

**EPC277 - A DISCUSSION ABOUT DATA VALIDATION AND SCIENTIFIC  
ASSUMPTION OF IMPARTIALITY IN ACCOUNTING BY HORKHEIMER'S  
PERSPECTIVE OF INSTRUMENTAL REASON (VERSTAND)**

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**Resumo**

In this paper we discuss by Horkheimer's perspective of verstand, aspects related to data validation and impartiality in accounting research. Thus we show briefly an evolutionary view of accounting in order to highlight the development of accounting thought until a traditional theoretical perspective adopted. Then we make a counterpoint to this traditional perspective by verstand. In our discussion, we claim from researchers a choice between vernunft or verstand, and make clear the data limitations into interpretations inside instrumental idea. As a result, by adding the verstand perspective in accounting research some interesting insights and interpretation will be provided by future research. In so doing, we expect a special attention to epistemological position which improve the data validation.

## A DISCUSSION ABOUT DATA VALIDATION AND SCIENTIFIC ASSUMPTION OF IMPARTIALITY IN ACCOUNTING BY HORKHEIMER'S PERSPECTIVE OF INSTRUMENTAL REASON (*VERSTAND*)

### ABSTRACT

In this paper we discuss by Horkheimer's perspective of *verstand*, aspects related to data validation and impartiality in accounting research. Thus we show briefly an evolutionary view of accounting in order to highlight the development of accounting thought until a traditional theoretical perspective adopted. Then we make a counterpoint to this traditional perspective by *verstand*. In our discussion, we claim from researchers a choice between *vernunft* or *verstand*, and make clear the data limitations into interpretations inside instrumental idea. As a result, by adding the *verstand* perspective in accounting research some interesting insights and interpretation will be provided by future research. In so doing, we expect a special attention to epistemological position which improve the data validation.

**Keywords:** Data Validation and Impartiality; Positivism; *Verstand*; Horkheimer; Critical Theory.

### 1. INTRODUCTION

Other papers also discussed and criticizing the false image of accounting as an impartial science. Following this thinking, this paper adopts the critical perspective based on Max Horkheimer<sup>1</sup> to contribute on the discuss about the accounting data validation and the scientific assumption of it impartiality.

This is on the assumption, inherent in the critical perspective, that it is impossible to reach an undoubted information by the instrumental reason, just fragments of this data. Starting from a traditional historical review of accounting as a science, we intend to discuss the distortions of subjectivity reason and sociohistorical context caused in certain phenomena and results obtained, so that it reaches a certain number because this truth seen as purely rational and objective has some theoretical inconsistencies.

The classical accounting theory would leave some axioms not entirely true, that there is fairness, rationality and neutrality around the accounting. This transforms the accounting in a paradigm that goes against the specificity and complexity of events; which turns in the same the different; which makes any new attempts in a reproduction for paradigmatic status quo. In other words, this traditional view of accounting prevents the emergence of something new actually, since this "new" has to be limited to the framework of an existing paradigm.

Sciences that do not deal in them, who do not question or constantly revisit their axioms and paradigms, and your effects against the phenomena, indicate a willingness (and faith) to remain under the pillars that gave birth, which can lead to serious limitations both practice and theory. Transforming the phenomenon in its contextual complexity of being inserted into a society with ethical concepts, morals, ideologies, concepts of justice, values, beliefs in a mere desideratum, twisted to force the method to get the proper result the dominant theory.

We will take for the first part of this paper the analytical methodology, which involves the study and in-depth evaluation of available information in an attempt to explain the context of the relationship between positivism and accounting, and later, we will make use of hermeneutic methodology, trying to analyze the phenomenon of accounting data from many perspectives and complexities, as the basis for a critique of traditional concepts of accounting by the Critical Theory of Horkheimer.

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<sup>1</sup> Thinker of first generation from Frankfurt School.

## 2. ORIGIN AND EVOLUTION OF ACCOUNTING: A TRADITIONAL THEORETICAL PERSPECTIVE

Although rudimentary accounting procedures and techniques have been dated to around 4.000 BC, according to Hendriksen & Van Breda (1999), the systematization of accounting as a tool to support the management coincides with the period of the Italian Renaissance. In this sense, Andrade (2009) states that this period converges to a more organized business structure and that this period can be considered a milestone in accounting as it is currently understood.

