

CrossRef DOI of original article:

Administration: Science, Art or Technique? A Reflective Look at the Epistemological Status of the Administration

Marcelo A. Rangel R.

Received: 1 January 1970 Accepted: 1 January 1970 Published: 1 January 1970

Abstract

The study of the administrative work of man has raised the statement of different epistemic perspectives exclusive of each other. This perspective coincides with delineating the organization as a central element of the discipline and, administrative processes as an exclusive object of study; disagreeing on the way of understanding the nature of the organization as of the administrative action, and, therefore, in the methods used for its investigative approach.

Index terms— administration, epistemology, science, art, technique.

1 I. Introduction

he approach to the administrative process or phenomenon has originated the construction of different epistemic perspectives, exclusive of each other. These definitions have been oriented as action, process, system, or phenomenon showing its practical application (processes, system, or administrative functions) and its teleological purpose -the fulfillment of the organizational objective(s) or purpose (s). This understanding of the epistemic in the sense of creation and individual or collective construction of knowledge, in this case, establishes the administrative reality.

A rational perspective has led to the construction of a generally objectivist epistemological vision. Depending on the author, the administration is glimpsed as science, technique, or socio-technics (Bunge, Bertolucci, Kliksberg among others). On the other hand, this reality from a relative perspective is assumed from a subjectivist epistemological vision leading to contemplate administration as a social discipline and even as art (Drucker, Gulick and Urwick, Valladares Rivera, Metcalfe, Mintzberg, etc.).

In this discursive thread, it is inevitable to question whether the administration is a science, an art, or a technique. Nevertheless, it demonstrates an unfinished discussion about the dimensions that configure and determine its epistemological status. This issue drives the present reflection.

Before advancing on this journey, it is necessary to highlight the following premises: First, the influence on the epistemic status of the administration (dissociation between science and philosophy) is due to the historical struggle given by the hegemony of some of these disciplines. Second, the notion of epistemology in this article refers to the way of approaching reality and the conditions under which facts and objects can become knowledge (Sandín, 2003). These theoretical foundations and methods of study of the administration are inferred. Third, the process of theoretical/practical articulation is considered a teleological aspect of the administrative discipline. Therefore, its purpose is to properly and successfully manage the elements, resources, or talents existing in an organization, whatever their nature, to fulfill or achieve the objectives or purposes set from their work (Taylor, 1969; Ayol, 1980; Oontz & Heinz, 1998; Drucker, 1989). Last, the organization is understood here as a multidimensional space, to which different logics of action relate (technical, economic, political, cultural, emotional, etc.). Therefore, multiple actors with individual interests converge showing conflict and power. These are basic ingredients for its operation, which is also built on various structures and represents multiple projects difficult to dissociate from the rest of the other social constructions. These facts make up everyday life (Barba, 2013).

The article is an open reflection, guided by a qualitative methodological approach, which emphasizes a critical abstraction with nuances of complexity, or vice versa, given through dialogic argumentation. The reflection is based on a documentary review of the notion of administration. Its object, nature, and main T approaches of study have defined its epistemic status. Furthermore, some considerations are drawn about the characteristics of

47 the discipline that are considered epistemic obstacles to its understanding. An interpretation emerges from
48 the representation exposed here, which refers to a sense of creation and construction of knowledge in the
49 administration. It is necessary to add that new controversies and unknowns may arise regarding the representation
50 of administration as a theoretical-practical systemic epistemological framework that admits the complexity of
51 the administrative phenomenon as science, art, and technique.

52 2 II. Charting the Administrative Phenomenon

53 Human beings have developed various forms since the primitive era of humanity. Modes or manners to dispose
54 of resources have changed over the years, which helped to emerge the notion of administration. This category
55 refers to an activity proper to the human being that practices and develops to take advantage of its resources,
56 although in an intuitive and rudimentary way.

57 In ancient Greece, it was attributed to the purpose of better allocating the resources obtained, to meet
58 the proposed objectives, exercise authority, and delegate responsibility. Demographic expansion of man as
59 the emergence of rationalist and subjectivist visions caused these forms to result in an essentially cooperative
60 conception of administrative action (Mendoza, 2018). The industrial revolution brought with it the concern for
61 productivity and it led to the need to professionalize their actions. However, it was until the beginning of the
62 20th century that it became an object of scientific study due to the Taylorian approach to administration as
63 the origin and potential solution to industry problems. Taylor's theory generated questions that led to multiple
64 administrative schools: Scientific Approach (Stonner, Freeman, and Gilbert, 1995; Chiavenato, 2004; Rivas,
65 2009; and Barba, 2013).

