About Hannah Arendt: ethics and rationality in contemporary society

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Abstract: This work aims to reflect on how to overcome obstacles that confront the ability to think rationally: the intellectual capacity involving the reflexive abstraction and its elaboration in the corresponding argument. It begins with the statement that if it is observed, on the one hand, an increase in the verbalized colloquial thought logical complexity, on the other hand it is noticed a lack of competence in the intellectual analytic operations of the rational processes underlying it. In other words, nurtured by the knowledge processes and products the abstract and deductive thinking generated from the scientific-technical field, the contemporary rationality would communicate with society in a neutralized way under the form of social representation which is, therefore, tinged with ideological contributions, uncritical irrationalities and/or rationalizations. Thus, this work intends to reflect on how to subsidize overcoming obstacles to the entire exercise of universal reason and/or of hermeneutic rationality, equipping counterpoints to impediments created by ignorance or by negativity or else by dogmatic thinking cores.

Keywords: rationality, reflexive abstraction, logical mathematics**,** scientific knowledge, ethics.

> "The potency of the intellectual instrument is understood as so great that the great scientific creators (Einstein, Dirac) begin to believe, in their hearts, that nature can be understood. It could be said that one needs to simply put it to the test of rational construction, and this already constitutes a triumph of reason."
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> Jean Ullmo[1]

> "Doxa is the voice of the natural. That which is as if it was nothing. It is Medusa, who petrifies those who look at her."
>
> Roland Barthes[2]

In commenting on the film by Margarethe Von Trotta about Hannah Arendt[3], Telles (2013) says:

> Instead of emotionally taking sides against Eichmann, Arendt opted to continue thinking rationally, showing the incongruities and inconsistencies of the trial itself. Facing the scary Nazism frenzy, she understood that, more than ever, it was necessary to use the ability to think, reason, reflect. The issue of thought, of the use of rationality to fight irrationality, is central in her positioning (p. C12).

And this author concludes that Hannah Arendt by Von Trotta is an adventure film, the greatest of adventures – the intellectual one. "It shows the risks and adventures facing those who dare to think and bravely refuse to give up the ability to reflect and analyze, the only instruments against the savagery that lurks in the darker recesses of us all" (p. C12).

For Telles, Von Trotta's film would be "the greatest of adventures – the intellectual one." In fact, the protagonist of his narrative is Hannah Arendt, since in her argument, she leads in first person an unusual and risky experience, which would generate results in the realm of the unimaginable. We refer to the analyses published by her (Arendt, 1963-1964/2014), identifying and reporting implicit contradictions and ambiguities in the process of Eichmann's trial in Jerusalem, showing the strata subjacent to him which are not clarified and/or clarifying, contaminating the debate on the question of the Jewish Holocaust (1939-1945).

Affirming the failure of the Court of Jerusalem, Arendt (1963-1964) assigns it to the lack of affirmation of three essential items: the problem of the predefinition of justice in the court of victors, a valid definition of "crime against humanity" and a clear recognition of the new kind of criminal who commits this crime, concluding that "to

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1 "On voit la puissance de l'instrument intellectuel, puissance si grande que les grandes créateurs scientifiques (Einstein, Dirac) recommencent à croire au fond d'eux mêmes que la nature peut être devinée. Disons du moins qu'il suffit de la mettre à l'epreuve de la construction rationelle, et cela constitue dèjá un triomphe de la raison. (p. 704)."

2 Text taken from the catalogue of the exhibition entitled "Roland Barthes", about the work of the author, held at the Centre Georges Pompidou, Paris, from November 27th 2002 to March 10th 2003.

3 The film discusses the coverage of the trial of Adolf Eichmann in Israel, made by Hannah Arendt for The New Yorker. In this essay she describes her impressions and defends the thesis that not everyone who practiced war crimes during Nazism were monsters. The American and Jewish society turned against her, but she kept her positions (Estado de São Paulo Newspaper, Section 2, 8/24/2013).

talk in colloquial terms (about Eichmann), he just never realized what he was doing" (p. 310). She expresses in this way the interpretation of what was seized of the concept of "banality of evil" produced by the junction between destructive forces and the bureaucratization of public life, a Medusa who petrifies those who look at her like images in parallel mirrors, according to the words of Roland Barthes transcribed in the epigraph of this essay.