Also according to Andrade (2009), influenced by the empiricist philosophical bases of Francis Bacon and John Locke, through which knowledge is accruing from the experiences, Accounting, having essentially the factual knowledge, which is the application of base we had in the renaissance period space to develop their techniques that persist to the present time, the example of double entry. In this direction, Laughlin (1995) and Mattessich (1980) point out that few researchers contend that empirical research in accounting is of central importance, a view that gained strength during the 1970s, instead of the old paradigm of research, of regulatory accounting.

No wonder the schools of accounting thought that began to systematize one foundation body of what would be the Accounting and obtained greater influence were those that were a knowledge predominantly economic-based with empiricist character, such as Contist School, Controlist School, *Economia Aziendale* School, Patrimonialist School and, recently the North American School (Hermann Junior, 1996; Schmidt; Santos, 2008; Andrade, 2009).

This way, the accounting practice and research roots is based on economic reality concept. As a consequence, many practitioners, researchers, and standard setting bodies believe that accounting can achieve unbiased representation of economic reality (Maali & Jaara, 2014). In this traditional epistemic held values, "Accounting used to be considered as a non-problematic tool and data source recording a pre-existing economic reality" (Suzuki, 2003).

Glautier and Underdown (2001) state that at first, the accounting theory demanded the confirmation or refutation of existing accounting practices. However, recently there is a more precise and well-defined interests around a methodological process almost exclusively focused on empirical verification theories.

The final assumption of Glautier & Underdown (2001) is that the dominant approaches in accounting converge around the construction and development of a conceptual reference to guide the accounting practice and the performance of financial professionals. Thus, although the authors defend a wellness approach, do not escape the dominant paradigm that accounting is based on empiricism, or in other words, in reality.

In turn, Mattessich (1995) questions the accounting ability to represent the reality, stating that the perception that accounting tangency of reality is the social reality that should not be confused with any other. However, according to the thought of Mattessich (1995), there are two specific environments where the accounting representation acts: the empirical relational system and the numerical relational system.

Still, when presenting its conditional-normative conceptual representation in accounting, Mattessich (1995) assumes that the positive sources of accounting are able to represent the economic reality, if applied with methodological rigor.

It is noticed so that although act even heterogeneous current of thought in accounting called critical thinking, accounting (as well as all the sciences that structured and still are based on positivism) has a dominant view that the human mind is capable to mirror reality with property (Ribeiro Filho, Lopes, Feitosa, & Pederneiras, 2009).

This predominance can be seen reflected, as an example, in IAS 1 which is standardized basic conceptual statement. This standard is the basis for all the others, which is placed that reliable accounting information, needs to be complete, neutral and free of errors. In other words,

it folds up the understanding that the information produced by the accounting is always being the most complete and possible bias-free.

Moreover, Kam (1990) states that the starting point or the core of accounting theory goes through what he calls the theory of measurement which in turn involves the binding of a formal system, the number system with aspects events or goals from the use of semantic rules.

The measurement becomes possible due to an isomorphic relationship of similarity between certain characteristics of the numerical system as disclosed in the mathematical model, relationships between objects or events with respect to the given property. Among the various types of measurement approached by Kam (1990), there is a discretionary measure, which requires an arbitrary allocation of numbers and that this measurement is, in general, found in accounting, much under the regulatory, legal and normative systems that impose a "measurement by decree".

Ribeiro Filho et al. (2009) reinforces that accounting still needs a consolidation in its scientific paradigms in order to avoid discretion, which impacts the accuracy of the numerical assignment and even the very number found.

It can be seen through this brief classic historical concept, that accounting as a science and consequently research and practice, has its dominant roots in the positivism<sup>2</sup> and empiric, and it is directly reflected in the tireless search for numerical accuracy, data validation and informational impartiality.