66 Administrative approaches are more or less concerned about the same thing: efficiency, efficacy, or effectiveness
67 (depending on the theoretical perspective adopted). Therefore, the focus goes on whether the objectives of or
68 in an organization are met. But, the orientation towards the tasks (techniques or procedures) or relationships
69 (individual organization) varies between them. The postulates raised by the schools of administration define the
70 object of study of the administration. Furthermore, they have established the methods used by the administration
71 to give course to scientific inquiry and, it manages to validate the findings or results obtained, without neglecting
72 the description and explanation of the discipline as a social practice.

73 In this sense, the administration is the accumulated historical result of the contribution of scientists and
74 authors in multiple disciplines (mainly engineering, psychology, and sociology) which, are essentially nourished
75 by philosophy and science. These findings led to the systematization of new knowledge at the beginning of the
76 century and the end of the last century resulting in the birth of administration as a discipline due to the need to
77 want organizations to operate with optimal efficiency (Etzioni, 1979: 16).

78 Under this discursive thread, the administration is understood, firstly, in the etymological sense of the word
79 "administer", which comes from the Latin *ad*, which means "towards", "direction" or "tendency", and *minister*,
80 related to "subordination", "obedience" or "at the service of", recognized as an act of serving another, of taking
81 care of the goods or resources of another in particular, of taking care of the affairs of another, and, by extension,
82 administering also implies taking charge, caring, and Managing your affairs and resources.

83 In the same way, managing also means to rule or govern, it means directing the destinations, paths, and
84 pathways of an organization, company, community, city, or town, in such a way that its objectives or purposes
85 and its progress and well-being are achieved. Ayol (1980) conceived the administration in two senses: one of a
86 broad nature, related to the action of governing a company or organization towards the proposed end, and another
87 of a restricted nature referring to the administrative action of foreseeing, organizing, command, coordinate, and
88 control.

89 Due to the above, the administration has traditionally been defined as the process of planning, organizing,
90 directing, and controlling the use of resources to achieve organizational objectives (Chiavenato, 1995; Allanave,
91 2002). Thus, the existing theoretical distinctions between management approaches generally correspond to the
92 dimensions that are considered to address it as a phenomenon, The general purpose of the administration is
93 inferred. The organization, regardless of its nature (business, social, public, private, producer of goods or
94 services); and the specific object of study of the administration, the administrative action, that is, the processes
95 or functions (planning, coordination, execution, control, and evaluation) is established by the main purpose of the
96 organization. For example, from the classical Fayolian approach, the orientation goes in terms of processes, and
97 from Drucker's neoclassical approach, the emphasis is the functions. Nevertheless, both approaches imply the
98 achievement of the organization's objectives. In addition to this, the ultimate goal of the discipline is productivity,
99 in terms of generating products, profits, or value.

100 3 Global

101 4 III. Epistemic Status of Administration

102 Science, Art or Technique?

103 The epistemological status of administration has become an unfinished discussion about its admission as a
104 science, technique, or art, qualities that are generally mutually exclusive. This idea is relevant because it offers
105 a context in which the concern to understand the epistemological status of administration arises. The discussion
106 begins with the question: what is the adjective that accompanies it? The focus is on whether it should be

107 considered a science, art, or technique. Therefore, another question arises: what is its object and method of
108 study? This is to deepen the knowledge bases on administration. Furthermore, it validates a single body of the
109 experience of professionals in the area.

110 The epistemic status of administration can be delved into when it is observed the way it is presented in
111 our mind and consciousness: What is the appearance of this object like? What is its shape? This object is
112 undoubtedly made up of some elements that we know and, we can define it abstractly as part of human activity.
113 It is the result of an expression in the decisionmaking process and resource management through the processes
114 of planning, organization, direction, coordination, and control. More specifically, the element that configures
115 the administrative phenomenon under study is a specific human activity that consists of planning, organizing,
116 directing, coordinating, and controlling, in other words, the resources of an organization.