However, in extension, the understanding of the implications of Arendt's narrative goes beyond the strictly intellectual dimension to penetrate the complex ethical-political plan related to the disciplinarian criteria of the extroversion of reflections, of the transparency of the communication of the results of rational thought to the social body, pointing out that the risks of reflecting and analyzing might not manifest themselves so intensely, if there is not, on the thinker's part, a clarifying commitment directed at the crowds. Such commitment not only shows itself in superlative form in the mentioned study by Arendt, as it consists in its own narrative. In the writing of *Eichmann in Jerusalem*, Arendt proposes, with generosity, erudition and humility, that the reader becomes part of her thinking. Maybe the impact of the scandal caused by the occasion of the publication of the study was due to that, because it constitutes itself at the same time in political journalism and philosophical reflection.

This essay aims to reflect on how to overcome these obstacles that are put before the ability to think rationally, the intellectual capacity that involves reflective abstraction and its elaboration in a corresponding argument. It also aims to reflect on conditions that circumscribe and limit its clarified and clarifying propagation to the social body, as an open critique to the uninterrupted growth of the crowds participant in it. It is based on the perception that, if it is possible to observe, on one hand, an increase in the logic complexity of colloquial verbalized thinking, on the other, there is an absence of competence in intellectual operations of analysis of rational processes subjacent to it. That is, contemporary rationality, fueled by the processes and products of knowledge generated through the abstract and deductive thinking of the technical-scientific field, would communicate with society in a naturalized way, in the form of social representation (Moscovici, 1961) and, therefore, laden with ideological contributions of irrationalities and/or acritical rationalizations. The aim is to reflect, then, about how to subsidize the overcoming of obstacles to the universalizing of the full exercise of reason and/or of the hermeneutics of rationality, by instrumenting counterpoints to the impediments engendered by ignorance (Caorsi, 1994) or by negativity (Freud, 1921/1996) or by the dogmatic cores of thought (Habermas, 1983/1989)[4].

In previous studies (Abbud, 1990, 2010), the question of preceptorial interventions which emulated reflexive acts in situations of formal education were discussed. Would they be possible? How to produce them? Such inquiries were instigated, at the time, by concerns arising from the practice of teaching by the author, persisting until today, manifesting themselves among scholars and educators, subscribing themselves in increasingly larger fields of meanings and complexity and challenging in the pursuing of the investigative search for clarification about them. Its focus, the problem of the transmission of conditions which implicate in scientific-theoretical knowledge to promote the protagonist exercise of critical intellectual thought.

Science as an institution combines functions of reason and experience in the constitution of knowledge. Knowledge, thus, said to be scientific. Its method consists in intellectual critique, the logical method of modern science to be applied in the analysis of events, facts and phenomena. The logical method of criticism of truths laid down about the physical and social world and its epistemological and historical-cultural developments (Tassara, 2003). Would it be possible to emulate it, encourage its emergence, teach it, propitiate its transcendence in the generation of new forms of knowledge? To this end, teaching practice has been assuming that, first of all, it would be necessary to configure a *zeitgeist* of scientific creation, because to teach is to transmit experiences, to communicate the social links of which we are depositories. And, when it comes to complex experiments like the one being discussed, that transmission would need to support itself on processes of communication structured over planned sequences of information, organized according to logical-psychological criteria and epistemological-theoretical foundations.

It follows, then, that in the process of scientific creation it is necessary to articulate, as outlining conditions of the search for solutions to problems under investigation, of creative invention, implications and/or inspirations of logical-mathematical formalism and restrictions imposed by the data of reality derived from experimentation and/or observation. Soon, the nature of this knowledge will also be logical-mathematical because it sustains itself in logical arguments, inside of which it constitutes itself in solution/invention, it structures itself and is structured over necessary conclusions. Deepening the understanding of this process of creation leads therefore to the decoupage of method, to which it is proposed proceeding from the writings of Ettore Majorana[5] in his notes for the inaugural class of the course of Quantum Mechanics which he gave at the University of Naples in January 13th 1938 (quoted by Recami, 1989).

Starting his class discussing about classical Physics, from Galileo and Newton to the early 20th century, Majorana describes it as inherently committed to the mechanistic conception of nature, a conception which,

4 In the words of this author, it is the "social world of legitimately regulated interpersonal relationships – a world that is naively habituated and recognized without problems" (Habermas, 1983, p. 156). And, in an observation made by Prof. Dr. Lafayette de Moares at the personal meeting with the researchers, he pointed out the fact that "dogmatic core of thought" should be translated from German as "dogmatic core of the thinker" (meeting in November 2014).

