# GUIDELINES FOR READING AND WRITING TEXTS IN THE HISTORY OF BEHAVIOR ANALYSIS

Renan Kois Guimarães<sup>1</sup>
Camila Muchon de Melo
Universidade Estadual de Londrina [State University of Londrina/Brazil]

ABSTRACT: This paper aims to present guidelines for reading and writing behavior-analytic historical texts. It was updated and adapted from the published material used by S. R. Coleman for the analysis of literature in the History of Psychology. In addition to the contextualization of Behavior Analysis as a psychological school, 11 thematic categories are presented, namely: *Biographical History, Conceptual History, Institutional History, History of Disciplines, History of Research Topics, History of Methods, History of Apparatus, History of Events, History of Social Processes, History of Texts, and History of Debates.* Thus, this guide seeks to assist those interested in History of Behavior Analysis by defining and delimiting different objects of study in this field. It can also encourage historiographical production by indicating new research problems, showing the absence of certain phenomena and/or the lack of historiographical studies on them. It also serves as a tool for readers of the History of Behavior Analysis in identifying the interrelationships between phenomena and the historical limits of a text.

Key words: Reading Guide, Guidelines, Historiography, History of Behavior Analysis

Besides contemplating the historical narratives produced about a given episode, Historiography is also a discipline that seeks to discuss axiological, epistemological, ontological, and methodological questions about the changes of a phenomenon over time (Ferrater Mora, 1994/2004; Morris et al., 1995). In the scientific context, Historiography can describe the evolution of an area of knowledge, the transformation of concepts, the trajectory of particular individuals, the establishment of a theory, etc. It not only reports the past, but also proposes reflections on how to construct these narratives, collection methods, and assumptions for the interpretation of an event (Brožek & Massimi, 2001; Martins, 2004).

Historiographical discussions in Psychology gained strength mainly after the publication of *The new history of Psychology* by Furumoto (1989), a text in which the author addresses the nature of historical sources (i.e., primary and secondary); the notion of evolution of history (i.e., prig and whig); the temporal reference adopted by the historian (i.e., historicism and presentism); the source of historical change (i.e., Zeitgeist and Great Men); and the focus of historical phenomenon interpretation (i.e., externalism and internalism). These various historiographical aspects are still used as parameters in debates in Historiography of Psychology to this day (cf. Araujo, 2016; Brock, 2017; Campos, 1980/1998; Coleman et al., 1993; Cruz, 2006; Goodwin, 2005; Hothersall & Lovett, 2022; Lovett, 2006, Morris et al., 1990, 1995, 2022a; Watrin, 2017; Wertheimer, 1980/1998; Woodward, 1980).

In addition to these debates, the writing of Psychology's history has also been affected by the advent of technology since the storage capacity and access to historical traces have considerably increased compared to past centuries. Due to this this evolution, the possibility of a quantitative historical analysis has expanded (Le Goff, 1990/1996). Called by some authors historiometry, this

<sup>&</sup>lt;sup>1</sup> Address correspondence to renankois@gmail.com.

<sup>&</sup>quot;This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES) – Finance Code 001."

approach seeks to measure, especially by means of quantitative criteria, the changes of the phenomenon over time by grouping information, for example, about the quantity of publications on a given subject; text or author characteristics; dates; references; institutions, etc. (Simonton, 1998, 1999).

An example is the collection of texts published by Coleman (1991) and Coleman et al. (1992a, 1992b, 1993, 1994), which analyzed the History of Psychology literature by criteria such as the number of pages devoted to an author (e.g., Freud, Skinner, Piaget) as well as demographic and social characteristics (e.g., place of publication, language, gender). Among the different parameters used for the analysis of the psychology historiographic literature, Coleman et al. (1993, 1994) put forward a categorization of historiographic works divided into 14 themes (e.g., Conceptual History, Institutional History, Movement, Person-Oriented Article, School of Psychology).

These categories are presented by Coleman et al. (1993, 1994) to establish a framework of the literature on the History of Psychology, allowing a better understanding of how these different themes are related. Furthermore, a quantitative analysis based on categories can help a scientific community understand which themes are incipient in historical studies and can also be an indicator of the absence or low quantity of these objects of study (e.g., the low number of associations, journals, universities, etc. would promote a low number of publications on *Institutional History*).

It is important to emphasize that the absence of specific texts about a certain theme does not necessarily imply that the corresponding phenomenon does not occur, given that the occurrence of historical studies may be more related to the interests of historians than to the occurrence of the object of investigation itself. However, even though it is a correlation that must be carefully analyzed, the division into thematic categories indicates, at least, the lack of historical texts about a theme, opening room for investigation on the occurrence of the phenomena.

An overview of the historiographical literature can still serve as a basis for analyses that interrelate other criteria (e.g., discussions about the source of historical change; the focus of interpretation of the historical phenomenon). Coleman et al. (1993) expose the tendency for some themes to be approached in specific ways. For example, *Conceptual Histories* tend to lend themselves to an internalist interpretation, while *Histories of Social Processes* are more often written from an externalist perspective.

Considering that analyses of these interrelations proposed by Coleman et al. (1993, 1994) were developed in a different era and for a broad context of Psychology, an update and contextualization of this proposition to more specific areas of psychological knowledge seems important. Thus, the conceptualization of recurrent themes in the History of Psychology seems to be of fundamental importance. This definition could support, for instance, research that investigates which themes are more often present; whether the *Biographical History* and *History of Social Processes* are explained through the *Zeitgeist*, or a Great Men bias prevails.

In light of the psychological historiographical debate, which traditionally is guided by the questions proposed by Furumoto (1989), this text will present a possibility of complementary analysis to the criteria already debated by historiographers (i.e., presentism, internalism, sources). This proposition is not exclusive, discordant, or better, but rather complementary to the debate established in the field.

Moreover, as a guide that defines and delimits thematic categories present in historical narratives, the conceptualizations presented in this manuscript can contribute to the identification of recurrent and relevant phenomena in a given area. More specifically, this paper will contextualize these categories to Behavior Analysis.

Considering that phenomena may vary among different Schools of Psychology (e.g., the research topics covered, the main scientific figures, the Universities), thematic categories may be better understood if related to a particular School. Moreover, a more specific categorization may help towards a better understanding of the psychological School itself than a general categorization.

Thus, this paper aims to present guidelines for reading and writing behavior-analytic historical texts, which could be used as a basis for analyzing texts as well as a guide for new research problems, and could also provide support to new readers of the History of Behavior Analysis in identifying the interrelationships between phenomena, the historical limits of a text, etc. It is worth mentioning that the guide to be presented is an adaptation of the Guide<sup>2</sup> formulated by S. R. Coleman for the literature analysis of the History of Psychology. In the present study, the adaptation will be mainly through the transformation of the examples used by Coleman, the reduction of the scope, and the contextualization of the categories to Behavior Analysis.

## **Contextualizing the Reading Guide**

Stephen Coleman, Philip Cola, and Sandra Webster have analyzed different topics in the History of Psychology using a Reading Guide (Coleman et al., 1993, 1994). However, despite being mentioned, this Guide has not been fully published yet (cf. Coleman et al., 1993, 1994). In the first article, the authors say that "In reading a publication, the reader [Coleman, Cola, and Webster] used a 10-page guide containing criteria for judgments and definitions of the categories that were to be employed" (Coleman et al., 1993, p. 255), and they further explain that these categories were "biographical, institutional, disciplinary, history of a psychological school, history of ideas, etc." (p. 256).

In the second text, the authors say that "the three readers [authors of the text] used a nine-page guide containing criteria for judgments and definitions of the 14 subject-matter categories that were to be employed" (Coleman et al., 1994, p. 692). Although these nine pages were not made available in full, the authors briefly describe such categories:

The 14 categories in alphabetic order were an apparatus or other physical device, including a mental test; biographical treatment of a specific person (or group of persons), presented not as a hero whose works are of primary interest but rather in a person-oriented narrative that focused on the individual's character or development; a concept; a full-fledged discipline such as experimental psychology, or only a research specialty such as the psychology of reading; an event such as the founding of the Leipzig laboratory, including relationships such as that of Freud and Jung; an institution such as the American Psychological Association (APA), a department, university, or laboratory; a problem or issue such as the mind-body problem; a social or intellectual movement such as the child-study movement; a quality such as the rated eminence of notable psychologists; a publication, usually printed matter such as a book, an article, a journal (unless the journal were treated instead as a social institution), or even a commercial film (e.g., Lück, 1985) or manuscript; a school of psychology, of psychiatry, or of another discipline; a technique or methodology such as introspection, analysis of variance, or psychoanalytic procedure; and a theory or hypothesis. (pp. 692-693)

Although this description gives us good clues as to how these categories were defined, many shades of each theme were not covered in this characterization. Thus, seeking to broaden the understanding about these categories proposed by Coleman et al. (1993, 1994), Professor Coleman was contacted via e-mail and promptly provided a copy of the original Guide.

Reasserting the argument that Historiography is beyond the writing of history, also contemplating the reflection about its own doing, we would like to emphasize the importance of access to this material, which enabled, even if updated and adapted, its disclosure. Considering that it was used as a reference for the analyses by Coleman et al. (1993, 1994), we understand that this reading guide can also provide help to other researchers.