### **3. A CRITICAL COUNTERPOINT TO ACCOUNTING POSITIVISM UNDER HORKHEIMER'S PERSPECTIVE**

According to Bassani (2014), Horkheimer in his works shows the relevance of what he defines as an interdisciplinary program, pointing to the need for unification of the sciences and philosophy. However, in Horkheimer view of this junction it is not a purely theoretical approach, by contrast, is a demand that has its origin in response to marginalization and irrelevance about social problems given by other approaches. Within these approaches is the so-called positivist science, which has its apex in the thoughts of Auguste Comte.

Barra (2008) affirms that the positivist method is the method that permeates the organization of thought, whether in scientific production in force at the University, the influence in public and government organizations such as political parties, educational systems, industries, means of mass communication, among others. It must be noted that the spread of positivism in social organizations is a camouflaged form reproducing power systems, social ideology and maintaining the status quo.

This positivist science assumes the role of making absolute the sensible to the detriment of the theory in the form of suppression of dichotomy appearance/essence, through what can be defined as intuition and also to consider the laws of nature as invariable. Thus, positivism, restricts knowledge to sensory experiences, the simple fact checking, which has already always meaning itself. Knowledge is facing and acquires its validity, then in particular. This position makes positivism is not only determined by its object, but also leads to imbue is the subjectivity of the subject, to transfer and retain the temporality in the subject, ignoring the relationship between subject and object dialectically (Bassani, 2014).

In positivism, knowledge and reality are taken as being the same thing, in other words, positivism takes the origin and condition of knowledge as the same reality: sensitive experiences. Knowledge, in the positivist manner, is characterized by trying to be ahistorical, tying his search for universal principles and concepts. (Bassani, 2014).

One of the major pillars of the positivist perspective is the belief stemmed from ingenuous empiricism: the possibility of immediate access to empirical data, place of all truth.

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<sup>2</sup> Here we are dealing with the philosophical positivism, which should not be confused with what is called accounting positivism (or positivist research in accounting).

This idea comes from the assumption, questioned throughout modernity (from the skepticism of Hume to phenomenology of Hegel, through idealism of Kant), of a kind of belief the observation is not influenced by nothing more than their own external object.

Against empiricism, Kant affirms that there are ends proper to culture, ends proper to reason. Indeed, only the cultural ends of reason can be described as absolutely final. 'The final end is not an end which nature would be competent to realize or produce in terms of its idea, because it is one that is unconditioned' (Deleuze, 1984, p. 18).

Ingenuous empiricists, to not thematize what it means and what influences the concept of observation, turns the desire for objectivity in a new metaphysical argument. This form of empiricism based the idea of objectivity in knowledge at the thought of possibility of immediate access to an external object in your exteriority, not considering important the distortions caused by subjectivity, historical and social contexts, beliefs or ideologies. In this way, it would be possible to start true knowledge, simply logically chaining the data obtained from a faith in immediate access to sensitive reality.

It can be clearly seen in accounting in their relentless pursuit of empirical knowledge, specifically from the 1970s, and before that, the normative knowledge. Although they have some change in their concepts, both have in common the same paradigm, positivism. Derived from this empiricism (and normalization) the relentless pursuit of standards, metrics, and said unbiased numerical explanations. About it, Horkheimer (1983) states that the very logical operations are already rationalized to the point that, at least in much of science forming theories became mathematical construction<sup>3</sup>. The theory of knowledge of Locke, your empiricism, is an example of this deceptive lucidity of style that reconciles opposites simply deleting the nuances. Locke's work was not taken too closely discriminate between sensual experience and rational and between the atomistic and structured (Horkheimer, 1973).

Thus the positivist science, since it abandons the criticism and revisiting the axioms, aiming for neutrality and impartiality to achieve the objective validity, creates his own prison next to the sphere of faith in empirical data, entering a kind of circularity in believes staring at information obtained from unenlightened concepts, fixed and fetishists, while these could be clarified by incorporating the dynamics of the facts (Horkheimer, 1993).