5 Ettore Majorana (1906-1938), Italian physicist who disappeared at the end of the thirties, had an important production in the field of particle physics, having worked at Via Panisperna (Rome) which has as symbolic figure Enrico Fermi.

from Physics, extended itself not only to the related sciences, but also to Biology and the Social Sciences, influencing all scientific thinking and part of contemporary philosophical thought, though, according to this author, the usefulness of the logical-mathematical method – that would be its only valid justificative – would have always remained exclusively circumscribed to Physics.

This conception of nature supports itself, for him, substantially on two pillars: the objective and independent existence of matter and physical determinism, both derived from common experience, widespread and considered universal, subsequently. The objectivity of matter would be a notion of common experience, which teaches that material objects have an existence in themselves, independently of the fact that they fall or not under our observation. Classic Mathematical Physics annexed to this elementary fact the claim that a mental representation of this objective world is possible, completely appropriate to its reality, and that this mental representation can consist in the knowledge of a series of numeric quantities sufficient to determine, at every point in space and in time, the state of the physical universe.

Conversely, according to Majorana, determinism would be only partly a notion of common experience. Next to facts that occur independently of the observer, there would be others – and not only in the biological world, but also in the social world – for which the occurrence is in the very least not very evident. Determinism, while universal principle of science, could therefore be formulated only as generalization of the laws governing the celestial mechanics – the future configuration of the planetary system can be predicted by calculation, provided that its initial state is known, that is, the compilation of positions and velocities of the bodies that make up our planetary system.

Bachelard (1940/2009), in turn, proposes a possible dialogue between sensible reason and rational experience, intermediate processes that would be propitiators of a projective investigatory vision of invention and creation, which Bergson (1907/2010) would name "creative evolution". The construction of potential fields of promotion of inventive thinking processes and of conduction of the subjects in challenging and autonomous paths of thought has been a traditional object of study, which can be represented through the historical evolution of the main ideas formulated by thinkers, scientists and educators. The question that is being made, then, would have as a starting point how to articulate procedures capable of interacting with the forces of dispersion of thought subjacent to the polyphony of information derived from the ubiquity of experiences and social practices experienced by individuals and contemporary collectives and the summaries required by intellectual processes which should arrange them into systems. This essay contextualizes a panorama in which possible answers to such comprehensive and complex questions insert themselves, that is: how, from an analysis of the common sense of living spaces, one can get to reflect rationally, ratiocinating and subsidizing the way out of irrational or unreasonable situations (Santos, 2002), getting to the formulation of original and rationally competent interpretations to the confrontation of difficulties and proposing the forwarding of solutions.

This search, as already mentioned, would be supported by theoretical theses defended by scholars of relations between logic, language and thought, applying them in the analysis of cognitive processes relating to the ability of abstraction and deduction, necessary, though not sufficient, for a competent argumentation and an autonomous exercise of the intellectual method of criticism. How to provide them?

Firstly, it is based on considerations based on the theoretical contribution offered by Hegenberg (1987) that, in writing about contemporary rationality, the original thesis that implied the hypothesis that there would be an interaction between logical processes implicit in arguments that are subjected to the development of reasoning over colloquial contemporary issues and to the development of logical-mathematical instruments arising from the advance of scientific knowledge in historical modernity is defended. That is, for this author, logical-mathematical developments would influence the knowledge of the common sense, through the propagation of logical implications derived from the advance of logical-mathematical knowledge, which would begin to be applied in secular reasoning. However, in this essay it is considered that this propagation has not been presenting itself as a formal instrument, but only, recurrently, as content, in its semantic dimension.

On the other hand, the theories formulated by Piaget (1967) and by Piaget and Greco (1974) provide information on relationships between logic, language and thought, which also limit the search for answers to questions about, after all, what would be rational knowledge. What from it would be derived from the subject and what would be derived from the object, in the act configured as such of knowing? And from these assertions, others would follow that are object of answers offered, mediating the formulation of the psychogenetic method. That is, the one of how the transit between hierarchies of complexity in characterized states of intellectual operations could be explained, aiming at their generalization for the autonomous production of new valid knowledge.

Assuming a piagetian perspective, Ramozzi-Chiarottino (1973) states that hypothetical-deductive or formal thinking would take place through combinations understood as classifications and free relations, coming to mean the liberation of thought in relation to the object. As a result, in facing a problem-situation, the latter author argues that rather than these combinations, what would be significative is the emergence of the possibility of combining ideas and hypotheses in the form of affirmations and negations and of using propositional operations, such as implication (if... then), disjunction (or...), exclusion (either... or), or incompatibility, deductive conclusions being thus configured. That is, from certain hypothetical assumptions, reality no longer would be seen under an absolute view: it would be a view relativized through an abstraction

of abstraction, a meta-abstraction or a reflective abstraction. Reality would start to be experienced in the light of possibilities, supported by abstractions and sustaining deductions.