<sup>&</sup>lt;sup>2</sup> To minimize possible confusion, the original material used by Coleman et al., (1993, 1994) will be named *Guide*, marked with a capital letter. Thus, the adaptation presented in this manuscript will be written in lower case, that is, *reading guide*.

Given that the aim of the collection published by Coleman et al. was to analyze the literature on the History of Psychology as a whole, some adaptations were made to more accurately cover contemporary Behavior Analysis, and the changes made are described in this manuscript. Some categories were renamed, for example, Social and Intellectual Movement to *History of Social Processes*; Book, Journal, and Article to *History of Texts*. Other themes have been relocated as subtopics of larger themes, e.g., Quality/Characteristic<sup>3</sup> to *Biographical History* or *History of Social Processes*. The category School of Psychology was excluded, based on the scope of this manuscript and the understanding that the other themes deal precisely with the history of a specific School, in this case, Behavior Analysis. Finally, some categories were also expanded, comprising new subtopics, for instance, *Institutional History*.

Therefore, this guide will present 11 thematic categories, these being: Biographical History; Conceptual History; Institutional History; History of Disciplines; History of Research Topics; History of Methods; History of Apparatus; History of Events; History of Social Processes; History of Texts; and History of Debates. Considering that a category is a text cutout, some of these categories may have intersections with others, allowing the classification of the same text in different ways (e.g., History of Research Topics and History of Disciplines; Conceptual History and History of Research Topics; History of Events and Institutional History).

Thus, even if a text can narrate all the categories defined in this manuscript, Coleman et al. (1993, 1994) suggest that a hierarchization can be performed for sorting these categories. According to the authors, the themes addressed in the texts can be classified according to their relevance to the manuscript, the most explored theme by the analyzed material can be defined as primary; and the less explored themes as secondary, tertiary, and so on<sup>4</sup>.

Although the description of strict criteria for a theme's definition as primary, secondary, and tertiary is hard work, some indications of the theme's focus in the text can be raised, such as the presence of a word related to a topic in the title, keywords, abstract, in the body of the text, or in the title of a topic. As a rule, when a theme is presented in the title, in the keywords, in the abstract, or in the topic title of the text, respectively, this subject tends to be explored more comprehensively than when it appears only in the body of the text. However, other criteria may be adopted, such as the number of pages, lines, or words related to a specific theme (Coleman, 1991; Zusne, 1985; Zusne & Dailey, 1982).

#### **Behavior Analysis as a School of Psychology**

In Coleman's Guide, the most widely presented topic was School of Psychology. However, for the purposes of this manuscript, the History of Schools of Psychology will not be conceived as a corresponding category to *Biographical History*, *History of Disciplines*, *Institutional History*, etc., since all the categories presented narrate, to some degree, the History of Behavior Analysis. Thus, this topic will contextualize Behavior Analysis as a School of Psychology.

Behavior Analysis is defined as a School of Psychology<sup>5</sup> because it includes several concepts (e.g., reinforcement, control, behavior), different research topics (e.g., PSI, resistance to change, cultural-behavioral sciences), and methods (e.g., single-subject design). Additionally, the School of Psychology is not restricted to a single author (e.g., B. F. Skinner), implying a scientific verbal

<sup>&</sup>lt;sup>3</sup> In the original Guide, Coleman defines a *characteristic* or a *quality* as "a property of a group or person, particularly if measurable."

<sup>&</sup>lt;sup>4</sup> It is important to emphasize that this division between primary, secondary, etc. does not refer to the same problems explored by Historiography in relation to historical sources (i.e., primary sources, secondary sources). <sup>5</sup> In the original Guide, Coleman titled a subcategory of a School of Psychology as Radical Behaviorism rather than Behavior Analysis. However, Radical Behaviorism is understood as the philosophy of the science named Behavior Analysis (Skinner, 1974), and this science is a School of Psychology.

community committed to the aforementioned research topics, procedures, methods, and concepts (Cruz, 2013, 2019).

According to Tourinho (2006), Behavior Analysis constitutes a subarea of knowledge of psychology, in the sense that it constitutes a reference around which efforts of a community of researchers are organized to produce knowledge, edit specialized publications, and promote events for new knowledge communication and diffusion. "Behavior Analysis" therefore constitutes a reference for the identity of community of researchers who function as interlocutors for one another.

Coleman points out in his Guide that what defines a School of Psychology is precisely the participation of various individuals in the constitution and fostering of that School. Thus, in addition to the complexity among the conceptual network, a psychological School is also defined by its social character. To argue that a School is composed of a scientific community implies that such community shares not only concepts, techniques, research methods, but also defends certain philosophical, ethical, and political commitments.

In the case of Behavior Analysis, the scientific community establishes models and rules of how to do this science<sup>6</sup> (e.g., Skinner, 1956). It is unlikely, for example, that the behavior analysis community would accept an article advocating metaphysical mentalism as a philosophical assumption of Behavior Analysis. These rules established by a verbal community control the behavior of the researcher, the student, the professional etc., who is part of that School of Psychology.

In addition, a School of Psychology also has an institutional character. The behavior-analytic community has, for instance, specialized journals in the field (e.g., Behavior and Social Issues; Journal of Applied Behavior Analysis; Journal of Experimental Analysis of Behavior; Perspectives on Behavior Science); behavior-analytic associations/societies (e.g., Association for Behavior Analysis International; UK Society for Behaviour Analysis; Society for the Experimental Analysis of Behavior); graduate programs in Behavior Analysis (e.g., Mr. Cloud State University's Applied Behavior Analysis Program; Simmons University's Master's in Behavior Analysis Program). Thus, this social configuration of Behavior Analysis seems to allow classifying it as a psychological School, to the extent that there are scientific community(ies) that seek to promote teaching and research in this area, although the very demarcation of what Behavior Analysis is a far from settled issue (cf. Zilio, 2019).

In this way, the History of Behavior Analysis can be narrated by historically examining concepts, research topics, methods, institutions, people etc. These narratives can be presented in a more general way, addressing Behavior Analysis as a whole (e.g., Goodall, 1972; Skinner, 1980; Todorov & Hanna, 2010), but they can also describe the historical influences of a psychological School (e.g., Day, 1998; Michael, 2004; Burnham, 1968).

## **Thematic Categories**

In view of the contextualization of Behavior Analysis as a School of Psychology, the categories adapted from Coleman's Guide will be presented below.

#### Biographical History

As defined by the dictionary, *biography* means: "description or life story of a person" (Ferreira, 2010, p. 317). In this sense, a text that narrates a *Biographical History* tells us characteristics or qualities of a person, as well as events, specific situations, or journeys in his or her life. This account about an individual can be produced by the person themselves, characterizing it as an autobiography (e.g., Skinner, 1967, 1976, 1979, 1983), it can narrate the informal life of a scientist (e.g., Bjork, 1997), but also the academic daily life, relationships with students and other colleagues, etc. (e.g., Cruz, 2019).

<sup>&</sup>lt;sup>6</sup> The process of building a scientific community and elaborating rules, sometimes more formalized (e.g., rules for submission to a journal), can be seen in more details in Cruz (2016, 2019).

According to the Guide, texts that relate a *Biographical History* can be identified by highlighting the name of the person to be studied, usually in the title or abstract (e.g., Fowler, 1990; Malott, 2022; Moore, 2005a, 2005b, 2005c; Ribes-Iñesta, 2022; Morris, 2015). These texts are sometimes published in isolation in a journal (e.g., Assis et al., 2005; Hunziker, 2015; Keller, 1981; Smith & Morris, 2004); but a large number of texts on biographical narratives are published together, as in a call for publication on the death of an important member of a scientific community (e.g., Murray Sidman: *Journal of Experimental Analysis of Behavior*, 2021, v.115, n.1; Carolina Bori: *Psicologia USP*, 1998, v.9, n.1; João Cláudio Todorov: *Brazilian Journal of Behavior Analysis*, 2022, v.18, n.1).

Moreover, besides publications in journals, other forms of biographical narrative are possible, as in book format. In this sense, some biographies may adopt a more literary and fictional approach (Gilbert, 2016; Hartley, 1991), while others may take on an academic character (e.g., Bjork, 1997; Cruz, 2019; Richelle, 1993/2016; Smith & Woodward, 1996). In addition, obituaries, news pieces, and tributes are sources that present in fine relation to the concept of Memory (Le Goff, 1990/1996). In this manuscript, memorial texts about a member of Behavior Analysis are treated as *Biographical History*.

## Conceptual History

A first discussion regarding this category should be raised concerning the very term that accompanies the word *History* in the title. The original Guide presents two names for this category: Conceptual History and History of an idea. However, both terms refer to historiographical movements that are distinct and critical of each other (cf. Barros, 2007; Gomes, 2014; Richter, 1987). In this context, the choice of the term used to name the category is justified by the lexicon of the behavior-analytic verbal community itself, and not by affinities with one or another historiographical movement and its specific methods (e.g., the submission guidelines of journals such as *Behavior and Social Issues* or *Perspectives on Behavior Science* that publish conceptual analysis/studies). In addition, efforts to systematize conceptual research methods have already been undertaken by the behavior analytic community (e.g., Laurenti et al., 2016; Tourinho, 1999).