Subsequently, the content of reason is reduced arbitrarily to the scope of merely a part of this content, to the frame of only one of its principles; the particular pre-empts the place of the universal (...) Having given up autonomy, reason has become an instrument. In the formalistic aspect of subjective reason, stressed by positivism, its unrelatedness to objective content is emphasized; in its instrumental aspect, stressed by pragmatism, its surrender to heteronomous contents is emphasized. Reason has become completely harnessed to the social process. Its operational value, its role in the domination of men and nature, has been made the sole criterion. (Horkheimer, 2004, P.14-15)

This abandonment of critical and autonomy transforms reason - before an essential instrument of seeking truth, understanding of universal / essential or complex contexts - in an instrumental reason purely, which works only on the adequacy of the data to the default settings or models; a strictly peaceful reason, subordinate to the dominant status quo and engaged in in their reproduction. The more ideas become automatic and instrumentalized the less we can see in them thoughts with a meaning of their own. (Horkheimer, 2004).

The task, therefore, which Horkheimer proposed, was to refute these aspects, proposing and returning as output materialism and interdisciplinary program. According to Horkheimer (1972) the materialist theory is not limited to sensitive and that even the biological unit responsible for cognition changes with historical changes. Moreover, distinguishing

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<sup>3</sup>This is the great object of modernity: a theory, a method that can even think/thing. Therefore, the modern fixation on mathematics, it gives security and certainty almost absolute. However, at what costs we limit part of the phenomenon to turn it into numbers?

materialism even more positivism, Horkheimer uproots the question about the value neutrality raised by positivism on the lines of the limiting notion of knowledge-sensitive. For positivism, to not pursue issues that could not be resolved, remain impartial. For materialism, despite the knowledge limit, no area should be ignored. Since positivism to pursue deliberately the most extreme objectivity, purified of all subjective projections, however only entangles itself more and more in particular of an instrumental reason, which has a strongly subjectivist nature (Adorno, 1999). “At the same time, however, its neutrality means the wasting away of its real spirit, its relatedness to truth, once believed to be the same in science, art, and politics, and for all mankind”. (Horkheimer, 2004, P.13)

Therefore, what Horkheimer proposes to oppose the positivism is not to ignore the standards, metrics and validity of the data collected. The proposal involves understanding that said neutrality and impartiality (quite rooted ideas in traditional accounting thinking) should not be treated as a knowledge limiter. Supported this proposal for Horkheimer, we can say then that impartiality anchored in this empiricism in Accounting, is nothing more than a way to bypass the search for problem solutions. In that connection, Horkheimer (1972, p. 39) states that “we do not know everything does not mean at all that what we do know is the nonessential and what we do know, the essential”. This is because positivism is a spirit of time, which as introducing the absolute security that promises after the collapse of traditional metaphysics. Moreover, it lends itself especially to ideological manipulation because of its indeterminacy content, their ordering procedure, and the preference for certainty in the face of truth (Adorno, 1999).

The Horkheimer’s research program was guided, therefore, by the dialectic between research (*Forschung*) and presentation (*Darstellung*), and the tasks performed by the philosophy and the science well defined according to the characteristics of their own disciplines. This is not, however, a disciplinary split into separate departments, or the simple juxtaposition of the different areas in social research, but exactly their integration in constant collaboration, despite the separation of procedures (Horkheimer, 1993).

The first task of this interdisciplinary program is to identify the problems raised by the main philosophical and sociological debates<sup>4</sup>. The second step would be to verify the ways in which research addressed these issues. Then it would establish the criticism of these approaches, then reformulate the problem so that it was possible to carry out an empirical research work in several areas, and here is part of accounting. During this research process, following the idea of a constant collaboration among researchers, complementary methods would be developed according to the presented question (Horkheimer, 1993).

According to Bassani (2014), following this reasoning, keeping together in mind obscurantism provided by positivism on the relationship between knowledge and interest and the role of critical science with emancipatory intent, Habermas (1987) “unmasked” false neutrality axiological self-affirmed by this stream of thought. To retrace the path of success of positivism, Bassani (2014) states that the reflection of Habermas (1987) presents the historical failure of a knowledge that invokes the real ahistorical to shield his scientific method against any epistemic questioning.