This way, it can be hypothesized that analyses of the common sense of living spaces offer information on logical dimensions, implied in the relations between language and thought inherent to it, and may provide an in-depth understanding of the thought manifested in them, from which a proper engineering of emulating procedures could be structured, contributing to the emergence of the intellectual capacity of competent reasoning. This would be a first necessary condition for a scientific substantiation of strategic interventions of transmission of the respective social links, aimed at the increase of analytical-argumentative ability subjacent to intellectual activity, as an universal form of communicative competence in contemporary globalized society or, in the words of Telles (2013), to provide "the greatest of adventures, the intellectual one."

In summary, these reflections are being grounded in the following theses and corollaries:

1. The operation of theoretical-scientific thought, being conditioned by propositional logic to which it is subjected, implies the ability to intellectually operate reflective abstraction (Piaget, 1967; Piaget & Greco, 1974; Chiarottino, 1973);

2. The logical-mathematical development subjacent to the evolution of scientific knowledge in historical modernity has been communicating with social life, externalizing itself in the forms of contemporary colloquial reasoning (Hegenberg, 1987);

3. This communication does not imply formal awareness of the corresponding logical structures operated in reasoning, presenting itself, repeatedly, as content, i.e. as semantics and therefore as ideology; it should be noted that a state of consciousness is being considered, as defined by Piaget (1968), as a state of signification.

And, derived from these theoretical theses, the following corollaries:

4. The logical-language-thought dimensions manifest themselves in an inseparable manner in the different linguistic substrates, being subjacent in messages, speeches, arguments and narratives.

5. Modern thought, characteristic of contemporary rationality, directs itself to the future, constituting itself in ways of thinking of everyday life, conditioning understandings, explanations and justifications that substantiate solutions to theoretical-practical issues, as well as strategies of coping with them.

This study of contemporary rationality will be delimited as having as origin the civilizing process originating in Ancient Greece, a dynamic panorama of the context of transformation of the meaning of the term "logos", or reason, being traced. The words of Windelband (1970) illustrate the property of this perspective, when this author claims to be the history of philosophy a narrative of the process of transformation of the world view and values of European humanity, in scientific concepts.

In another order of considerations, Umberto Eco (2001, 1988) punctuates clashes and differentiations subjacent to the transformation of the meaning of the term "reason", which he analyses with reference to the term "irrationalism", offering bases for an organization of his study.

Firstly, Umberto Eco (1988) articulates difficulties in the definition of the term "irrationalism", stating that it is always done in contraposition to a historical model characteristic of another way of thinking, said to be rational. Therefore, the author reflects on the need to conceptualize reason, having as reference the conditioning ways of thinking of determined sociocultural moment, considering it as a central fulcrum of rationalist schools of thought in the context of contemporary rationality.

Secondly, in trying to establish differences of meaning between "rationalism" and "irrationalism", considered by the author as two ways to decipher the world as text, he resorts to the argument that, both to Plato as for Aristotle, knowing meant searching for the causes, what brings back the theme of knowledge. Would these causes be evident in the object, that is, in attentive looks to its reality, enabling analyses leading to conceptual inferences, which would be the determinants of success in this decryption? In other words, how to abstract them, and also, would a deciphering abstraction result in legitimate knowledge?

Thirdly, still according to Eco, to define the world in causal terms it would be needed to establish a linear chain, supported by the principles of identity (*a* is equal *a*), of non-contradiction (it is impossible to be *a* and to not be *a* the same time) and of the excluded middle (either *a* is *a* or it is not *a*, a third possibility does not exist). The author, then, would be referring to the "modus ponens", declaring as his "belief" that it would be the primordial pillar of rationality, which would lead to the beginnings of Aristotelian logic.

However, throughout the evolution of scientific and logical-mathematical knowledge, as referenced by Hegenberg (1987), there have been systematic progresses in Aristotelian logic, largely under the influence of modern mathematical analysis, bringing implications about the science of the need for conclusions – Logic – produced by the progress of the science of necessary conclusions – Mathematics.

The analysis offered by Hegenberg on the transformation of this way of "thinking", based on the Aristotelian

view until the construction of symbolic-mathematical logic, leads to inferences about the production of new forms of thinking, suggesting there is a dynamic process of what would be guided and expanded in its transmission and learning by the social body. And so, other historically conditioned ways of thinking would be generated, resulting in the growth of logical-discursive competence, or of competent reasoning.