Laurenti and Lopes (2016) described four levels of analysis that can be used in concept research and analysis. A first way to analyze a *concept* could be the (i) *semantic level*, seeking to elicit the meaning(s), or usage rules, of a concept in relation to a specific context (e.g., what is the Skinnerian definition of behavior in the 1938 work?). A second way of analysis is the (ii) *systemic level*, which consists of demonstrating how a concept is related to other concepts, theories, etc. (e.g., how is the concept of counter-control related to concepts such as control, punishment, escape, and avoidance?) A third way to analyze a concept is the (iii) *philosophical level*, which seeks to establish relationships between a concept and categories of Philosophy, such as philosophical, epistemological, ethical, and political commitments (e.g., which Skinnerian ethics has more affinity with which ethical theory?).

Finally, a fourth way to analyze a concept is the (iv) historical level. This analysis comes from the understanding that a concept must be contextualized to a time and a culture. A historical-conceptual analysis seeks to narrate the evolution of a concept over time (Laurenti & Lopes, 2016). To construct a historical narrative about a concept, the researcher "asks contextual questions and seeks answers in the intellectual and cultural history of the text" (Abib, 2005, p. 54). In other words, the historian may look for intellectual aspects (e.g., logical, argumentative etc.) that influenced the development of a concept (e.g., Coleman, 1981; Iversen, 1992; Micheletto, 1995; Moore, 1985; Santos, 2017; Schneider & Morris, 1987; Skinner 1938; Zuriff, 1985), but may also look for explanations in a social context that affected that concept (e.g., Cruz, 2010; Rutherford, 2003, 2009).

In this way, historical-conceptual research will be perceived both as a conceptual research level of analysis and as a type of historical research. It is worth noting that historical-conceptual research, like all types of history, has as its starting point the temporal understanding of the phenomenon, in this case, the concept. Thus, the main distinction between historical-conceptual research and other levels of analysis is the need to contextualize the concept in a specific historical period. Beyond mere

chronological mention, it is fundamental that this historical contextualization addresses, for instance, how social, economic, political, ethical conjunctures; philosophical, personal influences etc., related to a concept.

# Institutional History

Following the definition of Coleman's Guide, an *Institutional History* narrates events related to an institution. In Behavior Analysis, the concept of *institution* seems to have some overlap with the concept of controlling agency (cf. Skinner, 1953)<sup>7</sup>. Defining controlling agencies, Souza (2018) states that "controlling agencies, or institutions, are generally more organized subdivisions of the group that better control people's behavior by manipulating variables such as money, military force, prizes or rewards, and supernatural threats" (p. 34).

In that sense, an *Institutional History* will narrate the formation, transformation, disappearance etc., of a specific behavior-analytic group. Not any groups, but those that present a high organization and formalization. Thus, this type of history brings organizational aspects in its narrative, such as the position appointment (e.g., president, head of department, treasurer, coordinator etc.), consequently some form of hierarchization.

Some examples of institutions are: (i) Universities (e.g., Columbia University; Harvard University; University of Brasilia; University of Kansas; University of Sao Paulo); (ii) Departments/Programs (e.g., Department of Applied Behavioral Science of University of Kansas; Department of Behavior Analysis of Simmons University; Department of Behavior Analysis of University of North Texas; Department of Experimental Psychology of University of Sao Paulo); (iii) Institutes (e.g., Global Institute for Behavior Analysis; ABA Institute Inc.); (iv) Associations/Societies/Divisions (e.g., APA Division 25; Association for Behavior Analysis International; European Association for Behaviour Analysis; Society for the Experimental Analysis of Behavior); (v) Journals (e.g., Behavior and Social Issues; Journal of Applied Behavior Analysis; Journal of the Experimental Analysis of Behavior; Perspectives on Behavior Science; The Analysis of Verbal Behavior).

Institutional Histories can narrate the importance of an institution as a context for conducting events, research, teaching, etc. (e.g., Guedes et al., 2008); historically contextualize the institutionalization of a University, association, journals, department, etc. (e.g., Baer, 1993; Cândido, 2017b; Laties, 1987; Lovitt, 1993; Michael, 1993; Morris et al., 2001; Hawkins et al., 1993); describe the changes that have occurred in the hierarchical structures of an institution, the modifications of a journal's publication guidelines etc. (e.g., Kerbauy, 2001; Morris et al., 2001); and can also sketch overviews about a journal's publication history (e.g., Laties, 2013; Keiner et al., 2020; Williams & Buskist, 1983).

## History of Disciplines

To define what a *discipline* is, it is necessary to establish which approach will be used. For example, Behavior Analysis can be considered a Psychology discipline. However, understanding Behavior Analysis as a School of Psychology, a discipline will be smaller than the field as a whole. In that sense, Behavior Analysis as a psychological School is composed of different disciplines (e.g., Applied Behavior Analysis; Experimental Analysis of Behavior; Behavioral Clinics; Radical Behaviorism; Educational Behavior Analysis etc.).

In attempting to define a discipline, Coleman's Guide presents the example of Behavior Analysis as a discipline of the Radical Behaviorism School of Psychology. However, as explored in the topic of

<sup>7</sup> Although the differentiation of these concepts is beyond the scope of this manuscript, one of the possible ways to differentiate them can be done in the focus on the controlling practices exercised by an agency (i.e., government, religion, economy, education, and psychotherapy), while the institution presents a materiality (e.g., Brazilian State, Catholic Church, New York Stock Exchange, Harvard University, ABA Institute).

contextualizing Behavior Analysis as a School of Psychology, this manuscript will understand Behavior Analysis as a psychological School and Radical Behaviorism as the part that presents the philosophical commitments of that School; this modification makes it possible to understand Radical Behaviorism as a discipline of Behavior Analysis.

A discipline is less organized, and linked to fewer institutions, than a School of Psychology which, in turn, is composed of different disciplines and linked to several institutions. Yet, a discipline has a degree of organization and formalization that is delineated, for example, by the presence of academic disciplines; journals that publish research related to the discipline; congresses that address the discipline's theme etc. In that sense, this organizational character of a discipline leads to overlapping between categories, in this case, with *Institutional History*. Nevertheless, a discipline is not reduced to an institution.

A behavior-analytic example can be thought of in relation to the Experimental Analysis of Behavior, which has a specialized journal (e.g., *Journal of Experimental Analysis of Behavior*) and disciplines with this name in several Psychology courses, as can be seen in the narrative presented by Cirino et al. (2010). One can also mention Radical Behaviorism as a discipline, represented by journals such as *Behavior and Philosophy* or *The Behavior Analyst/Perspectives on Behavior Science*. In addition, other disciplines can be mentioned, e.g., Behavior Therapy which has been addressed historically by different authors (e.g., Leonardi & Cândido, 2022; Morris, 2022b; O'Donohue et al., 2001) or Applied Behavior Analysis (e.g., Johnston et al., 2017; Lovitt, 1993; Morris & Peterson, 2022).

Some other examples explored in the Guide seem to bring Coleman's definition closer to the conception of discipline presented here: Experimental Psychology, Psychoacoustics, Psychopharmacology etc. These examples seem to converge with the understanding that a discipline has an academic character and institutional ties.

Finally, a note must be made regarding the use of the term *History of Disciplines* rather than *Disciplinary History*. Two justifications for this change can be raised: first, the term *disciplinary* is philosophically loaded, implying commitments that are beyond the scope of this manuscript (cf. Foucault, 1975, 1978/2012; Oliveira & Heuser, 2017; Pogrebinschi, 2004); and second, the term is also commonly understood as a synonym for teaching, usually associated with rigid and aversive control.

In that sense, if we analyze all the categories presented in this manuscript, the function of these different topics addressed in History of Behavior Analysis, at some level, is precisely to teach the members of a scientific community the main concepts, institutions, disciplines, people, methods etc., that constitute the field (Kuhn, 1962). Ultimately, all the topics described by this manuscript would have some *disciplinary function*, in the sense of teaching and training the new community members about its past, the rules followed by the community, the main representatives, how concepts should be used, with which areas boundaries were established etc.

Thus, the use of *History of Disciplines* is justified as a text should be categorized in this way when it historically contextualizes a discipline or narrates its evolution over time (e.g., O'Donohue et al., 2001). In other words, the focus is not on the function of the historic text (i.e., teaching), but on its content (i.e., what it is being taught about).

## History of Research Topics

In the Guide, Coleman makes explicit the proximity between the category *History of Disciplines* and the *History of Research Topics*. According to the differentiation proposed by the author, a *research topic* is less comprehensive than a discipline. However, we may question in what sense this breadth is being understood, since the theme investigated by a research topic may be covered by more than one discipline, as well as being an interface theme between different sciences. Thus, we understand it would be more pertinent to state a research topic is less *institutionalized*.

Defining this category, a research topic is committed to a particular phenomenon, which is delimited by the theme the topic proposes to study. Coleman, in the Guide, seems to establish an empirical character to the research topic, seeking to distinguish the *History of Research Topics* from *Conceptual History*. However, understanding there exist theoretical research topics, this manuscript will not reduce this type of history to empirical investigations only, understanding that a research topic is characterized by its object of study and not by the nature of the research conducted (i.e., theoretical, empirical, basic, or applied).

Not only for the object of study, the *History of Research Topics* explores the relations of a specific object of study, often synthesized into a concept, with people who have studied that phenomenon, with institutions that have fostered studies on the topic etc., always presenting the temporal aspects of these relations. It is worth emphasizing that a research topic is often linked to a specific author (e.g., Jack Michael and establishing operations; Murray Sidman and stimulus equivalence; Howard Rachlin and self-control; Sigrid Glenn and metacontingency). However, the participation of other authors seems to be exactly one of the criteria for defining what is a research topic.

