, the use of formal logic, and a preference for the technical interest. In turn, the hermeneutic matrix is characterized by alignment with hermeneutic philosophy, by the use of interpretative logic, and by a preference for the practical interest. The critical matrix, in turn, is characterized by alignment with negative philosophy, by the use of the dialectic logic, and by a preference for the emancipatory interest (Paes de Paula, 2015, 2016).

For Paes de Paula (2015, 2016), some sociological approaches are pure, as they identify with a single epistemic matrix and tend to remain stationary. This is the case of the functionalist, interpretivist, and humanist approaches. However, some sociological approaches are hybrid, since they connect elements from more than one epistemic matrix and contemplate more than one cognitive interest, being generated based on advanced epistemic reconstructions: this is the case of the structuralist (empirical-analytical matrix and hermeneutic matrix), the post-structuralist (hermeneutic matrix and critical matrix), and the critical realist (empirical-analytical matrix, hermeneutic matrix, and critical matrix) approaches.

It is important to highlight that for the author there is interdependence between the epistemic matrices, so that the full understanding of what is real is possible through the analysis of its whole. It is up to the researcher, however, to assume their cognitive limitation in the scientific activity, given that:

> The emancipatory interest alone becomes critical through the critique, given that it depends on the practical and technical interest to crystalize in actions; the isolated public interest tends to transform into pure understanding and description, since it needs the technical and emancipatory interests to be able to interfere in the reality; and the technical interest alone is converted into instrumentalism, as it is also necessary to contemplate the social needs of understanding and emancipation. (Paes de Paula, 2016, p. 37)

From analyzing the lines of public administration in relation to the Circle of Epistemic Matrices, it is verified that the State-centric and New Public Administration lines align with the functionalist approach and are included in the empirical-analytical matrix, given that the formal objective of the former was to structure a meritocratic and professionalized public administration and that of the latter was to elaborate a management model based on competition and with a focus on results (Andion, 2012). Both lines are characterized by pure sociological approaches, carrying out embryonic epistemic reconstructions by moving to the boundary between the other epistemic matrices.

The NPS line, in turn, is characterized by an interpretivist approach that circles the hermeneutic matrix. Paes de Paula (2016) affirms that this approach is pure, despite making a criticism affirming that not all theories and methodologies generated are capable of reaching

hermeneutics per se and the practical interest. As is known, this line puts an "emphasis on understanding the reality of the public administration, considering the subjectivity of politics (importance of values)" (Andion, 2012, p. 14), demonstrating practical interest.

By orbiting around two sociological approaches, the humanist and the structuralist ones, the Pluralist line, in turn, is characterized as being an advanced epistemic reconstruction, with dialogue between the critical epistemic, empirical-analytical, and hermeneutic matrices. With regard to the (pure) humanist approach, aligning with the critical matrix, there is emphasis on the mobilization of civil society and in its actions as a subject of social change (Andion, 2012). Regarding its alignment with the structuralist approach, considered a hybrid sociological approach by Paes de Paula (2015, 2016), there is emphasis on the relationships between the State and Society as a space of conflict between the social classes (Abreu et al., 2013; Andion, 2012), which is encountered orbiting between the empirical-analytical and hermeneutic epistemic matrices.

In turn, DEG is developed in public administration as a way of overcoming the dysfunctions of NPA (Dunleavy et al., 2005). There is a perceived interest of this line in the provision of efficient services to society, with support from information and communication technologies and, simultaneously, the need for users to actively participate in the formulation and monitoring of public policies together with the government. Thus, this line presents technical and practical interest, correlating with the functionalist and interpretivist approaches. In the circle of epistemic matrices, DEG can be found orbiting in the empirical-analytical and hermeneutic matrices, constituting a hybrid sociological approach.