Hegenberg resumes the beginning of the science of Logic in Greece, with Aristotle, where the controversy generated by disputes between the theory of Parmenides and Zeno's famous arguments – which denied the reality of movement making an improper use of the principle of non-contradiction – contributed to highlight, in the arguments, the deductive powers essential to the necessary acceptance of demonstrations.

On the other hand, Socrates defended the value of concepts and the need to define them with accuracy. Through the process of maieutics, he drove his listeners to the analysis of terms under various perspectives, using procedures that instigated the search for answers to questions, seeking to lead them to the formulating of hypothesis with the intention that they noticed relations between causes and effects involved in beliefs, leading to the search and to the enhancement of intellectual reflective acts.

Socrates was the initiator of the analysis of semantic processes, in the sense of considering which words would not represent the totality of their meaning, being understood as symbolic elaborations made by human beings. The way to organize and structure them would be, in this perspective, in line with the principles of support, acceptability and consistency of the objective and subjective representations in light of the data of reality.

A typical Socratic procedure was the use of "parables" – or examples taken from arts and crafts – to establish, in analogy to particular cases, a law or a universal principle: that is, that which for Aristotle was a Socratic induction of the particular to the universal.

Thus, in the history of Western thought, one can consider Socrates as the introducer of the idea that the activity that has knowledge as its purpose must conform to rules, as in any other form of art. The Platonic dialogues show that, for Socrates, it would be necessary relating the validity of a knowledge to the way it is obtained to legitimize it — an idea that became the essence of any position that recognizes the prominent importance of the method to the legitimate criticism of the corresponding knowledge.

Socratic considerations would induce principles sustaining an accurate analysis on the process of formation of a more elaborate discursive competence, basing it on the clarity of the concepts contained in it, what would not do without an association to a consistent reasoning ability. To this end, Aristotelian logic offered elements for the grounding of argumentative delivery, subsidizing it.

The complex construction of the Aristotelian metaphysics and physics brought, also subjacent, a method that Aristotle presents in his logic studies. In these, after introductory considerations in which he analyzes the terms and propositions, Aristotle starts to study the syllogistic structure common to all consistent and formally valid reasoning, the requirements for a reasoning, besides being formally correct, to also be true and the characteristics of the formally correct reasoning, going over, for example, the reason why the premises of syllogisms are not certain and would not meet all the requirements of a scientific demonstration. From these considerations, he provides the most relevant result of his logic, which was the doctrine of syllogisms. Aristotle considered his doctrine of syllogisms based on any valid inference, defining and classifying all valid forms of syllogism, distinguishing, also, the real syllogisms from the purely correct ones. For him, in fact, a correct syllogism would reach the truth if, and only if, the truth of the premises was proven. To demonstrate the truth of the premises, one could then resort to other syllogisms, but this process could not be reproduced ad infinitum. However, he also stated that there would be supreme principles evident in themselves, which would not need demonstration to be accepted: they would be the principles of identity, of non-contradiction and of the excluded middle. They would be principles that would impose themselves for logic necessity, that is, they would be the basis of necessary knowledge.

This leads back to the *modus ponens* presented by Eco, being possible to conclude that Aristotle was responsible for the true birth of Logic, of the science of reasoning, of arguments, of demonstrations and of the need determined by them in the knowledge of truth. Thought would be organized with the purpose of establishing, precisely, what could be considered as affirmation. For Aristotle, these claims are of the subject-predicate order, there being a fixed notion of truth for these derivations: if the predicate suits the subject or not, respectively, the sentence is true or false. Thus, this leads back to Socrates, because, for the understanding of a concept, its meaning being clear is necessary, without which the attribution of truth or falseness to the affirmations would be impaired.

However, the Aristotelian logic remained intact until the late 17th century and early 18th century, when the advancement of mathematical instruments, derived from the needs imposed by the evolution of scientific knowledge – notably by the demands of the application of the method in the theoretical-empirical study of the movement – made necessary the revision of logic, expanding it until its structuring under the nomenclature of logical-mathematics, or, symbolic-logic, determining its subsequent historical open expansion, as an autonomous field of knowledge.