Although there is an overlap between this and other categories, the *History of Research Topics* narrates the different interrelations established over time to investigate a specific object of study. Thus, texts that deal solely and exclusively with the modifications of a concept, for example, should be classified as *Conceptual History*, but if this history narrates how interrelated research on a theme developed, this text can be classified as *History of Research Topics*. Thus, this type of history has a central theme; research that establishes relations with each other, arguing, contradicting, corroborating; and it can be approached by different methodological natures (e.g., empirically, theoretically; with a more applied focus, a more basic focus etc.).

In this sense, the *History of Behavior-Analytic Research Topics* could narrate the historical context of emergence and development, for example, of stimulus equivalence; aversive control; verbal behavior; rule-governed behavior; resistance to change; culturo-behavioral studies; behavior modification; autism spectrum disorder<sup>8</sup> research etc. (e.g., Kazdin, 1978; Larsson, 2013; Sidman, 1994; Vaughan, 1989).

It is worth pointing out that a research topic may evolve over time, either becoming extinct due to lack of new research, or organizing itself and becoming a *discipline* or even giving rise to new research topics. An example is *Personalized System of Instruction* (PSI), that currently, in Brazil, is more properly titled *Programming of Conditions for Behavior Development* (PCDC) and can be understood as an evolution of PSI (cf. Kienen et al., 2013; Matos, 1998).

Thus, a research topic should be understood as a dynamic phenomenon, which can strengthen over time with the participation of more members of a community, increasing interest in such an object of study, as in PSI (e.g., Akera, 2017; Cândido, 2017a; Kienen et al., 2013; Kienen et al., 2021; Matos, 1998); but it can also be forgotten over time for various reasons, such as issues of efficiency, ethics, politics etc. (e.g., *Project Pigeon, Behavior Modification*).

Thus, it is essential to emphasize that the analysis of a narrative as the *History of Research Topics* must be performed contextually, taking into account how organized a research topic was in a given period of time. This can be done through bibliographic research that seeks to find out the number of publications about a phenomenon in a specific period of time; the beginning, continuity, or extinction of research on a particular topic etc.

<sup>&</sup>lt;sup>8</sup> In the case of ASD, for instance, historical texts about this phenomenon will certainly have an overlap with the *History of Disciplines* (i.e., Applied Behavior Analysis).

## History of Methods

In specialized literature, *method* is understood as "the path taken" to obtain a certain result (Ferrater Mora, 1994/2004). In that sense, the product obtained at the end of this path is not the result of luck, but of the contingency control performed by the researcher. Thus, the method can be composed of procedures, subjects, instruments, nature of the sources etc. Although the instruments are part of the method, these objects will be discussed specifically within the *History of Apparatus*.

In the scientific context, texts usually present the method in a specific section, and many authors also discuss the reasons for adopting one path or another. Although there is methodological diversity (cf. Ferrater Mora, 1994/2004, pp. 1962-1965), "what is accepted to be called scientific method is the critical way of producing scientific knowledge" (Kochë, 2011, p. 35).

With this definition, the *History of Methods* will present how a method evolved over time. To this end, the *History of Methods* narrates the strategy development adopted by researchers, the variable manipulation order, the treatment way and choice of research subject(s), debates about the functionality of an experimental control, procedures with specific subjects (e.g., bees), the transformation in the way sources are classified and analyzed etc.

A *History of Methods* can focus on various types of method (e.g., inductive, hypothetico-deductive, experimental method; single subject or group delineation; text interpretation procedures; behavior decomposition procedure). In this context, this type of narrative presents how discussions about the nature of sources, participants, procedures, etc. have developed over time in a science (e.g., Cirino, 2010; Dixon et al., 2012; Gotti et al., 2021; Skinner, 1956).

# History of Apparatus

Following the definition in Coleman's Guide, *apparatus* will be understood as psychological instruments, tools, and tests (i.e., objects). According to the author, the main characteristic of an apparatus is that it is a physical instrument, differentiating it from method (e.g., statistical analyses, experimental, interpretation and categorization procedures etc.).

The *History of Behavior-Analytic Apparatus* can make explicit historical contingencies present in the construction of a tool, such as Skinner's box (e.g., Coleman, 1996), the teaching machine (e.g., Benjamin, 1988; Watters, 2023), the Air Crib/Baby Tender (e.g., Rutherford, 2003), the cumulative recorders (e.g., Asano & Lattal, 2008; Lattal, 2004). It can also, among other things, explore social conditions that led to the adaptation of an apparatus, such as a pigeon cage adapted as Skinner's Box (e.g., Fernandes, 2015; Gotti et al., 2021; Kerbauy, 1996; Matos, 1998; Todorov & Hanna, 2010).

### History of Events

Historical research that examines particular events delimited in time can be classified as *History of Events*. In counterpoint to the *event* is the *process*, whose character is changeable, of a phenomenon in continuity, in becoming (Ferrater Mora, 1994/2004). The categorization of an event then passes through the possibility of a well-established temporal delineation. In this regard, an event can be contextualized in time, having a start and end date. Thus, even a course lasting a year, for example, can be understood in this category.

Some examples of *events* are meetings, conferences, symposia, etc. (e.g., Culturo-Behavior Science for a better World; 2nd Conference of the European Association for Behaviour Analysis; 30th Annual Convention of *Association for Behavior Analysis International*; the 2018 meeting of the *Association for Behavior Analysis International*), whether they are analyzed individually or as a series of events (e.g., history of annual Convention of ABAI). The *History of Events* can also contemplate courses taught in isolation, for example, the "History of Psychology" or "Comparative and Animal Psychology" taught by Keller at the University of Sao Paulo/Brazil in 1961 (e.g., Matos, 1998); or the professional regulation in a given country (e.g., Gotti et al., 2021).

### History of Social Processes

When defining the category, the Guide presents the term "movement." However, we understand that this word could lead the reader to misunderstand this category as "social movement." Given that the term is loaded with meaning (cf. Montaño & Doriguetto, 2017; Nunes, 2014), usually associated with confrontational movements composed of social minorities, such as feminism, racial struggles, the LGBTQIA+ movement, etc., the title of this category was changed to *social processes*. Even though social movements are contemplated in this category, we argue that a social process is broader than social movement understood in this way.

Justifying this change, the category denominated as *History of Social Processes* makes explicit both the *processual* nature of the phenomenon and indicates its *social* specificity. In this sense, unlike the event, a social process usually cannot be precisely delimited in time. Having a mutable character, this process may have gained or lost strength over time, as well as become extinct. Moreover, the social characteristic of this category has the function of making explicit the relations between social phenomena external to science and Behavior Analysis. Thus, we chose to use the term process instead of movement. Some examples of these processes are the psychiatric reforms; the military dictatorship and subsequent redemocratization process; the wars; the counterculture movement; the National Alcohol Prohibition in the United States; the struggles of social minorities, etc.

Histories of this type can narrate, for example, how the process of Brazilian military dictatorship directly interfered with the organizational structure of Behavior Analysis (e.g., Guedes et al., 2008). It can also cover issues closely linked to other topics. For example, a *History of Social Processes* that examines the debates about speciesism and animal rights is directly related to the *History of Disciplines* and the *History of Methods* (e.g., Cirino et al., 2010; Gotti et al., 2021). This category can also historically address the participation of a minority group in Behavior Analysis (e.g., Keller, 1998; Ruiz, 1995; Simon et al., 2007), the ways in which a specific population has been treated throughout history (e.g., Morris et al., 2021), and the presence of social debates in the literature of the field over time (e.g., Silva et al., 2022).

## History of Texts

In the original Guide, this category is called "Book or Periodical or Article." A modification was made in this theme, opting for the term *text* instead of the expressions presented in the Guide. This option sought to emphasize the type of material that will be analyzed: the written material. In this way, text contemplates both books and articles contained in the original title. However, this manuscript understands that the history of a journal should be categorized as a type of *Institutional History* (e.g., Catania, 2008; Laties, 2013; Martins, 2016), because, as already mentioned, a scientific journal presents organization, hierarchization, etc., that places it as a type of institution.

Furthermore, as pointed out in the Guide, this type of history does not only analyze published materials (e.g., books, articles etc.), but also unpublished manuscripts (e.g., letters, notes). Thus, the term text encompasses a wide range of written materials.

This type of history aims to narrate the impact of a text on an area of knowledge, either by contextualizing that effect in its own time; showing the impacts over time to the present day; analyzing the historical context of a book's production and reception; narrating the historical influences of the text; contextualizing the work on commemorative dates etc. (e.g., Catania, 2003; Cruz, 2010; Knapp, 1986; Morris, 2013; Pilgrim, 2003; Rutherford, 2000, 2003).

To exemplify, a text whose focus is the historical analysis of the concept of *freedom* (Skinner, 1971) should be classified as a *Conceptual History*. To be understood as *History of Texts*, this material should explore, for example, how the publication of Skinner's *Beyond Freedom and Dignity* (1971) reverberated in the behavior-analytic community, what were the social influences in the making of this work, the impact of the work in society etc. (e.g., Cruz, 2010; Rutherford, 2000, 2003).