Figure 4 presents the new picture of the lines of public administration in the circle of epistemic matrices proposed by Paes de Paula (2015, 2016).
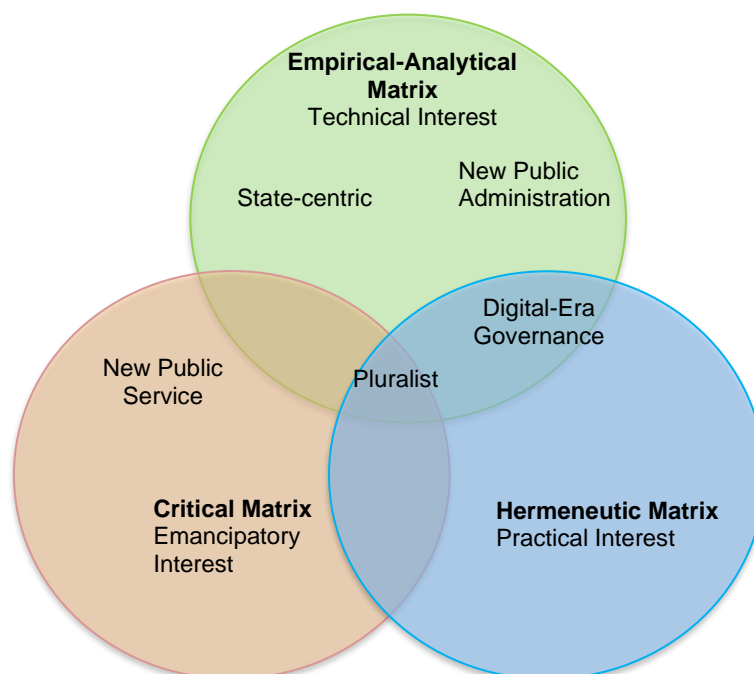

Figure 4. Relationship between epistemic matrices and lines of public administration

Source: Elaborated by the authors.

The State-centric and New Public Administration lines are included in the empirical-analytical matrix, while New Public Service is included in the critical matrix, followed by Digital Era Governance in the empirical-analytical and hermeneutic matrices. Finally, the Pluralist line orbits in the intersection of the three epistemic matrices.

Paes de Paula (2015, 2016) states that, although contradictory, the technical, practical, and emancipatory interests should constitute a unit of knowledge, since the social phenomena are presented according to a set of interests, as there is no way of separating them. Similarly, the lines of public administration can be pondered, understanding that their coexistences do not imply a contradiction, since public activity, as a unit of knowledge, requires them to account for what is real, contemplating various cognitive interests, providing new solutions for social problems.

In the scientific field of public administration, as shown in Figure 2, there is oscillation of the influence of the State-centric, Pluralist, New Public Administration, New Public Service, and Digital Era Governance lines over time. These lines coexist as an amalgam. That coexistence shows the cognitive incompleteness in which the lines of the field find themselves.

Thus, the Kuhnian epistemological logic (Kuhn, 1997), based on paradigmatic incommensurability, is incapable of explaining the complex coexistence relationships present on the timeline of administrative trends, giving strategic place to the epistemic matrices, through cognitive incompletenesses. There are verified efforts for the discontinuity of bureaucratic practices, while the new public administration is growing. There is also verified growth in popular participation, through co-creation in the planning of public policies, raising the tendency for DEG to influence public activities in administration, especially due to the pandemic context and the need for continuity in the provision of services to society.

Therefore, it is beneficial to consider a dialogue between the trends, with the aim of encouraging new combinations, as they integrate complementary and interdependent cognitive interests, recognizing the cognitive incompleteness this field is subject to, in order to enable eloquent epistemological development of the literature.

Concluding remarks

This paper sought to contribute to the development of the field of public administration by conducting an epistemological study of the main trends in the field, updating them with the Circle of Epistemic Matrices proposed by Paes de Paula (2016) and bringing to the debate the situational political-economic context of the country.

It is confirmed that the functionalist approach has a strong influence on the area, with it being present in the State-centric and New Public Administration lines. However, more recent approaches, such as New Public Service (hermeneutic matrix) and Digital Era Governance (empirical-analytical and hermeneutic matrix) bring to light epistemological and methodological development opportunities by emphasizing the protagonism of society in defining public policies together with the State. The Pluralist line, in turn, presents advanced epistemic reconstructions and can contribute to a dialogue between technical, practical, and emancipatory interests in public administration.