117 Considering this, what we call administrative science aims to study the phenomenon that could be observed as
118 a man acting. However, it is not any action, but what refers to planning, organizing, directing, coordinating, and
119 controlling activities or functions known in classical theory as administrative processes. Therefore, understanding
120 the way of generating knowledge of the administrative process can be glimpsed from two perspectives: a rational
121 one and a relative one.

122 From the rational or objective perspective, the first question adjective appears: science can be conceived as the
123 knowledge resulting from making use of a certain method to achieve an expected end. According to Bunge (2005),
124 science corresponds to a growing body of ideas characterized as rational, systematic, exact, verifiable knowledge,
125 through scientific research, and therefore fallible. In other words, it consists of creating theories, models, or
126 structures to represent the meanings of the reality that surrounds us. Science must be classified according to its
127 object of study, with social science being in charge of addressing the behavior and qualities of the Human Being.
128 In this way, since the administration is an activity proper to the human being, it can be conceived as a social
129 science.

130 Nevertheless, science adheres to the episteme, the logos, the demonstration-explanation, the empirical,
131 technical thought, rational and logical, as well as to the method based on the observation, deduction, and
132 demonstration of hypotheses elaborated around a specific, tangible, and intelligible phenomenon or object of
133 study (Abbagnano, 1951;Bunge, 1986). So, given the nature of the administration, this is the multiplicity
134 or complexity of its object of study, the heterogeneity of its theoretical postulates, as well as the indisputable
135 inherence of the context-phenomenon of study. Bunge (1986), states that administration does not comply with the
136 analytical, precise, verifiable, legal, or universal precepts typical of scientific knowledge to be properly considered
137 a science, conceiving it instead as a sociotechnical, in terms of administrative or technical (second adjective in
138 question).

139 Furthermore, Bunge (1980) establishes that the technique has reached such a high level that it is sometimes
140 difficult to differentiate science from social science. So, it aims to understand a part of reality, showing the
141 relation between cause-consequence or cause-effect relationship in terms of research. Technique aspires to
142 put this knowledge obtained into action through the creation or design of devices, action plans, or control
143 models (in the case of administration) on what is known by science closely linked to the context in which it is
144 proposed to apply or develop a design. This is how the denomination of administratécnia (mentioned previously)
145 arises, as a characterization of the system of disciplines that study the administrative phenomenon. It uses the
146 scientific method to understand and transform some of its aspects (tasks or activities, operation, relationships
147 individual-organization, or the management of all of the above in terms of efficacy, efficiency, or effectiveness,
148 The administration is constituted by a set of procedures, which are validated by knowledge and experience of
149 the general or particular application. These procedures and resources modeled by the profession of administrator
150 require constant exercise to acquire greater expertise and the ability to use them to solve practical problems.

151 5 Global

152 The technique is not different from art or science in its most general sense from a philosophical perspective or
153 from any procedure or operation capable of achieving any effect, being its field as extensive as that of all human
154 activities (Abbagnano, 1951), which continues with the approach of the following adjective attributed to the
155 administration, from the relative perspective, that of art.

156 Before addressing the notion of art, it is necessary to clarify the understanding of administration as a social
157 discipline, as long as it is conceived from a relative thought system, which admits the subjective or intersubjective
158 but has scientific criteria (Mendoza, 2018) because it has a set of systematically organized knowledge, which
159 derive on the classical principles of administration. Taylor's 4 and 14 fundamental principles are an example
160 of the application of the administrative process. In addition, it has a defined object of study, the organization.
161 Its theoretical and methodological foundations are raised in a series of theoretical postulates (administration
162 approaches), which are applicable to the general reality demonstrating to be reliable and likely to acquire a
163 unitary character over time (Mendoza, 2018).

164 To address the notion of administration as art, it is necessary to take Plato's postulates as a primary reference.
165 Plato establishes that art corresponds to all ordered human activity (including science) that exercises dominance
166 over knowledge, divided between judiciary art and dispositive or imperative art. The first consists simply in
167 knowing and the second one refers to directing based on knowledge of a certain activity. Regardless of the
168 consequent considerations that emerged around the notion of art, associated only with aesthetics (philosophy

169 of art and beauty) called or conceived as liberal, it is also relative to the intuitive, sensitive or creative. It
170 is possible to rescue the productive, mechanical, manual, or servile nature of the imperative art that over time
171 appears associated with the notion of technique, as a term with a broad meaning that designates all the normative
172 procedures that result from its work in any field (ibid.).