With this, the Accounting interest that could be emancipatory becomes proactive, ideational artifact, a sort of ideological simulacrum: knowledge is automated over interests of society that actually support it. Supported in this transformation, the traditional Accounting form an ideology in favor of maintaining the status quo (and hence power), there is a serious question to do about the insistent search for affirmation of accounting data as impartial and neutral information. Accounting as it appears disposes of its thinking function. The more the concept of reason passe instrumentalized, the more easily it lends itself to ideological

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<sup>4</sup>This step is fundamental to understanding the context of the researcher not only the emergence of the problem, but the methods and axioms that will connect, and in turn providing the second step possible distortion curve of the obtained result.

manipulation and to propagation of the event lies. The advance of positivist enlightenment dissolves the necessity of the idea of substantive reason - considered dogmatic and superstitious. And the need to think beyond models, paradigms and common sense become fictions, loss of time, which divert the science of its genuine development: expanding the knowledge, adjusting data in the model of the truth that has been found (Horkheimer, 2004). In proposing the denial of absolute truth, Adorno & Horkheimer (1985) distinguishes two reasons: *Verstand* (instrumental reason) and *Vernunft* (substantial reason). The *Verstand*, as an expression of modernity and your science, is the character of reason purely formal, operational, ordering data. In other words, *Verstand* is the idea that the truth is known (or which must first seek a formula to put into practice only after). On the other hand, *Vernunft* is dialectical reason, a temporary fact, due to historical factors. Through *Vernunft* is possible to question the unquestionable, overcome the conclusive truth and objective authority.

The *Verstand* becomes advance thought, without the need to retrace the path that leads to the search of thought itself, and as affirms Horkheimer (2000) as more ideas become automatic, instrumental, unless someone sees them thoughts with their own meaning. They are considered as things, machines, and that this violence or objectification allow the possibility of making a difference in abstract identity, the living phenomenon in empirical data, the lack of questioning of the axioms in objectivity and neutrality and arbitrarily result found in undoubted truth.

According to Adorno and Horkheimer (1985) the path taken by modern science (and here includes accounting), which resulted in *Verstand* (instrumental reason) is related to mathematized logic that follows the wake of technological progress of society. In other words, it's like magic given by positivist (for accounting) was a spell which the most deluded is the magic itself (the accounting user). Modern science, as understood by the positivists, essentially it refers to statements regarding facts and presupposes, therefore, the objectification of life in general and especially perception. That science sees the world as a world of facts and things and neglects the need to link the transformation The world on facts and things with the social process. (Horkheimer, 1973). Attempting to progressive rationalization of all, as understood and practiced in our civilization in search of an ideological concept of "progress", kills its own substance of reason. This instrumental reason puts a greater priority order the ends and not the means, a purely operative reason, trying to achieve results (by inference, deduction and classification) by procedures that are more or less undoubted and presumed self-explained.

In addition, Adorno and Horkheimer (1985) affirms that when, in the mathematical procedure, the unknown becomes the variable of an equation, he finds himself characterized it as something very known for, even before it enter any amount. Nature is which it must be grasped mathematically. Even what not it lets understand, indissolubility and irrationality, is surrounded by mathematical theorems. It is the actual dominant vision about the accounting data and accounting information. In this sense, Marcuse (1989) adds that since the reduction of science to mathematics means the final renunciation of truth, as the mathematical formalism leaves aside and prevents any understanding and critical use of facts.

Therefore, Chauí (2003) pointed that the competent discourse gets confused because, with institutionally permitted or authorized language, that is, with a speech in which the interlocutors have been previously recognized as having the right to speak and listen, in which the places and circumstances have been predetermined to be allowed to speak and listen and, finally, in which the content and form have been authorized according to the canons of the sphere of its competence. "No doubt the logical fallacy in which the positivist position is based only reveals his reverence for institutionalized science". (HORKHEIMER, 1973, P.87).

Thus, Horkheimer, with the critique of positivism as the dominant and arbitrary theory of the construction of objective validity, "imagined reorganize the philosophical reflection of the time, from an abstract level to a more concrete level [...]", seeking the reasons a theory that

takes into account "the empirical and historical contributions of sociology and modern historiography" in the construction of scientific work (Freitag, 1986, p. 14-15). This critical project does not disappear identity, she transforms qualitatively, preserving elements of the object's affinity with his thinking, inaugurating a new *modus operandi* for scientific research.