This process took place throughout the 19th century under controversies and debates about relations between the fields of Logic and Mathematics, conducted under the leadership of eminent mathematicians and logicians, including Frege, Weierstrass, Gödel, Gauss, Whitehead, Bertrand Russell, Boole and others, evolving in such a way as to make this last author justify the

necessity of the revision of logic, stating that it no longer would be suitable for the way of thinking, especially in mathematics (quoted by Hegenberg, 1987). Thus emerges a new setting and in it a new direction related to the relationship between logic, semantics and syntax, expressed in a competent discursive capacity.

In this new setting, still according to Hegenberg, signaled by the work of Bertrand Russell that offers the synthesis of a new revision of Logic, associating it to Math and employing symbolisms and representations, Mathematical Logic starts to evolve allowing algebraic operations.

The conditions of truth broadened being expressed today both through propositional calculus (if - so; and - or; if and only if), as through predicate calculus (constants, variables, universal and existential quantifiers), bringing as a result the incorporation also of predicate calculus with equality, that is, the possibility of assigning different names to a same object. It is inaugurated thus the logical-analytical approach, which allowed the tracing of paths for the study of relationships between language and reality, making inquiries about connections between words which organize sentences and reality. Subsequently, Tarski (1930/1991) says that it is precisely the need to establish conditions of truth that would make the intelligibility of the sentence possible, allowing the conclusion that a proposition is significative if, and only if, conditions of truth are established for it.

Recently, having been axiomatized unorthodox or paraconsistent logical systems on the basis of which it is possible to verify the metamorphoses operated on the dynamics of reasoning in search of competent and logically orthodox demonstrations, a new field for the study of the pari passu discursive formation opens with logical-mathematical "complexification" and the requirements for its incorporation into processes of reasoning applied in the demonstration of truths associated with statements or with their negation (Da Costa , 1991).

However, returning to the hypothesis of rationality of Hegenberg, in contemporary rationality there would be an interaction between argumentative forms, as the ones implied in the development of reasoning, and the evolution of scientific knowledge, or logical-mathematical knowledge, influencing the knowledge of common sense not only in its semantic dimension, in its conceptual contents, but through the advancement of the instruments which support expanded forms of operations of logical-mathematical implications.

If this panorama is traced here, configuring descriptions, explanations and interpretations about what would be contemporary rationality, it says nothing about how to propitiate its proper exercise. Would operating the modus ponens be enough? The critical needs interposed by the logical method of modern science would depend on which fields of knowledge? How would the emergence of abstraction and deduction capacities be promoted, applying them appropriately in consistent demonstrations, identifying incoherences, inconsistencies and contradictions in the critical construction of conclusions which affirm themselves over logic necessity, applying them in original arguments formulated by their defenders? After all, from what was said, how can rationality be defined?

> Rationality refers to logical and epistemological processes in which, from certain premises and, through arguing, legitimate consequences are derived from, from a formal point of view; the logical relationship implies that, if a claim is accepted, its premises are being accepted ipso facto. Rationality requires precisely making transparent this logic derivation through arguing, what makes criticism possible, be it from a formal point of view, or from the point of view of the contents of the statement in question. Therefore, criticism and rationality are inseparable components of the same epistemological process. (Tassara & Ardans, 2013, p. 285)

Thus, another operational requirement is evidenced. The ability to competently master the geometric method, applying it to epistemological criticism, what leads us to the contribution of Euclid, in systematizing the axiomatic method, in his study *Elements.* This method consists in assuming a limited number of definitions about what would be primitive beings of the system of thought, an assemblage of axioms or postulates that are statements related to the primitive beings, some common notions being constituted of statements of evident universal character, demonstrating, from them, true propositions or theorems, through a sequence of deductions that are based on primitive propositions and also on theorems previously demonstrated.

That said, it is possible to conclude that there would be necessary conditions for the exercise of competent argumentative reasoning that may be transmitted: what is the geometric method, how to operate it; what is the doctrine of syllogisms, how to process them; what are the analytical-discursive elements derived from logical-mathematical advancement and what do they imply and others. However, always from applications previously elaborated by other subjects of thought. To generalize such competence, however, the abstraction to compose the demanding axiomatization is necessary. How to emulate it? Without abstractions, there is no possibility of new demonstrations. Only the naturalized reproduction of logical-mathematical implications, that is, the latter become content, semantics and therefore social representations (Moscovici, 1961), strengthening covert ideologies.

To ensure this denaturalization, a meta-abstraction would be necessary, which would mean the understanding of form-content, syntax-semantics, logic-language-thought relationships, leading them to the possibility of methodical structuring of demonstration, susceptible to learning, although dependent on a sophisticated communication process, but still possible.