# History of Debates

A *debate* is characterized by a discussion with different positions on a given topic. Coleman argues in the Guide that it is precisely this disagreement between the positions that characterizes a debate. Incompatibility between views about the same phenomenon can occur in different fields: philosophical issues (e.g., determinism *versus* indeterminism<sup>9</sup>; innatism *versus* environmentalism); methodological issues (e.g., inductivism *versus* deductivism; single subject *versus* group design); and positions about a concept (e.g., symmetry *versus* asymmetry of punishment in relation to reinforcement).

Special issues in journals with the aim of discussing a concept, method, etc. (e.g., *Behavior and Social Issues*, v. 13, n. 2; *Brazilian Journal of Behavior Analysis*, v.9 n. 1/2), and collections in which there are interlocutors questioning the author of a text, with the possibility of reply and rejoinder (e.g., Skinner, 1984), can also be considered debates. The sciences, in general, establish many of their academic debates through the publication of articles, and a large proportion of these histories will narrate discussions presented through texts. However, the *History of Debates* is not interested in the text itself, but in the opposition of proposals regarding a phenomenon and the historical impact of that disagreement.

Furthermore, with the advent of technology, this type of history can also contemplate discussions that took place beyond texts (e.g., audio/video recordings of a congress in which there was a clash of propositions about a behavior-analytic phenomenon). Thus, for a narrative to be considered a *History of Debates*, this material must deal with the historical impacts of these different propositions for an area of knowledge and historically contextualize the influences of each of these distinct positions.

The Guide also assigns a temporal character to this category, emphasizing that such opposition of positions should be maintained in time. This is also an arbitrary cut, since the History of Behavior Analysis itself is a phenomenon that has its beginnings only recently. Thus, the continuity of a debate in time will not be an isolated criterion of analysis, but it will converge with the understanding of the historical impact that a debate has in the area, for example, symmetry *versus* asymmetry (e.g., Mayer, 2009; Santos, 2017), innate *versus* learned (e.g., Boakes, 1983; Herrnstein, 1972), the debates between N. Chomsky and B. F. Skinner (e.g., Andresen, 1991; Palmer, 2006; Richelle et al., 1976; Virués-Ortega, 2006) or the dialogue between T. N. Whitehead and B. F. Skinner on language (e.g., Claus, 2007).

#### **Conclusions**

Eleven recurring thematic categories in the History of Behavior Analysis were presented. As a theoretical construct, such categories are not definitive conceptualization parameters. In this way, other propositions can complement or oppose the categories presented here, just as this manuscript had as its starting point the categorization proposed by Coleman in the Guide.

It is also worth mentioning that the themes proposed here interface with other areas of knowledge and are not objects of analysis exclusive to Historiography. *Conceptual, institutional, social process*, etc. analysis can be carried out using historiographical criteria, but also philosophical, psychological, sociological, anthropological, economic, organizational, etc. The plurality of ways to analyze a concept, for example, makes explicit the tenuous and often turbulent line between History and Philosophy of Science (cf. Araujo, 2016, 2017; Hill & Kral, 2003; Martins, 2004; Nickles, 1995; Pinnick & Gale, 2000; Teo, 2013).

Based on the proposed definitions, research based on these thematic conceptualizations can analyze the behavior-analytic historiographical literature to establish a historical panorama of the area. These investigations may indicate the relevant characters in the evolution of a science, contributing to the demystification of the great scientist by exposing the contingencies in force in the life of this

<sup>&</sup>lt;sup>9</sup> (cf. Laurenti, 2008; Rodrigues & Strapasson, 2019; Strapasson & Dittrich, 2011; Tarui et al., 2022).

person (e.g., through *Biographical History*); indicate important journals, universities, associations, etc., helping members of the scientific community find graduate programs and specialized materials (e.g., through *Institutional History*, *History of Texts* or *History of Debates*); and favor the debate about contemporary social discussions in the area (e.g., through the *History of Social Processes*).

The categories presented in this manuscript can still be related to the broader historiographical debate established in the Historiography of Psychology since the late 1980s. In this regard, investigations into the source of historical change (i.e., Great Men and Zeitgeist), could analyze which of these conceptions is predominant in a given topic (e.g., Biographical History, History of Social Processes); what is the temporal reference (i.e., historicism and presentism) adopted by historians when investigating a theme (e.g., History of Social Processes, of Apparatus, of Debates); what is the interpretation focus of the historical phenomenon (i.e., externalism and internalism) predominant in a theme (e.g., Institutional or Conceptual History, of Disciplines).

Furthermore, we understand that the thematic categories proposition presents certain limitations. First, the categories presented here should not be taken in a rigid and inflexible way, ignoring the nuances and complexities presented in historical texts. Second, with the advent of digital media, for example, events, debates, presentations of concepts etc., can be performed virtually (e.g., videoconferencing), making room for a category that analyzes other narrative forms that are beyond the *History of Texts*.

Finally, starting from the point that categories are analysis clippings, we understand that the same text can address more than one theme, and often narrates histories that are not made explicit (e.g., not concepts present in the title, keywords). In this sense, these guidelines enable those interested in History of Behavior Analysis to understand other themes that may be being narrated and that have not been announced by the historian. This reading guide then helps a historical understanding of the area, indicating themes that are still incipient, the presence or absence of some objects of historiographical studies, indicating paths for research that seek to fill these gaps.

### References

- Akera, A. (2017). Bringing radical behaviorism to revolutionary Brazil and back: Fred Keller's Personalized System of Instruction and Cold War engineering education. *Journal of the History of the Behavioral Sciences*, 53(4), 364-382. https://doi.org/10.1002/jhbs.21871
- Andresen, J. (1991). Skinner and Chomsky 30 years later. Or: The return of the repressed. *The Behavior Analyst*, 14, 49-60. https://doi.org/10.1007/BF03392552
- Araujo, S. F. (2016). Toward a philosophical history of psychology: An alternative path for the future. *Theory and Psychology*, *27*(1), 87-107. https://doi.org/10.1177/0959354316656062
- Asano, T., & Lattal, K. A. (2008). Historical note on cumulative recorders manufactured in Japan. *Journal of the Experimental Analysis of Behavior*, 90(1), 125-129. https://doi.org/10.1901/jeab.2008.90-125
- Assis, F. R. P., Delitti, M., & Lima, M. V. O. (2005). Homenagem a Maria Amélia Matos. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 7(1), 1-3. http://pepsic.bvsalud.org/scielo.php?script=sci\_arttext&pid=S1517-55452005000100002&lng=pt&tlng=pt
- Baer, D. M. (1993). A brief, selective history of the Department of Human Development and Family Life at the University of Kansas: The early years. *Journal of Applied Behavior Analysis*, 26, 569-572. https://doi.org/10.1901/jaba.1993.26-569
- Barros, J. D'A. (2007). História das ideias: Em torno de um domínio historiográfico. *Locus: Revista de História*, 13(1), 199-209. https://periodicos.ufjf.br/index.php/locus/article/view/20661
- Benjamin, L. (1988). A history of teaching machines. *American Psychologist*, 43(9), 703-712. https://doi.org/10.1037/0003-066X.43.9.703

- Bjork, D. W. (1997). *B. F. Skinner: A life*. American Psychological Association. https://doi.org/10.1037/10130-000
- Boakes, R. A. (1983). Behaviorism and the nature-nurture controversy. In G. C. L. Davey (Ed.), *Animal models of human behavior* (pp. 15-35). Wiley.
- Brock, A. C. (2017). The new history of psychology: Some (different) answers to Lovett's five questions. *History of Psychology*, 20(2), 195–217. https://doi.org/10.1037/hop0000036
- Brožek, J., & Massimi, M. (2001). Curso de introdução à historiografia da psicologia: Apontamentos para um curso breve. *Memorandum*, *1*, 72-78. https://periodicos.ufmg.br/index.php/memorandum/article/view/6834
- Burnham, J. C. (1968). On the origins of behaviorism. *Journal of the History of the Behavioral Sciences*, 4, 143-151.
- Campos, R. H. F. (1998). Introdução à historiografia da psicologia. In J. Brožek & M. Massimi (Orgs.), *Historiografia da Psicologia moderna* (pp. 15-19). Edições Loyola. (Original work published 1980)
- Cândido, G. V. (2017a). Novas perspectivas para a história do Sistema Personalizado de Ensino: Seus fundadores. *Memorandum*, *33*, 51–67. https://periodicos.ufmg.br/index.php/memorandum/article/view/6651
- Cândido, G. V. (2017b). Introdução da análise do comportamento no Brasil: A cadeira de psicologia de Rio Claro (1962-1963). *Perspectivas em Análise do Comportamento*, 8(1), 135–143. https://doi.org/10.18761/pac.2016.027
- Catania, A. C. (2003). B. F. Skinner's Science and Human Behavior: Its antecedents and its consequences. *Journal of Experimental Analysis of Behavior*, 80, 313-320. https://doi.org/10.1901/jeab.2003.80-313
- Catania, A. C. (2008). The Journal of the Experimental Analysis of Behavior at fifty and one hundred. *Journal of the Experimental Analysis of Behavior*, 89(1), 111-118. https://doi.org/10.1901/jeab.2008.89-111
- Cirino, S. D., Miranda, R. L., Gonçalves, A. L., Miranda, J. J., Vieira, R. D., & Nascimento, S. S. (2010). Refletindo sobre o laboratório didático de análise do comportamento. *Perspectivas em Análise do Comportamento*, *I*(1), 15-27. https://doi.org/10.18761/perspectivas.v1i1.17
- Claus, C. K. (2007). B. F. Skinner and T. N. Whitehead: A brief encounter, research similarities, hawthorne revisited, what next? *The Behavior Analyst*, *30*, 79-86. https://doi.org/10.1007/BF03392147
- Coleman, S. R. (1981). Historical context and systematic functions of the concept of the operant. *Behaviorism*, 9, 207-226.
- Coleman, S. R. (1991). Contributions to the history of psychology: LXXX. The hyperbolic structure of eminence updated, 1975-1986. *Psychological Reports*, *68*, 1067-1070. https://doi.org/10.2466/PR0.68.4.1067-1070
- Coleman, S. R. (1996). Skinner's progress during the 1930s: Reflexes, operants, and apparatuses. In L. D. Smith & W. R. Woodward (Eds.), B. *F. Skinner and behaviorism in American culture* (pp. 110-127). Lehigh University Press.
- Coleman, S. R., Cola, P., & Webster, S. (1992a). Characteristics of the system of production of history-of-psycologhy literature, 1975-1986. *International Journal of Psychology*, 27(1), 110-124. https://doi.org/10.1080/00207599208246870
- Coleman, S. R., Cola, P., & Webster, S. (1992b). Contributions to psychohistory: XX. Ethnocentricity in the recent history-psychology literature. *Psychological Reports*, 71, 1267-1271. https://psycnet.apa.org/record/1993-23988-001
- Coleman, S. R., Cola, P., & Webster, S. (1993). Empirical assessment of methodology in the history-of-psychology literature, 1975-1986. *The American Journal of Psychology*, *106*(2), 253-272. https://doi.org/10.2307/1423171