Knowledge Proposed by Horkheimer - autonomous, critical and speculative Reason (*Vernunft*) - opposes any epistemological attempt to reduce the objective basis of human analysis to the mere formalization and classification of chaotic data into pre-existing theoretical models. This thought aims to transpose the scientific work as operating to builder and critical of the realities; returning to science the necessity of thought universal, the totality, the criticism, the importance of ideology in the construction of knowledge; guaranteeing autonomy to the research and the possibility of a critical epistemology. (Horkheimer, 2004)

#### 4. SOME IMPLICATIONS OF THE POSITIVISM ON ACCOUNTING

The traditional way of accounting thinking is grounded in an abstract operation of rational thinking mechanism. Thinking of the totality, the complexity of the phenomena, the man and all his multitude of relationships (not only man of science, man of the economy) is set aside for the alleged pursuit of objectivity and truth ideal for paths (methodologies) considered true and beyond doubt.

On the other hand, the human dimension (of being in a totality of relations) is instrumentalized in search results. No matter the place where you come from, the ideology that believes, is born poor or rich, the country and culture where born, in a search to achieving the result everything is instrumented in the twist of the phenomenon to an abstract methodology, but the contraindication appears: loss the phenomenon in its relational complexity.

At this point accounting comes as reproduction tool of the capitalist structure, which in its distortions, sometimes leads to hunger, poverty, violence, segregation. Not even the human is included in this methodological approach of accounting. There is only cold numbers, depersonalization, twisting/death of the phenomenon by the violent inclusion of the phenomenon to the method. Capitalism may even be good, but a science that helps it to reproduce should also provide tools to recognize how numbers are produced, and at what price and cost that accelerated growth comes. Instrumentalization/total objectification of nature, of animals and humans by the coldness of the number is a major distortion of this model.

Briefly, this way of thinking is more concerned with the procedure, its validity and the search of results that truly the analysis of the object/phenomena. We fail to think things to think about and under procedures.

Over time, measurement bases has been discussed in several studies since the middle of last century to the beginning of the present century, e.g., Edwards & Bell (1961), Chambers (1966), Dyckman (1969), Ro (1980), Schaefer (1984), Ferguson & Wines (1986), Sutton (1988), Zeff (2007), Ronen (2008), Whittington (2008) and Power (2010).

In this regard, Kam (1990) believes that the center of an accounting theory is the theory of measurement. Deegan and Unerman (2011) recognize the importance of this debate and wonder about what makes a base be more successful than others, if is the merit of argument or the political interests.

About it, Horkheimer (2004, p. 6) points that:

the present crisis of reason consists fundamentally in the fact that at a certain point thinking either became incapable of conceiving such objectivity at all or began to negate it as a delusion. This process was gradually extended to include the objective content of every rational concept. In the end, no particular reality can seem reasonable perse; all the basic concepts, emptied of their content, have come to be only formal shells.

At this point approached by Deegan & Unerman (2011), we see the strong influence of positivism in accounting. The authors themselves, in spite of raising such questions, not very

deepened on it. Moreover, not deepen this kind of issues is a very strong trend observed in accounting theory and, consequently, in their research and in their practice. It is perceived remoteness of deep questioning of what exists beyond the number, ideologies, theories, beliefs, faith, transforms the scientist, while radical thinker (root origins) in operator and cataloguer.

“The acceptability of ideals, the criteria for our actions and beliefs, the leading principles of ethics and politics, all our ultimate decisions are made to depend upon factors other than reason” (Horkheimer, 2004, p.16). That is, whom this data serves? Whom accounting filed by the formalization and exploitation serves? Never put into question, since what matters is the logical-rational validity internal, if the method was well spent, if the answer comes is in accordance with the premises.

Also discussing the mensuration in accounting, Kam (1990) points that the accounting information are mostly classified as discretionary (arbitrary) measurement. An example of this is the Earnings Management, a management practice, based on accounting, by an economic perspective. Scott (2011 p. 423) defines as “the choice by a manager of accounting policies, or real actions, affecting earnings so as to achieve some specific reported earnings objective”. The Earnings Management, started with the paper of Healy (1985) and has been studied by many researchers, e.g., McNichols & Wilson (1988), Jones (1991), Holthausen, Larcker & Sloan (1995), Bartov, Givoly & Hayn (2002), Skinner & Sloan (2002), Tucker & Zarowin (2006) and Keung, Lin & Shih (2010).