As for meta-abstraction, it is unknown how to encourage it. The corresponding formation processes have

been supporting each other in the application of pedagogies based on models of thought/thinkers and of structuring paradigms of methods. However, the intermingling between ideas, analyses, methods and theories – as outlined throughout the historic circuit presented here of the evolution of theoretical-scientific knowledge – strongly strengthens the theses defended by Genetic Epistemology (Piaget, 1967) as defining of a necessary condition for the configuration of competent, authentic and original thought, in the theoretical-scientific standard of its production – the necessary philological hermeneutics of the process of historical construction of logical-mathematical knowledge.

It remains open for interpretation, beyond the issue of meta-abstraction, the topic that opens this essay, regarding the critical intellectual adventure starring Hannah Arendt. How would it happen, which would be the "darkest recesses of us all" (Telles, 2013) that would prevent it? Would these impediments to enlightenment produced by ignorance, identity weaknesses, psychological negativities, dogmatic cores supporters of prejudices and authoritarian biases, be the obstacles to the competent, ethical and free use of rationality? Or, would this be a return to the problem pointed out by Aristotle in his doctrine of syllogisms about truths that need no demonstration, that would impose themselves for their logic necessity, or to the exercise of the modus ponens, also considered by Eco as essential for rational operation as basis of what he claims to be "his belief in the doctrine of rationalism"?

However, as already mentioned, for Tassara and Ardans (2013), criticism and rationality would be inseparable components of the same epistemological process. Thus, under such assumption, the logical questioning of truths consists itself in rationality, and its exercise would imply the commitment to unconditional engagement of the subject of the knowledge in the rational process of deconstruction of established truths, and construction of others. That is, the criticism of semantics that Aristotle, when he defines truth or falseness of statements, considers to be arbitrary, due to judgments of conveniences based on conventions of shared languages. This would therefore be the ethics of rationality: the relentless pursuit of the logic criticism of the semantic arbitrariness demanding a meta-reflective abstraction.

That said, the question of the social extraversion of the results of criticism, of which the adverse political consequences are discussed by Von Trotta in his film, having had violently reached Hannah Arendt, still remains. It is evidenced thus another extract from the ethics of rationality, beyond logical criticism itself: the communication of the results of the developed critical rational process, undisturbed communication, as Habermas (1990)[6] calls it.

Under such configuration, it can be affirmed that *Eichmann in Jerusalem* fulfills in a paroxysmal way the requirements of the ethics of rationality as exposed, pointing at and questioning the inaccurate fluidity with which terms and arguments were used to describe, explain and interpret facts, polluting meanings and criteria and, thus, contaminating a priori conclusions, many of which were tautologically supported by the starting premises. We believe that this finding can be understood as a determinant of the appointed failure of the trial court, which we synthetized as a fallacious ghost omnipresent at the trial, a case-by-case indistinction between law and justice, permeating the entire course of the process. Here, perhaps, it would be pertinent to transcribe the words of Eichmann as summarizing of this perception: "I am not the monster that I am made out to be. I am the victim of an error of judgment (p. 269)." And Arendt continues: "... confirmed what Servatius [Eichmann's lawyer] had said: 'His conviction that he had to suffer for the acts of others was deep'"(pp. 269-270). Would his words indicate that the trial would have had mobilized him reflexively?

Under such perspective, the conclusion that the necessary condition for the competent, ethical and free use of rationality is limited to repertoires dependent on specific socializing procedures, supporters of logical criticism itself, seems to be correct. However, in our view, the impediments to this usage located in "the darkest recesses of us all" (Telles, 2013) would not act directly on its exercise. They may relate to the motivations and experiences prior and/or posterior to them, frustrating their development as competence or as an instrument of action. They surely limit its extroversion, for this decision lies within objective and subjective frames of reference of the ideal of the common good, subject to multiple influences, originated from the biographical specificities of the thinker. The factors which trigger meta-reflective abstraction remain unknown: after all, what was the fuel of Hannah Arendt's reflections, of the trajectory of her ideas, of the associations she made between facts and interpretations, of her points of view? Why would she have chosen to enlighten crowds with her reflective abstractions, opposing herself, with facts and arguments, to a binary judgment on the Jewish Holocaust? Maybe it would be pertinent here appealing to the not yet concluded concept of "undecidability", elaborated by Derrida in collaboration with Gödel (Nascimento, 2014), to represent the more than 300 pages written by her as demonstration illustrated by the formulation of the concept of "banality of evil".