- Coleman, S. R., Cola, P., & Webster, S. (1994). Contributions to the history of psychology: XCVIII. Topical content of history-of-psychology literature, 1975-1986. *Psychological Reports*, 74, 691-701. https://doi.org/10.2466/pr0.1994.74.2.691
- Cruz, R. N. (2006). História e historiografia da ciência: Considerações para pesquisa histórica em Análise do Comportamento. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 8(2), 161-178. https://doi.org/10.31505/rbtcc.v8i2.98
- Cruz, R. N. (2010). Possíveis relações entre o contexto histórico e a recepção do Behaviorismo Radical. *Psicologia: Ciência e Profissão*, 30(3), 478-491. https://doi.org/10.1590/S1414-98932010000300004
- Cruz, R. N. (2013). *B. F. Skinner e a vida científica: Uma história da organização social da Análise do Comportamento* [Doctoral dissertation, Federal University of Minas Gerais]. Repositório UFMG. https://repositorio.ufmg.br/handle/1843/BUOS-B33MTM
- Cruz, R. N. (2016). A fundação do JEAB e o isolamento histórica da Análise do Comportamento. *Psicologia: Teoria e Pesquisa*, *32*(3), 1-9. https://doi.org/10.1590/0102-3772E323215
- Cruz, R. N. (2019). B. F. Skinner: Uma biografia do cotidiano científico. Artesã.
- Day, W. F. (1998). The historical antecedents of contemporary behaviorism. In R. W. Rieber & K. Salzinger (Eds.), *Psychology: Theoretical-historical perspectives* (pp. 301-352). American Psychological Association.
- Dixon, D. R., Vogel, T., & Tarbox, J. (2012). A brief history of functional analysis and applied behavior analysis. In J. L. Matson (Ed.), *Functional assessment for challenging behaviors* (pp. 3-24). Springer Science + Business Media. https://doi.org/10.1007/978-1-4614-3037-7 2
- Fernandes, D. M., Perallis, C. G., & Pezzato, F. A. (2015). Creativity, Brazilian "jeitinho," and cultural practices: A behavioral analysis. *Behavior Analysis: Research and Practice*, 15(1), 28-35. https://doi.org/10.1037/h0101067
- Ferrater Mora, J. (2004). Dicionário de filosofia. Edições Loyola. (Original work published 1994)
- Ferreira, A. B. H. (2010). Dicionário Aurélio de língua portuguesa (5ª ed.). Positivo.
- Foucault, M. (1975). Surveiller et punir : Naissance de la prison. Gallimard.
- Foucault, M. (2012). Microfisica do poder. Graal. (Original work published 1978)
- Fowler, R. D. (Ed.). (1990). In memoriam: Burrhus Frederic Skinner, 1904-1990. *American Psychologist*, 45(11), 1203-1204. https://doi.org/10.1037/h0090812
- Furumoto, L. (1989). The new history of psychology. In I. S. Cohen (Ed.), *The G. Stanley Hall lecture series* (Vol. 9, pp. 9-34). American Psychological Association.
- Gilbert, R. (2016). Skinner's quest. Borden House Press.
- Gomes, D. C. S. (2014). *História das ideias na ciência: Horizontes de uma pesquisa historiográfica* [Master's thesis, Federal University of Minas Gerais]. Repositório UFMG. https://repositorio.ufmg.br/bitstream/1843/BUOS-9KSGCX/1/disserta o completa.pdf
- Goodall, K. (1972). Shapers at work. Psychology Today, 6(6), 53-62.
- Goodwin, C. J. (2005). História da psicologia moderna. Cultrix.
- Gotti, E. S., Argondizzi, J. G. F., Oliveira, E. A., Siqueira, D. I., & Ormelesi, M. F. (2021). Breve histórico das práticas experimentais no laboratório didático: Percalços e inovações. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 23(1), 1-35. https://doi.org/10.31505/rbtcc.v23i1.1653
- Guedes, M. C., Cândido, G. V., Belloti, A. C., Carvalho, J. C., Giolo, C. C., Vieira, M. C., Matheus, N. M., Miguel, R. R., & Gurgel, T. G. (2008). A introdução da análise do comportamento no Brasil: Vicissitudes. *Behaviors: Ciência Básica e Ciência Aplicada*, 12, 41-57.
- Hartley, M. (1991). Breaking the silence. Signet.
- Hawkins, R. P., Chase, P. N., & Scotti, J. R. (1993). Applied behavior analysis at West Virginia University: A brief history. *Journal of Applied Behavior Analysis*, *26*(4), 573-582. https://doi.org/10.1901/jaba.1993.26-573

- Herrnstein, R. J. (1972). Nature as nurture: Behaviorism and the instinct doctrine. *Behaviorism*, *1*, 23-52. http://www.jstor.org/stable/27759383
- Hill, D. B., & Kral, M. J. (2003). About psychology: Essays at the crossroads of history, theory, and philosophy. SUNY Press.
- Hothersall, D., & Lovett, B. J. (2022). *History of psychology* (5th ed.). Cambridge University Press. Hunziker, M. H. L. (2015). Obituário: Elenice Aparecida de Morais Ferrari. *Acta Comportamentalia*, 23(2), 101-102. https://www.revistas.unam.mx/index.php/acom/article/view/50101
- Iversen, I. H. (1992). Skinner's early research: From reflexology to operant conditioning. *American Psychologist*, 47, 1318-1328. https://doi.org/10.1037/0003-066X.47.11.1318
- Johnston, J. M., Carr, J. E., & Mellichamp, F. H. (2017). A history of the professional credentialing of applied behavior analysts. *The Behavior Analyst*, 40, 523-538. https://doi.org/10.1007/s40614-017-0106-9
- Kazdin, A. E. (1978). *History of behavior modification: Experimental foundations of contemporary research*. University Park Press.
- Keiner, S. A., Marinho, V. D., & Malerbi, F. E. K. (2020). Revisão sistemática dos estudos experimentais publicados na "Perspectivas em Análise do Comportamento" de 2010 a 2018. Perspectivas em Análise do Comportamento, 11(2), 206-219. https://doi.org/10.18761/pac.2020.v11.n2.07
- Keller, F. S. (1981). Charles Bohris Ferster: An appreciation. *Journal of the Experimental Analysis of Behavior*, *36*(3), 299-301. https://doi.org/10.1901/jeab.1981.36-299
- Keller, F. S. (1988). Mulheres analistas do comportamento no Brasil (passado e presente). *Psicologia: Teoria e Pesquisa*, *4*(1), 43-46. https://periodicos.unb.br/index.php/revistaptp/article/view/17033
- Kerbauy, R. R. (2001). ABPMC dez anos. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 3(2), 67-69. https://doi.org/10.31505/rbtcc.v3i2.136
- Kienen, N., Kubo, O. M., & Botomé, S. P. (2013). Ensino programado e programação de condições para o desenvolvimento de comportamentos: Alguns aspectos no desenvolvimento de um campo de atuação do psicólogo. *Acta Comportamentalia*, 21(4), 481-494. https://www.revistas.unam.mx/index.php/acom/article/view/43611
- Kienen, N., Panosso, M. G., Nery, A. G. S., Waku, I., & Carmo, J. dos S. (2021). Contextualização sobre a programação de condições para desenvolvimento de comportamentos (PCDC): Uma experiência brasileira. *Perspectivas em Análise do Comportamento*, *12*(2), 360-390. https://doi.org/10.18761/pac.2021.jul110
- Knapp, T. J. (1986). Contributions to psychohistory: XI. The Behavior of Organisms and the Principles of Behavior: Note on a technique of historical analysis. *Psychological Reports*, *59*(3), 1293-1294. https://doi.org/10.2466/pr0.1986.59.3.1293
- Köche, J. C. (2011). Fundamentos de metodologia científica: Teoria da ciência e iniciação à pesquisa. Editora Vozes.
- Kuhn, T. S. (1962). The structure of scientific revolutions. University of Chicago Press.
- Larsson, E. V. (2013). Is applied behavior analysis (ABA) and early intensive behavioral intervention (EIBI) an effective treatment for autism? A cumulative history of impartial independent reviews. Autism, 27(1), 1-14. https://www.behavior.org/resources/649.pdf
- Laties, V. G. (1987). Society for the Experimental Analysis of Behavior: The first 30 years (1958-1987). *Journal of the Experimental Analysis of Behavior*, 48(3), 495-512. https://doi.org/10.1901/jeab.1987.48-495
- Laties, V. G. (2013). The Journal of the Experimental Analysis of Behavior at fifty. *Journal of the Experimental Analysis of Behavior*, 89(1), 95-109. https://doi.org/10.1901/jeab.2008.89-95
- Lattal, K. A. (2004). Steps and pips in the history of the cumulative recorder. *Journal of the Experimental Analysis of Behavior*, 82(3), 329-355. https://doi.org/10.1901/jeab.2004.82-329