In the practical field, there is a demand for a valuation, training, and development program for public administrators that creates techno-political experts capable of negotiating, researching, bringing society and interests together, planning, executing, and assessing (Paes de Paula, 2005). For Abreu et al. (2013), there are structured experiences of coproduction of the public good, for example cooperatives, social organizations, interorganizational networks, and public-private partnerships (PPP). However, the practical level of activity can be raised to more (co)productive levels. In addition, verifying the emergence of DEG with a focus on the coproduction of public policies and considering that the population is increasingly demanding and aware of its rights and obligations, it is up to the administration (a) to draw closer to citizens, making them partners of the State, (b) provide facilitated access to public services through digital means, and (c) take the needs of the population as a basis for implementing public policies and services.

In the theoretical field, more specifically in relation to DEG, this needs to be developed methodologically as an emerging trend of public administration in the Brazilian context, aiming to systematize and dialogue with the constructs that orbit its alignment (e.g. digital governance and government). Its structural management dimensions – institutional-administrative, sociopolitical, and economic-financial – also need to be reinforced, given the predominance of the first two (Cepik et al., 2014), with the aim of developing an organic and robust model. There is also the incentive for new lines to be designed, in the sense of providing greater dialogue between epistemic matrices and their interests. The search of the social scientist and scholar of organizations should be, within their domain of activity, to broaden their knowledge horizons, carrying out studies that seek to cover the three types of interest, but always aware of their cognitive incompletenesses and of the limitations imposed by the domain of what is real (Paes de Paula, 2015, 2016).

With the aim of scientifically reinforcing and building an own identity for the Brazilian public administration, recognition between the various sociological approaches in the lines of public administration provides important scientific development possibilities for the discipline. It is in that space that public administration is presented with the proposal to use the Circle of Epistemic Matrices, in order to better capture the diffuse interests of the population interested in the provision of quality public services, taking into consideration that the instrumental rational logic is insufficient to explain the phenomena of the reality, even if it is needed for the streamlining of public goods and interests.

Finally, as an agenda for future research, we propose investigating the influence of DEG on the national and international context of public organizations; studying how society has had an impact on changes in public service provision with the advent of new ICT; identifying the changes occurring in public administration in the pandemic context; and understanding which trends are predominant in the field and how they converse.

References

Abreu, A. C. D., Helou, A. R. H. A., & Fialho, F. A. P. (2013). Possibilidades epistemológicas para a ampliação da Teoria da Administração Pública: uma análise a partir do conceito do Novo Serviço Público. *Cadernos EBAPE.BR*, *11*(4), 608-620. Retrieved from https://bit.ly/3p6ummQ

Abrucio, F. L. (2007). Trajetória recente da gestão pública brasileira: um balanço crítico e a renovação da agenda de reformas. *Revista de Administração Pública*, *41*(spe), 67-68. doi:10.1590/S0034-76122007000700005

Andion, C. (2012). Por uma nova interpretação das mudanças de paradigma na administração pública. *Cadernos EBAPE.BR*, *10*(1), 1-19. Retrieved from https://bit.ly/3pwSyiH

Bresser-Pereira, L. C. (1996). Da administração pública burocrática à gerencial. *Revista do Serviço Público*, *47*(1), 7-40. doi:10.21874/rsp.v47i1

Bresser-Pereira, L. C. (1998). Uma reforma gerencial da administração pública no Brasil. *Revista do Serviço Público*, *49*(1), 5-42. doi:10.21874/rsp.v49i1.360

Bresser-Pereira, L. C. (2002). Reforma da nova gestão pública: agora na agenda da América Latina, no entanto. . . *Revista do Serviço Público*, *53*(1), 5-27. doi:10.21874/rsp.v53i1.278

Bresser-Pereira, L. C. (2010). Democracia, Estado social e reforma gerencial. *Revista de Administração de Empresas*, *50*(1), 112-116. doi:10.1590/S0034-75902010000100009

Bresser-Pereira, L. C. (2017). Managerial reform and legitimization of the social state. *Revista de Administração Pública*, *51*(1), 147-156. doi:10.1590/0034-7612166376

Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organisational analysis: elements of the sociology of corporate life*. Vermont: Ashgate.