We conclude this essay depicting it metaphorically with the figure of the ouroboros, fueling a transcendent heuristics about what would be logical necessity, or logical-mathematical knowledge, what would be its ethics and how to put it in motion from the perspective of the common good, resuming the Aristotelic starting point in his *Ethics to Nicomachean*, in the theme under discussion.

6 "I prefer to speak of the idea of undisturbed intersubjectivity. This idea can be obtained from the analysis of conditions necessary to general understanding – it characterizes the manifestation of symmetrical conditions of the mutual and free recognition of subjects who act communicatively among themselves" (Habermas, 1990, p. 106).

Sobre Hannah Arendt: ética e racionalidade na sociedade contemporânea

Resumo: Este ensaio visa refletir sobre como superar obstáculos que se antepõem à capacidade de pensar de forma racional, a capacidade intelectual que envolve a abstração reflexiva e sua elaboração em correspondente argumentação. Parte da constatação de que, se se observa, de um lado, um crescimento na complexidade lógica do pensamento coloquial verbalizado, de outro, percebe-se uma ausência de competência nas operações intelectuais de análise dos processos racionais a ele subjacentes. Ou seja, a racionalidade contemporânea, alimentada pelos processos e produtos de conhecimento gerados através do pensamento abstrato e dedutivo do campo técnico-científico, comunicar-se-ia com a sociedade de maneira naturalizada, sob forma de representação social e, portanto, eivada de aportes ideológicos, de irracionalidades e/ou racionalizações acríticas. Visa-se refletir, então, sobre como subsidiar a superação de obstáculos à universalização do pleno exercício da razão e/ou da hermenêutica da racionalidade, instrumentalizando contrapontos aos impedimentos gerados pela ignorância ou pelas negatividades ou pelos núcleos dogmáticos do pensamento.

Palavras-chave: racionalidade, abstração reflexiva, lógico-matemática, conhecimento científico, ética.

Sur Hannah Arendt: éthique et rationalité dans la société contemporaine

Résumé: Cet essai vise à réfléchir sur comment surmonter des obstacles qui s'opposent à la capacité de penser de façon rationnelle: la capacité intellectuelle qui implique l'abstraction réflexive et son élaboration en une correspondante argumentation. On part de la constatation que, si l'on observe, d'une part, la croissance dans la complexité logique de la pensée colloquiale verbalisée, d'autre part on s'aperçoit l'absence de compétence dans les opérations intellectuelles d'analyse des ses processus rationnels subjacents. À savoir, la rationalité contemporaine, alimentée par les processus et produits de connaissance engendrés à travers la pensée abstraite et déductive du domaine technico-scientifique, communiquerait avec la société de manière naturalisée, sous forme de représentation sociale et, donc, contaminée par des apports idéologiques, des irrationalités et/ou rationalisations acritiques. L'essai vise alors à réfléchir sur comment subventionner les obstacles à l'universalisation du plein exercice de la raison et/ou de l'herméneutique de la rationalité, et instrumentalise des contrepoints aux empêchements produits par l'ignorance, par les négativités ou par les noyaux dogmatiques de la pensée.

Mots-clés: rationalité, abstraction réflexive, logique mathématique, connaissance scientifique, éthique.

Sobre Hannah Arendt: ética y racionalidad en la sociedad contemporánea

Resumen: Este ensayo busca reflexionar sobre cómo superar obstáculos que se anteponen a la capacidad de pensar de forma racional, es decir, la capacidad intelectual que implica la abstracción reflexiva y su elaboración en correspondiente argumentación. Se parte de la constatación de que caso se observe, por un lado, un crecimiento en la complejidad lógica del pensamiento coloquial verbalizado, por otro, se percibe una ausencia de la competencia en las operaciones de análisis de los procesos racionales subyacentes. La racionalidad contemporánea, alimentada por los procesos y productos de conocimiento generados a través del pensamiento abstracto y deductivo del campo técnico-científico, se comunicaría con la sociedad de forma naturalizada, bajo la forma de representación social y, por lo tanto, sesgada de aportes ideológicos, irracionalidades y/o racionalizaciones acríticas. Por lo tanto, este texto busca reflexionar sobre cómo subsidiar la superación de obstáculos a la universalización del pleno ejercicio de la razón y/o de la hermenéutica de la racionalidad, instrumentalizando contrapuntos a los estorbos generados por la ignorancia, los negativismos o por los núcleos dogmáticos del pensamiento.

Palabras clave: racionalidad, abstracción reflexiva, lógica matemática, conocimiento científico, ética.

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Received: February 17, 2014
Revised: April 22, 2015
Approved: May 01,2015