What is common in all research cited on measurement in accounting and Earnings Management <sup>5</sup>is the fact that both discuss the number, mathematics. They seek a formula for, from there, to operationalize the process. This is what Horkheimer defines by *Verstand*.

In this context, Hendriksen & Van Breda (1999) state that the implicit assumption in the measurement basis is the best possible representation of reality. However, this statement neglects the political aspects behind the number, power games already mentioned by Horkheimer. Hendriksen & Van Breda (1999) assertion's is another pointer to the influence of positivism and *Verstand* in accounting. However, when considering *Vernunft* we have the possibility of expanding the horizons of understanding of the phenomena and accounting numbers.

It is important to point out that environmental accounting, while providing improved social remains within the dominant paradigm, not acting thus as a promoter of profound changes (Gray, Owen, & Adams, 1996). In an analogy, improve the living conditions of human slaves can be considered a social improvement, but never a paradigm break, as this would be the end of slavery<sup>6</sup>. From this perspective, environmental accounting is presented as mitigating (softening) of the problem. However, mitigation as solution never treat any changes in paradigms.

The objectification and exploitation processes, removing intrinsic characteristics of the phenomenon, treating them as thing, opens up a wide range to spread distortions towards a goal, a result to be achieved. On this way, another example about social and environmental aspects in accounting came from the Second World War. The number of every Jew in the Holocaust shows the coldness of the number to treat the human, turning into a serial number by International Business Machines (IBM), the Nazi state was able to control and account for much better lives and their deaths in the concentration camps (Lippman & Wilson, 2007). For

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<sup>5</sup> These two themes were chosen only as an example of the influence of positivism in accounting. It should be understood that these examples are exhaustive.

<sup>6</sup> To a deep analysis about environmental accounting under critical perspective, see Gray, Owen and Adams (1996)

bureaucrats, Germany was not killing 100 Jews, but eliminating 100 numbers, which were a cost to the state and brought problems to it<sup>7</sup>. Kill a number is easier than kill a man<sup>8</sup>.

By not question some paradigms in accounting, some questions are drowned out. In *Vernunft* reason, we should question things such as: what occurs in the backstage of the choice of some basis and the rejection of others? What are the interests and implications (well beyond those economic) behind the policies, rules and laws that affect the accounting? Who wins with these choices? Who loses? Who benefits from the mistaken idea of fairness of accounting data? Who harms? Whom accounting serves? Whom am I serving? I want to serve this? What are the ethical, political and social implications on methodology/data found? As these data bind, alter, affect, they reproduce 'external' context to this data?

This way, the attempting to progressive rationalization of all, as understood and practiced in our civilization, in search of an ideological concept of "progress" kills the substance of reason. This limited reason puts a greater priority order the ends and not the means, a purely operative reason, trying to achieve results (by inference, deduction and classification) by procedures more or less considered indubitable and presumed self explanatory.

In this range thinking, Ribeiro Filho et al. (2009) state, accounting, included in the group of social sciences, require a separate type, distinct from those that drive the natural sciences. Accounting phenomena can only be characterized by first there is a prior social definition of the concepts, models and metrics. Basic accounting phenomena such as the occurrence of assets, liabilities, revenues and expenses can only be discovered and analyzed it before there is any guideline set by people.

“Reason has never really directed social reality, but now reason has been so thoroughly purged of any specific trend or preference that it has finally renounced even the task of passing judgment on man's actions and way of life” (Horkheimer, 2004, p. 7). The instrumental reason "naturalizes" the historical context, the dominant power relations, transforming the rationality technical tool for adaptation to methodologies, contexts. Conforming "scientist" to reality. The role of criticizing why we are so we do so, to do differently is considered inappropriate behavior and even not rational. In this way, the concept of reason who needs being recuperated, according Horkheimer (2004, p. 7) is “when the idea of reason was conceived, it was intended to achieve more than the mere regulation of the relation between means and ends: it was regarded as the instrument for understanding the ends, for determining them”.