- Laurenti, C. (2008). Determinismo, probabilidade e análise do comportamento. *Temas em Psicologia*, 16(2), 171-183. http://pepsic.bvsalud.org/scielo.php?script=sci\_arttext&pid=S1413-389X2008000200003&lng=pt&tlng=pt
- Laurenti, C., & Lopes, C. E. (2016). Metodologia da pesquisa conceitual em psicologia. In C. Laurenti, C. E. Lopes & S. F. Araujo (Orgs.), *Pesquisa teórica em psicologia: Aspectos filosóficos e metodológicos* (pp. 41-69). Hogrefe.
- Laurenti, C., Lopes, C. E., & Araujo, S. F. (2016). Pesquisa teórica em Psicologia: Aspectos filosóficos e metodológicos. Hogrefe.
- Le Goff, J. (1996). *History and memory*. Columbia University Press. (Original work published 1990) Leonardi, J. L., & Cândido, G. V. (2022). The history of behavior therapy in Brazil and its relationship with the three waves. In W. O'Donohue & A. Massuda (Eds.), *Behavior therapy: First, second, and third waves* (pp. 723-741). Springer International Publishing.
- Lovett, B. J. (2006). The new history of psychology: A review and critique. *History of Psychology*, *9*(1), 17-39. https://doi.org/10.1037/1093-4510.9.1.17
- Lovitt, T. C. (1993). A brief history of applied behavior analysis at the University of Washington. *Journal of Applied Behavior Analysis*, 26(4), 563-567. 10.1901/jaba.1993.26-563
- Malott, M. E. (2022). Behavior analysis ambassador: In honor of João Claudio Todorov. *Revista Brasileira de Análise do Comportamento*, *18*(1), 71-75. https://doi.org/10.18542/rebac.v18i1.12698
- Martins, I. A. (2016). Por uma história da Associação Brasileira de Psicologia e Medicina Comportamental (ABPMC): Uma revisão de suas publicações [Master's thesis, Pontificia Universidade Católica of Sao Paulo]. Repositório PUCSP. https://repositorio.pucsp.br/handle/handle/19388
- Martins, R. A. (2004). Ciência versus historiografia: Os diferentes níveis discursivos nas obras sobre história da ciência. In A. M. Afonso-Goldfarb & M. H. R. Beltran (Eds.), *Escrevendo a história da ciência: Tendências, propostas e discussões historiográficas* (pp. 115-147). Editora Livraria da Física.
- Matos, M. A. (1998). Contingências para a análise do comportamento no Brasil. *Psicologia USP*, 9(1), 89-100. https://doi.org/10.1590/psicousp.v9i1.107744
- Mayer, P. C. M. (2009). Duas definições comportamentais de punição: História, conceitos e implicações [Master's thesis, State University of Londrina]. http://www.uel.br/pos/pgac/wp-content/uploads/2014/03/Duas-defini%C3%A7%C3%B5es-comportamentais-depuni%C3%A7%C3%A3o-hist%C3%B3ria-conceitos-e-implica%C3%A7%C3%B5es.pdf
- Michael, J. (1993). A brief overview of the history of Western Michigan University's behavioral programs. *Journal of Applied Behavior Analysis*, 26(4), 587-588. https://doi.org/10.1901/jaba.1993.26-587
- Michael, J. (2004). Historical antecedents of behavior analysis. In J. Michael (Ed.), *Concepts and principles of behavior analysis and verbal behavior* analysis (pp. 93-104). Society for the Advancement of Behavior Analysis.
- Micheletto, N. (1995). *Uma questão de consequências: A elaboração da proposta metodológica de Skinner* [Doctoral dissertation, Pontificia Universidade Católica de Sao Paulo. Repositório PUCSP. https://tede2.pucsp.br/handle/handle/17329
- Montaño, C., & Doriguetto, M. L. (2017). Estado, classe e movimento social. Cortez.
- Moore, J. (1985). Some historical and conceptual relations among logical positivism, operationism, and behaviorism. *The Behavior Analyst*, 8(1), 53-63. https://doi.org/10.1007/BF03391912
- Moore, J. (2005a). Some historical and conceptual background to the development of B. F. Skinner's radical behaviorism Part 1. *The Journal of Mind and Behavior*, 26(1/2), 65-94. https://www.jstor.org/stable/43854053

- Moore, J. (2005b). Some historical and conceptual background to the development of B. F. Skinner's radical behaviorism Part 2. *The Journal of Mind and Behavior*, 26(1/2), 95-123. https://www.jstor.org/stable/43854054
- Moore, J. (2005c). Some historical and conceptual background to the development of B. F. Skinner's radical behaviorism Part 3. *The Journal of Mind and Behavior*, 26(3), 137-160. https://www.jstor.org/stable/43854451
- Morris, C., & Peterson, S. M. (2022). Teaching the history of applied behavior analysis. *Perspectives on Behavior Science*, 1-18. https://doi.org/10.1007/s40614-022-00354-x
- Morris, C., Goetz, D. B., & Gabriele-Black, K. (2021). The treatment of LGBTQ+ individuals in behavior-analytic publications: A historical review. *Behavior Analysis in Practice*, *14*(4), 1179-1190. https://doi.org/10.1007/s40617-020-00546-4
- Morris, E. K. (2013). The legacy of John B. Watson's behaviorist manifesto for applied behavior analysis. *Revista Mexicana de Análisis de la Conducta*, 39(2), 156-179.
- Morris, E. K. (2015). In memoriam: Nathaniel Gene Smith 1976-2014. *The Behavior Analyst*, *38*, 143-145. https://doi.org/10.1007/s40614-014-0021-2
- Morris, E. K. (2022a). Teaching a course on the history of behavior analysis. *Perspectives on Behavior Science*, 45(4), 775-808. https://doi.org/10.1007/s40614-022-00357-8
- Morris, E. K. (2022b). What is first-wave behavior therapy? In *Behavior Therapy: First, Second, and Third Waves* (pp. 83-107). Springer International Publishing.
- Morris, E. K., Baer, D. M., Favell, J. E., Glenn, S. S., Hineline, P. N., Malott, M. E., & Michael, J. (2001). Some reflections on 25 years of the Association for Behavior Analysis: Past, present, and future. *The Behavior Analyst*, 24, 125-146. https://doi.org/10.1007/BF03392025
- Morris, E. K., Todd, J. T., Midgley, B. D., Schneider, S. M., & Johnson, L. M. (1990). The history of behavior analysis: Some historiography and a bibliography. *The Behavior Analyst*, *13*(2), 131-158. https://doi.org/10.1007/BF03392530
- Morris, E. K., Todd, J. T., Midgley, B. D., Schneider, S. M., & Johnson, L. M. (1995). Some historiography of behavior analysis and some behavior analysis of historiography. In J. T. Todd & E. K. Morris (Eds.), *Modern Perspectives on B. F. Skinner and Contemporary Behaviorism* (pp. 195-216). Lawrence Erlbaum Associates.
- Nickles, T. (1995). The philosophy of science and the history of science. *Osiris*, 10, 139-163. https://doi.org/10.1086/368747
- Nunes, C. (2014). O conceito de movimento social em debate dos anos 60 até à atualidade. Sociologia, problemas e práticas, 75, 131-147. https://journals.openedition.org/spp/1596
- O'Donohue, J. T., Henderson, D. H., Hayes, S. C., Fisher, J. E., & Hayes, L. J. (Eds.). (2001). *A history of the behavior therapies: Founders' personal histories*. Context Press.
- Oliveira, E. A. S., & Heuser, E. M. D. (2017). O dispositivo disciplinar nos estudos de Michel Foucault. *Aufklärung: Revista de Filosofia*, *4*(2), 91-106. https://doi.org/10.18012/arf.2016.32658
- Palmer, D. C. (2006). On Chomsky's appraisal of Skinner's Verbal Behavior: A half century of misunderstanding. *The Behavior Analyst*, 29, 253-267. https://doi.org/10.1007/BF03392134
- Pilgrim, C. (2003). Science and Human Behavior at fifty. *Journal of Experimental Analysis of Behavior*, 80, 329-340. https://doi.org/10.1901/jeab.2003.80-329
- Pinnick, C., & Gale, G. (2000). Philosophy of science and history of science: A troubling interaction. *Journal for General Philosophy of Science*, 31(1), 109-125. https://doi.org/10.1023/A:1008353021407
- Pogrebinschi, T. (2004). Foucault, para além do poder disciplinar e do biopoder. *Lua Nova: Revista de cultura e política*, 179-201. https://doi.org/10.1590/S0102-64452004000300008
- Ribes-Iñesta, E. (2022). Joao Claudio Todorov: Remembrances. *Revista Brasileira de Análise do Comportamento*, 18(1), 95-96. https://doi.org/10.18542/rebac.v18i1.12708
- Richelle, M. N. (2016). B. F. Skinner: A reappraisal. Routledge. (Original work published 1993)