Capobiango, R. P., Nascimento, A. L., Silva, E. A., & Faroni, W. (2013). Reformas administrativas no Brasil: uma abordagem teórica e crítica. *Revista de Gestão*, *20*(1), 61-78. doi:10.5700/rege487

Carvalho, S. S. (2017). Uma visão geral sobre a reforma trabalhista. *Mercado de trabalho: conjuntura e análise*, *63*, 81-94. Retrieved from https://bit.ly/3LUqsam

Cepik, M. A. C., Canabarro, D. R., & Possamai, A. J. (2014). Do novo gerencialismo público à governança na era digital. In: M. A. C. Cepik, & D. R. Canabarro (Eds.) *Governança de TI: transformando a administração pública no Brasil* (pp. 11-26). Porto Alegre, RS: UFRGS.

Costa, F. L. (2008). Brasil: 200 anos de Estado; 200 anos de administração pública; 200 anos de reformas. *Revista de Administração Pública*, *42*(5). doi:10.1590/S0034-76122008000500003

Decreto n. 8.638, de 15 de janeiro de 2016 (2016). Institui a Política de Governança Digital no âmbito dos órgãos e das entidades da administração pública federal direta, autárquica e fundacional. Brasília, DF: Presidência da República. Retrieved from https://bit.ly/3sc328z

Decreto n. 10.332, de 28 de abril de 2020 (2020). Institui a Estratégia de Governo Digital para o período de 2020 a 2022, no âmbito dos órgãos e das entidades da administração pública federal direta, autárquica e fundacional e dá outras providências. Brasília, DF: Presidência da República. Retrieved from https://bit.ly/3sbOlCG

Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2005). New public management is dead — long live digital-era governance. *Journal of Public Administration Research and Theory*, *16*(3), 467-494. doi:10.1093/jopart/mui057

Emenda Constitucional n. 103, de 12 de novembro de 2019 (2019). Altera o sistema de previdência social e estabelece regras de transição e disposições transitórias. Brasília, DF: Presidência da

República. Retrieved from https://bit.ly/3hcuFs0

Erber, F. S. (2011). As convenções de desenvolvimento no governo Lula: um ensaio de economia política. *Revista de Economia Política*, *31*(1), 31-55. doi:10.1590/S0101-31572011000100002

Esmark, A. (2016). Maybe it is time to rediscover technocracy? an old framework for a new analysis of administrative reforms in the governance era. *Journal of Public Administration Research and Theory*, *27*(3), 501-516. doi:10.1093/jopart/muw059

Fonseca, P. C. D., Cunha, A. M., & Bichara, J. S. (2013). O Brasil na era Lula: retorno ao desenvolvimentismo? *Nova Economia*, *23*(2), 403-428. doi:10.1590/S0103-63512013000200006

Gomes, D. F. R., Moreira, M. F., & Silva Filho, E. P. (2020). Participação cidadã: o gap da governança digital nas autarquias e fundações da educação no Brasil. *Organização e Sociedade*, *27*(94), 431-458. doi:10.1590/1984-9270943

Guerreiro-Ramos, A. A. (1989). *Nova ciência das organizações: uma reconceitualização da riqueza das nações.* Rio de Janeiro, RJ: Fundação Getulio Vargas.

Guimarães, T. A., & Medeiros, P. H. R. (2005). A relação entre governo eletrônico e governança eletrônica no governo federal brasileiro. *Cadernos EBAPE.BR*, 3(4), 1-18. doi:10.1590/S1679-39512005000400004

Kuhn, T. (1997). A estrutura das revoluções científicas (5th ed). São Paulo, SP: Perspectiva.

Keinert, T. M. M. (1994). Os paradigmas da administração pública no Brasil (1900-92). *Revista de Administração de Empresas*, *34(*3), 41-48. doi:10.1590/S0034-75901994000300004

Keinert, T. M. M. (2000). *Administração pública no Brasil: crises e mudanças de paradigma*. São Paulo, SP: Annablume.