It is wrong, in the critical perspective by Horkheimer, believe that such concepts, metrics and models present in accounting can be consequences of an objective, irrefutable reality. All existing structures in accounting (doctrines, rules, policies and procedures) exist only because they were designed by people who put all their emotional, educational, political and historical when designed the parameters of accounting. Thus, neutrality and impartiality act as dominant ideology, not as truth.

This view would make us reflect, e.g. on the accounting of tobacco and agrochemical companies. Where they differ from the accounts produced by the Nazi IBM on the Jewish extermination? Is it ethical to produce this accounting? Thus, the following reflections fits: what the effects of dehumanization of reason and complex thinking? Who proves that accounting knowledge is true? Do you need to be true that knowledge? Who said that their assumptions are true? Not because it is dominant view that it is correct, otherwise it would be tautology<sup>9</sup>.

It is important, therefore, to bring the theoretical debate on accounting the subjective view of reality that must be understood by Horkheimer as *Vernunft*. Through Dialectical

<sup>7</sup> To a deep analysis about accounting in Nazi state, see Lippman and Wilson (2007).

<sup>8</sup> Similarly the treatment of soldiers. Let the Jews hungry in train travel. When they opened the doors of the trains threw food on the floor, the Jews hungry ate the ground, and the officers showed the German soldiers who were not actually men, but almost an animality. This objectification facilitated treat Jews as things and promote and legitimize all manner of atrocity.

<sup>9</sup> Tautology in the sense of analytic and redundant proposition that is always true. Its idea is its sustention, its sustention is its idea.

Reason, which recognizes the staging of events and historical factors inherent to them. It is also necessary to clarify the arrival at the result as a perspective, a random possibility, not as absolute truth, since the *Vernunft* states that multiple arrays give rise to accounting numbers. This way we can question some paradigms, such as the validity and fairness of accounting data, briefly discussed here.

## 5. CLOSING COMMENTS

This article aimed to add to critical debate in accounting some Horkheimer's arguments that counter the positivist view dominant that accounting is derived from empirical data (so unquestioned) appearing an objective reality. Positivists reduce the procedures applied science in physics and its derivations; They deny the name of science to all theoretical efforts that do not match what they extracted from the physical as legitimate methods. How is it possible to correctly determine what can be termed science and truth, when this determination presupposes the methods by which scientific truth is obtained In other words: by refusing to verify its own principle - according to which any statement that is not verified has sense – guilty of *petitio principii* are made: presuppose what must be demonstrated.

We do not intend to propose in this article any ways to change the current paradigm in accounting. On the contrary, supported in Adorno (2009) displays as negative dialectics, this article aims solely to foster and mature debate, supported the substantial reason (*Vernunft*).

There is no pretense of following instrumental idea (*Verstand*) that the knowledge generated must be operational and have market value to be exalted (or who is not a suspect or even useless). Paraphrasing Matos (1989), it critical perspective only recognize the chaos behind the apparent order of things, yet not worry about the impossibility of reconciliation. A negative dialectic does not give the rules; there is no play: “the author as much as he can, put the cards on the table; which is by no means the same thing as playing”.

On the other hand, we intend to allow the researcher to decide. Discover the foundation and purpose of their knowledge. Past necessary for an autonomous and truly scientific knowledge. Only from the construction of this autonomy to the researcher a critical resolution of the data would be possible. The truth appears with a totally subjugated scientist methodology is the unquestioned principles translates into belief, false knowledge to be limited, while the exposed contexts and precariousness of a prospective criticism appears as solid data from the analysis of contexts. There would therefore be a relative knowledge. As opposed to positivist objectivity, but the possible knowledge from rich and complex analysis of the phenomenon of contexts. Soon, it would not be accurate or relative but contextual historical critical approach is probabilistically that best suits the connections of the phenomenon

As a result, by adding the *vernunft* perspective in accounting research some interesting insights and interpretation will be provided from future research. In so doing, we expect a special attention to epistemological position which improve the data validation.

Horkheimer (1972, p. 51) synthesizes this idea about the debate proposed stating that  
 for the historical understanding of a given theory we must grasp the interplay of both aspects, the human and the extrahuman, the individual and the classifiable, the methodological and the substantive, and not separate any of these, as realities, from the others. There is no general formula for handling the interaction of the forces which must be taken into account in particular theories; the formula must be searched out in each case.

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