- Richelle, M., Foster, W. S., & Rondal, J. A. (1976). Formal analysis and functional analysis of verbal behavior: Notes on the debate between Chomsky and Skinner. *Behaviorism*, *4*(2), 209-221. https://www.jstor.org/stable/27758868
- Richter, M. (1987). Begriffsgeschichte and the History of ideas. *Journal of the History of Ideas*, 48(2), 247-263. https://doi.org/10.2307/2709557
- Rodrigues, N. B., & Strapasson, B. A. (2019). Reflexões sobre a discussão do (in)determinismo na análise do comportamento brasileira. *Acta Comportamentalia*, 27(4), 497-510. https://www.revistas.unam.mx/index.php/acom/article/view/72028
- Ruiz, M. R. (1995). B. F. Skinner's radical behaviorism: Historical misconstructions and grounds for feminist reconstructions. *Women of Psychology Quarterly*, *19*, 161-179. https://doi.org/10.1111/j.1471-6402.1995.tb00285.x
- Rutherford, A. (2000). Radical behaviorism and psychology's public: B. F. Skinner in the popular press, 1934-1990. *History of Psychology*, *3*(4), 371-395. https://doi.org/10.1037/1093-4510.3.4.371
- Rutherford, A. (2003). B. F. Skinner's technology of behavior in American life: From consumer culture to counterculture. *Journal of History of the Behavioral Sciences*, *39*(1), 1-23. https://doi.org/10.1002/jhbs.10090
- Rutherford, A. (2009). Beyond the box: B. F. Skinner's technology of behavior from laboratory to life, 1950s-1970. University of Toronto Press.
- Santos, B. C. (2017). O conceito de punição na obra de B. F. Skinner: Uma análise histórico-conceitual (1930-1990) [Doctoral dissertation, Universidade Federal do Pará]. Repositório UFPA. https://repositorio.ufpa.br/jspui/handle/2011/10471
- Schneider, S. M., & Morris, E. K. (1987). A history of the term radical behaviorism: From Watson to Skinner. *The Behavior Analyst*, 10, 27-39. https://doi.org/10.1007/BF03392404
- Sidman, M. (1994). Equivalence relations and behavior: A research story. Authors Cooperative.
- Silva, T. S., Flandoli, B. R. G. X., & Mizael, T. M. (2022). Questões raciais na análise do comportamento: Uma análise preliminar sobre a baixa produção da área. *Perspectivas em Análise do Comportamento*, *Ed. Especial* (Estresse de Minorias), 371-385. https://doi.org/10.18761/VEEM.0077.out21
- Simon, J. L., Morris, E. K., & Smith, N. G. (2007). Trends in women's participation at the meetings of the Association for Behavior Analysis: 1975-2005. *The Behavior Analyst*, *30*, 181-196. https://doi.org/10.1007/BF03392154
- Simonton, D. K. (1998). Historiometric methods in social psychology. *European Review of Social Psychology*, *9*(1), 267-293. https://doi.org/10.1080/14792779843000108
- Simonton, D. K. (1999). Creativity from a historiometric perspective. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 116-133). Cambridge University Press.
- Skinner, B. F. (1938). The behavior of organisms: an experimental analysis. Appleton-Century.
- Skinner, B. F. (1953). Science and human behavior. Macmillan.
- Skinner, B. F. (1956). A case history in scientific method. *American Psychologist*, 11(5), 221-233. https://doi.org/10.1037/h0047662
- Skinner, B. F. (1967). B. F. Skinner. In E. G. Boring & G. Lindzey (Eds.), *A history of psychology in autobiography* (vol. 5, pp. 385-413). Appleton-Century-Crofts. https://doi.org/10.1037/11579-014
- Skinner, B. F. (1971). Beyond freedom and dignity. Knopf.
- Skinner, B. F. (1974). About behaviorism. Knopf.
- Skinner, B. F. (1976). Particulars of my life: Part one of an autobiography. Knopf.
- Skinner, B. F. (1979). The shaping of a behaviorist: Part two of an autobiography. Knopf.
- Skinner, B. F. (1980). The experimental analysis of behavior: A history. In R. W. Rieber & K. Salzinger (Eds.), *Psychology: Theoretical-historical perspectives* (pp. 191-202). Academic Press.
- Skinner, B. F. (1983). A matter of consequences: Part three of an autobiography. Knopf.

- Skinner, B. F. (1984). Skinner: Canonical papers. Behavioural and Brain Sciences, 7, 473-701.
- Smith, L. D., & Woodward, W. R. (1996). B. F. Skinner and behaviorism in American culture. Lehigh University Press.
- Smith, N. G., & Morris, E. K. (2004). A tribute to B. F. Skinner at 100: His awards and honors. *European Journal of Behavior Analysis*, 5(2), 121-128. https://doi.org/10.1080/15021149.2004.11434238
- Souza, F. H. S. (2018). Uma análise conceitual das agências controladoras e sua relação com a sobrevivência das culturas [Master's thesis, State University of Londrina]. http://www.uel.br/pos/pgac/wp-content/uploads/2018/12/Uma-an%C3%A1lise-conceitual-das-ag%C3%AAncias-controladoras-e-sua-rela%C3%A7%C3%A3o-com-a-sobreviv%C3%AAncia-das-culturas.pdf
- Tarui, M. S., Farias, V. C., Dittrich, A., & Strapasson, B. A. (2022). O comportamento é determinado? O que pensam os analistas do comportamento brasileiros. *Acta Comportamentalia*, 30(2), 323-339. https://www.revistas.unam.mx/index.php/acom/article/view/82677
- Teo, T. (2013). Agnotology in the dialectics of the history and philosophy of psychology. *Theory & Psychology*, 23(6), 840-851. https://doi.org/10.1177/0959354313504838
- Todorov, J. C., & Hanna, E. S. (2010). Análise do comportamento no Brasil. *Psicologia: Teoria e Pesquisa*, *26*(n. especial), 143-153. https://doi.org/10.1590/S0102-37722010000500013
- Tourinho, E. Z. (1999). Estudos conceituais na análise do comportamento. *Temas em Psicologia*, 7(3), 213-222. http://pepsic.bvsalud.org/scielo.php?script=sci\_arttext&pid=S1413-389X1999000300003&lng=pt&tlng=pt
- Tourinho, E. Z. (2006). Organização e representação da comunidade científica em análise do comportamento no Brasil. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 8(2), 232-236. https://doi.org/10.31505/rbtcc.v8i2.104
- Vaughan, M. (1989). Rule-governed behavior in behavior analysis: A theoretical and experimental history. In S. C. Hayes (Ed.), *Rule-governed behavior: Cognition, contingencies, and instructional control* (pp. 97-118). Plenum Press.
- Virués-Ortega, J. (2006). The case against B. F. Skinner 45 years later: An encounter with N. Chomsky. *The Behavior Analyst*, *29*, 243-251. https://doi.org/10.1007/BF03392133
- Watrin, J. P. (2017). The "new history of psychology" and the uses and abuses of dichotomies. *Theory and Psychology*, 27(1), 69-86. https://doi.org/10.1177/0959354316685450
- Watters, A. (2023). Teaching machines: The history of personalized learning. MIT Press.
- Wertheimer, M. (1998). Pesquisa histórica Por quê? In J. Brožek & M. Massimi (Orgs.), Historiografia da psicologia moderna (pp. 21-41). Edições Loyola. (Trabalho original publicado em 1980)
- Williams, R. A., & Buskist, W. F. (1983). Twenty-five years of JEAB: A survey of selected demographic characteristics related to publication trends. *The Behavior Analyst*, 6, 161-165. https://doi.org/10.1007/BF03392395
- Woodward, W. R. (1980). Toward a critical historiography of psychology. In J. Brožek & L. J. Pongratz (Eds.), *Historiography of Modern Psychology* (pp. 29-67). Hogrefe.
- Zilio, D. (2019). O que nos torna analistas do comportamento? A teoria como elemento integrador. *Acta Comportamentalia*, 27(2), 233-247.
  - https://www.revistas.unam.mx/index.php/acom/article/view/69862
- Zuriff, G. E. (1985). A conceptual reconstruction. Columbia University Press.
- Zusne, L. (1985). Contributions to the history of psychology: XXXVIII. The hyperbolic structure of eminence. *Psychological Reports*, *57*(3), 1213-1214. https://doi.org/10.2466/pr0.1985.57.3f.1213
- Zusne, L., & Dailey, D. P. (1982). History of texts as measuring instruments of eminence in psychology. *Revista de Historia de la Psicologia*, *3*(1), 7-42. https://journals.copmadrid.org/historia/art/38913e1d6a7b94cb0f55994f679f5956