Lei n. 8.666, de 21 de junho de 1993 (1993). Regulamenta o art. 37, inciso XXI, da Constituição Federal, institui normas para licitações e contratos da Administração Pública e dá outras providências. Brasília, DF: Presidência da República. Retrieved from https://bit.ly/35lqirQ

Lei n. 10.520, de 17 de julho de 2002 (2002). Institui, no âmbito da União, Estados, Distrito Federal e Municípios, nos termos do art. 37, inciso XXI, da Constituição Federal, modalidade de licitação denominada pregão, para aquisição de bens e serviços comuns, e dá outras providências. Brasília, DF: Presidência da República. Retrieved from https://bit.ly/3BNooww

Lei n. 13.467, de 13 de julho de 2017 (2017*).* Altera a Consolidação das Leis do Trabalho (CLT), aprovada pelo Decreto-Lei nº 5.452, de 1º de maio de 1943, e as Leis n º 6.019, de 3 de janeiro de 1974, 8.036, de 11 de maio de 1990, e 8.212, de 24 de julho de 1991, a fim de adequar a legislação às novas relações de trabalho. Brasília, DF: Presidência da República. Retrieved from https://bit.ly/3LYpCJG

Lei n. 13.726, de 8 de outubro de 2018 (2018). Racionaliza atos e procedimentos administrativos dos Poderes da União, dos Estados, do Distrito Federal e dos Municípios e institui o Selo de Desburocratização e Simplificação. Brasília, DF: Presidência da República. Retrieved from https://bit.ly/3vcmQut

Mendes, A. M. (2007). *Psicodinâmica do trabalho: teoria, método e pesquisa.* São Paulo, SP: Casa Psi.

Mendes-Da-Silva, W. (2019). Contribuições e limitações de revisões narrativas e revisões sistemáticas na área de negócios. *Revista de Administração Contemporânea*, *23*(2), 1-11. doi:10.1590/1982-7849rac2019190094

Osborne, D., & Gaebler, T. (1992). *Reinventing government: how the entrepreneurial spirit is transforming the public sector.* New York: Plume.

Paes de Paula, A. P. (2005). Administração pública brasileira entre o gerencialismo e a gestão social. *Revista de Administração de Empresas*, *45*(1), 36-49. doi:10.1590/S0034-75902005000100005

Paes de Paula, A. P. (2015). *Repensando os estudos organizacionais*: por uma nova teoria do conhecimento. Rio de Janeiro, RJ: Fundação Getúlio Vargas.

Paes de Paula, A. P. (2016). Para além dos paradigmas nos Estudos Organizacionais: o Círculo das Matrizes Epistêmicas. *Cadernos EBAPE.BR*, *14*(1), 24-46. doi:10.1590/1679-395131419

Raadschelders, J. C. N. (1999). A coherent framework for the study of public administration. *Journal of Public Administration Research and Theory*, *9*(2), 281-303. Retrieved from https://bit.ly/3vcrTv6

Rocha, E. (2008). A constituição cidadã e a institucionalização dos espaços de participação social: avanços e desafios. In F. T. Vaz, J. S. Musse, & R. F. Santos (Coords.), *20 anos da constituição cidadã: avaliação e desafio da seguridade social* (pp. 131-148). Brasília, DF: Anfip.

Secchi, L. (2009). Modelos organizacionais e reformas da administração pública. *Revista de Administração Pública*, *43*(2), 347-369. doi:10.1590/S0034-76122009000200004

Funding

Authorship

Patrícia Araújo Silva

Master's in administration from the State University of Ceará (UECE). Works as an administrator at the Federal University of Ceará (UFC).

E-mail: patricia.araujo@ufc.br

ORCID: https://orcid.org/0000-0003-3809-0649

Ana Cristina Batista dos Santos

PhD in administration from the Federal University of Rio Grande do Norte (UFRN). Professor and

researcher at the State University of Ceará (UECE).

E-mail: ana.batista@uece.br

ORCID: https://orcid.org/0000-0001-8838-6937

Conflict of interests

The authors declare that there is no conflict of interests.

Authors' contributions

First author: conception (equal), formal analysis (equal), methodology (equal), supervision (support), writing – original draft (leader), writing – reviewing and editing (leader).

Second author: conception (equal), formal analysis (equal), methodology (equal), supervision (leader), writing – original draft (support), writing – reviewing and editing (support).

Plagiarism analysis

The O&S carries out a plagiarism analysis of all documents approved for publication, using a specific tool.

Availability of data

The O&S encourages data sharing. However, to respect ethical principles, it does not require the disclosure of any means of identifying the research participants, thus fully preserving their privacy. The open data practice seeks to ensure transparency of the research results, without revealing the identity of the research participants.