173 It is precisely from this intuitive or subjective perspective that the notion of administration as art emerges in
174 authors such as Drucker (1989), who proposed administration as a liberal art, which integrates knowledge with
175 practice and application. Mintzberg (2000). Plus, he considered it in the sense of the trade, due to the intuitive
176 judgment of the administrator. Therefore, this perception provides the administration with more to do with doing
177 and then thinking than with thinking and then doing. Meanwhile, Mendoza (2018), states that the administration
178 rescues the need to use creativity in solving problems that prevent the progress of the proposed strategies and
179 objectives. So, the character of art is also presented by selecting simple, harmonious, and integrating solutions.
180 The administration is conceived as an art and, it is characterized by having virtue, disposition, and personality
181 to build a favorable scenario in an organization with varied and complex attributes that can be considered due
182 to their nature as epistemic obstacles.

183 6 IV. Of the Epistemic Obstacles of Administration

184 There are a series of distinctive features of the administrative phenomenon that are considered to have acted
185 as epistemic obstacles. These are elements that are difficult to integrate or even address as a unit, especially
186 when learning about or apprehending the administrative phenomenon. Therefore, the complexity term appears
187 in the equation and it becomes the most suitable category to characterize the diversity or multiplicity of the
188 administrative discipline. As a complex phenomenon composed of various elements, it should be noted.

189 First, there is the diversity of its general object of study, the organization, due to its normative nature
190 (legal), as well as its field of action (goods or services); its orientation, either towards tasks (a division of work,
191 structure, operation, techniques or procedures, etc.) or towards relationships (with emphasis on psychological
192 and sociological aspects inherent to the workforce that makes up an organization).

193 Resulting in the presence of normativism in organizational functioning, which can be considered an unbreakable
194 principle. The foregoing in the sense of the prevalence or inclination towards compliance with the norm conceived
195 as a kind of instruction to follow or respect, which may not necessarily be consistent with the context of action,
196 taking into account not only the fact that the Legal frameworks, whatever their level within the Kelsen pyramid,
197 must be updated, but also due to the flexible or dynamic nature of the (human) elements that participate in the
198 administrative task.

199 Under this premise appears the subordination of the organization and the administrative processes to the
200 ideological is highlighted, based on the legitimization of domination and subordination as a form of exercise of
201 power in organizations, obedience that depends on the set of ideas that guides to the system of administrative
202 thought and base the action of the Another aspect to consider in this equation is the heterogeneity of theoretical
203 approaches of the discipline. Koontz presented it as an administrative "jungle", made up of schools of
204 administrative thought, raised throughout history becoming an attempt of researchers in the field for establishing
205 a consensus precisely on the object of study of the administration. This variety far from simplifying its object or
206 its study methods demonstrates its complexity.

207 However, it is necessary to point out that administration as an object of study is well documented in
208 Taylor's approaches regarding the planning of the method. Furthermore, Taylor states that to succeed the
209 principles of administration require that the participants of the organization work together for a common interest.
210 Taylor conceived it as the increase in productivity adding the principle of the complexity of the administrative
211 phenomenon. This perspective unravels and justifies the emergence of the humanist approach to administration.
212 Moreover, it is hence the perception of an administrative "jungle" spoken by Koontz. Besides, it establishes as
213 well the multiplicity of methodological possibilities to address the administrative phenomenon.

214 In this same order of ideas, it appears consideration how difficult is to approach the management activities of
215 the administration. To be more specific, the skills (creativity and negotiation) and values (morals) are required
216 by the administrative task (which I would classify as a managerial role). Borgucci (2012) distinguishes creativity
217 and, links it to negotiation as well as morality, which are characteristic or distinctive features of the administrator
218 or manager's style. They affect the decision-making process and involve risk, according to the spatial context.
219 Temporary of the organization, commitment that can be managed by taking into account postulates of the theory
220 of contingency, organizational development, or the theory of managerial effectiveness.

221 These aspects of the managerial role should lead to solving problems by adequately using the tools or strategies
222 according to the context they take place. From an ecological point of view, we talk about beneficiating all the
223 actors involved in the organization, directly or indirectly. It becomes then a challenge for those in the managerial
224 role in the administrative field, or the researcher to take this aspect as an object of study. Resulting in an obstacle
225 of an epistemic nature.

226 The methodological status of administrative principles can be also considered another epistemic obstacle. It
227 is understood as a set of socio-technical rules susceptible to periodic revision (and not as universal or general
228 laws as required by the scientific tradition), with practical and moral aspirations. Due to the complex nature of
229 the administrative phenomenon (conceived as a dynamic system), the administration's methods used must have
230 a flexible and diverse perspective.

231 In addition, it is relevant to emphasize the presence of empiricism within this list of epistemic obstacles.
232 Empiricism is conceived as the submission of the observer-researcher subject to organizational facts, in this case
233 from a perspective alien to criteria of scientific rigor, that is, the possibility of uncritical empiricism. However,
234 researchers in the field of administration have tried to advance toward its scientific nature, and authors such as Le
235 Moigne (1997), ??liksberg (1992), or ??unge (2000) give an account of this, without ignoring the methodological
236 possibilities offered by postpositivist, which address phenomena such as administration from the study of cases,
237 justified in the postulates, for example, of systems theory, holistic theory, or complex thought.

238 In this sense, the directing of causality in the formulation of laws or administrative principles stands out, with
239 a certain range of validity as long as they are conceived from specific contexts. Causality in its most general
240 meaning refers to the relationship between two things, under which the second (the effect, result, or impact) is
241 univocally foreseeable from the first (the administrative action). This is seen from a deterministic perspective
242 (typical of experimental studies with a quantitative approach), which is complemented by the statement of the
243 relationship between scientific knowledge and, administrative practice. It refers to the imperative need for what
244 is stated in the context of scientific research (the theoretical postulates or assumptions) to transcend the practical
245 (administrative work), by adopting the administration of the principles of science.

246 7 V. Final Thoughts: Administration as an Epistemic Frame- 247 work

248 It is necessary to start by making an approximation to the knowledge of the entities within which the activities of
249 human beings develop. Let's start with the affirmation that administrative phenomenon at the level of popular
250 knowledge as a human activity arises as to whether it is possible to study it scientifically.

251 Although there is not still epistemological consensus on the status of administration, the phenomenon or
252 administrative process depends on the paradigmatic approach of its interlocutor. It is also accompanied by
253 adjectives such as "science", "sociotechnics" or "art". Regardless of the epithet used, the organization is considered
254 the general object of administrative work. Plus, the exclusive object of study is the processes by which the
255 participants or coparticipants of an organization are led toward the achievement of its objectives or purposes.
256 Since the object of a discipline is the portion of reality that works, this is precisely the disciplinary object.
257 Currently, the administration is assumed as an independent discipline, of a practical and social nature, oriented
258 to the management of the resources of an organization to achieve its objectives. So, administrative functions are
259 exercised.

260 Characteristics of distinctive features of the administration previously understood as epistemic obstacles do not
261 allow it to appropriate the adjective science. So, it is clear that this does not imply that it cannot be considered
262 with the adjective scientific but within its canons. In addition, we cannot forget the modern postulates that
263 speak of the end of science, or better yet, the emergence of ready approaches to address study phenomena that
264 from the traditional perspective are not possible to consider in terms of validity and scientific reliability.

265 According to the above, we could assent to the consideration of the administration in terms of Bungian socio-
266 technical, as long as its daring conjunction as art and discipline with a scientific nature is recognized, an assertion
267 that could also become a research problem with all the rigor that this requires. This is how we conceive what
268 could be understood as an epistemology of administration in terms of a systemic framework in the sense that it
269 represents a system of ideas that give rise to knowledge and administrative theories from which specific methods
270 or strategies arise to investigate the administration. nature of the organizational reality, whose representation
271 allows to give an epistemic connotation that transcends its conception as a science, as a technique, or as an
272 art, but as a discipline in which the scientific, technical, sensitive, and intuitive criteria of the administration
273 converge. This is how, representing the administration from the fundamentals and approach of systems theory
274 is very accurate since it arose to explain the principles of the organization of many natural phenomena and is
275 currently applied to knowledge. of many other realities, both natural and social, etc.

276 Therefore, an organization applying the primitive principles of administration creates and forms this framework
277 of all the parts towards the whole and the whole towards the parts, managing to establish a relational synergy of
278 the entities of this great systemic environment seen from a holistic position, This allows us to have a perception
279 of the organization as a flexible open system that depends on changes in the environment and technology, thus
280 the evolution of the administration will depend on how it transcends the path of modernity and postmodernity
281 towards efficiency and effectiveness. of the proposed results of the organizations.

282 In this sense, the administrative and organizational as a living system is a description and abstract
283 representation of relationships that identify its components in autopoiesis, that is, a general pattern of
284 organization in its multiple dependencies that allow building its autonomy. The previously described evidence is
285 that in each case they raise precepts and methods that ultimately revolve around the same thing, to contribute
286 to the ultimate goal of the administration.

287 Due to the above, we conceive a new way of knowing, or of representing the epistemic status of the
288 administration, and therefore, of apprehending the discipline, which allows its admission as a science, art, and
289 technique, without exclusions, where the perspectives rational and relative, mentioned above, act as sub-systems
290 of an epistemic macro-system, in which the fibers are not arranged randomly, but woven according to a canvas,
291 of a synthetic unit, in which each part contributes to the set, from which you can perceive and know the features

7 V. FINAL THOUGHTS: ADMINISTRATION AS AN EPISTEMIC FRAMEWORK

292 or elements of the administrative phenomenon (it is theoretical, philosophical and methodological heterogeneity, considered as epistemic obstacles), but not simplify or fully apprehend due to its complex nature.



Figure 1:

293

-
- 294 [Stonner et al. ()] , J Stonner , E Freeman , D Gilbert . *Management* 1995. Prentice Hall Editions.
- 295 [Mendoza ()] *Administration epistemology: object, statute, disciplinary development and method. Thought and*
296 *Management Magazine of the*, J Mendoza . 2018. 45 p. . Universidad del Norte
- 297 [Barba (2013)] ‘Administration, organization theory and organizational studies’. A Barba . *Management and*
298 *Strategy* July-December, 2013. 44 (2) p. . (Three fields of knowledge. three identities [conference])
- 299 [Bunge ()] *Dictionary of Philosophy*, Mario Bunge . 2005. XXI Century Publishers. Mexico.
- 300 [Abbagnano ()] *Dictionary of Philosophy. Economic Culture Fund*, N Abbagnano . 1951. Mexico.
- 301 [Bunge (1986)] ‘Epistemological status of the administration’. M Bunge . *National Conference on Administration,*
302 *Faculty of Economic Sciences*, (Buenos Aires) 1986. October.
- 303 [Bunge ()] *Epistemology, science of science*, M Bunge . 1980. Ariel, Barcelona.
- 304 [Etzioni ()] A Etzioni . *Modern organizations*, (Mexico, UTEHA) 1979.
- 305 [Rivas ()] *Evolution of organization theory*, L A Rivas . 2009. 17 p. . Universality & Business, Universidad del
306 Rosario
- 307 [Bertalanffy ()] *General theory of the systems. Fund of Economic Culture*, L Bertalanffy . 1968. Mexico.
- 308 [Hurtado ()] *Holistic research methodology. Services and Projections for Latin America SYPAL*, J Hurtado .
309 2000.
- 310 [Fayol ()] *Industrial and General Administration*, Henry Fayol . 1997. Mexico: Herrera Hermanos.
- 311 [Chiavenato ()] *Introduction to the general theory of administration*, I Chiavenato . 2004. Mexico: McGraw Hill.
- 312 [Mintzberg ()] *Managing*, H Mintzberg . 2009. Bogota: Standard.
- 313 [Gary ()] *Organization and Administration*, D Gary . 1979. Prentice Hall.
- 314 [Taylor ()] *Principles of scientific management*, F Taylor . 1969. Mexico: Herrero Hnos. S.A.
- 315 [Borgucci ()] *Some epistemological problems of administrative sciences*, E Borgucci . 2012. Research Center for
316 Administrative and Management Sciences. Rafael Belloso Chancin University
- 317 [Koontz and Heinz ()] *The administration. A global perspective*, H Koontz , W Heinz . 1998. Mexico: McGraw
318 Hill.
- 319 [Drucker ()] *The new realities*, P Drucker . 1989. Bogota: Standard.
- 320 [Bordieu et al. ()] *The profession of sociologist*, P Bordieu , Chamboredon , J Passeron . 2008. Buenos Aires,
321 XXI century.
- 322 [Bunge ()] *The social sciences under discussion: a philosophical perspective*, M Bunge . 1999. Argentina: South
323 American Editorial.