

Antonio Fábio Medrado de Araújo\*, Liliane Lins-Kusterer\*\*, Nilo H. Neves dos Reis\*\*\*, Maria Susana Ciruzzi\*\*\*\*, Eduardo Martins Netto\*\*\*\*\*

## Jahr and Potter: Accidental Similarities?

### Summary

With the science of survival article and lately the book “bridge to the future” Potter became famous releasing the neologism “bioethics” and then known as the founder of bioethics. However, 43 years before, Jahr had proposed a similar idea in the article “Bio-ethics: reviewing the ethical relations of humans towards animals and plants (translated from German)”. We propose to correct the idea that Jahr is merely a precursor—and not a founder—of bioethics, here speculating the bridge bioethics of Rensselaer Potter as close similarity with Jahr’s thoughts. Following the “content analysis” method, a table was built to compare the theoretical schemes of Potter and Jahr, correlating by qualitative meta-analysis, each paragraph of Jahr’s base text (1927) with Potter’s analogous (1970). The similarity of the texts reveals that, in theory, Potter benefited from Jahrist utopia, imposing it a reductionist lineage. Potter expresses, therefore, an ethnological capture of jahrism.

**Keywords:** Potter, bridge bioethics, Jahr, bioethical imperative, similarity, content analysis.

## INTRODUCTION

Biochemist and researcher in oncology at the McArdle Laboratory, University of Wisconsin, van Rensselaer Potter was also concerned with the environmental

\* Postgraduate Program in Medicine and Health, Bahia Medical School, Federal University of Bahia, Brazil. ORCID ID: <https://orcid.org/0000-0003-1077-0255>.

\*\* Postgraduate Program in Medicine and Health, Bahia Medical School, Federal University of Bahia, Brazil. ORCID ID: <https://orcid.org/0000-0003-3736-0002>.

\*\*\* Department of Human Sciences and Philosophy, Feira de Santana State University, Brazil. ORCID ID: <https://orcid.org/0000-0001-8638-2385>.

\*\*\*\* Department of Criminal Law, University of Buenos Aires, Faculty of Law, Buenos Aires, AR C1425CKB. ORCID ID: <https://orcid.org/0000-0002-4943-5975>.

\*\*\*\*\* Postgraduate Program in Medicine and Health, Bahia Medical School, Federal University of Bahia, Brazil. ORCID ID: <https://orcid.org/0000-0003-1691-6761>.

*Correspondence Address:* Antonio Fábio Medrado de Araújo, Federal University of Bahia, Rua Doutor Augusto Viana, s/n - Canela, Salvador, Bahia, BR 40110-060, Brazil. E-mail: [lawtec@gmail.com](mailto:lawtec@gmail.com).

repercussions intrinsic to the developmental model of the 1960s (Reich 1995; Muzur et al. 2016; ten Have 2012). His activism or bioethicism was under the strong influence of Aldo Leopold and Albert Schweitzer (Araújo 2004). A forestry sciences engineer graduate from the University of Yale, Leopold (1886-1948) completed his master's degree in 1909, before dedicating himself to the US Forest Service. In 1933, he assumed a teaching role in the discipline of Hunting Management at the University of Wisconsin, where he remained until his death. Leopold published about 350 scientific articles and led efforts to preserve American wildlife. He believed:

*The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land. This sounds simple: do we not already sing our love for and obligation to the land of the free and the home of the brave? Yes, but just what and whom do we love? Certainly not the soil, which we are sending helter-skelter downriver. Certainly not the waters, which we assume have no function except to turn turbines, float barges, and carry off sewage. Certainly not the plants, of which we exterminate whole communities without batting an eye. Certainly not the animals, of which we have already extirpated many of the largest and most beautiful species. A land ethic of course cannot prevent the alteration, management, and use of these 'resources,' but it does affirm their right to continued existence, and, at least in spots, their continued existence in a natural state (Leopold 1989, 204).*

The German theologian, organist, and doctor Albert Schweitzer (1875-1965) was awarded the Nobel Peace Prize in 1952, the same year as his impressive lecture was given at the French Academy of Sciences: *The problem of ethics in the evolution of thought*. There, he sustains and reaffirms his *The philosophy of civilization* published in 1923:

*Ethics grow out of the same root as world- and life-affirmation, for ethics, too, are nothing but reverence for life. That is what gives me the fundamental principle of morality, namely, that good consists in maintaining, promoting, and enhancing life, and that destroying, injuring, and limiting life are evil. Affirmation of the world, which means affirmation of the will-to-live that manifests itself around me, is only possible if I devote myself to other life. From an inner necessity, I exert myself in producing values and practicing ethics in the world and on the world even though I do not understand the meaning of the world. For in world- and life-affirmation and in ethics I carry out the will of the universal will-to-live which reveals itself in me. I live my life in God, in the mysterious divine personality which I do not know as such in the world, but only experience as mysterious will within myself (Schweitzer 2010, 79).*

Recent studies proclaim Potter's thesis, which founded his primary article (1970) that a "bridge to the future" is the maternal apex of bioethics (Pessini 2013; Goldim 2009; Reich 1995). However, Potter may not have given birth to bioethics—whether in terms of his own gnosis or teleology and even less in relation to the Bioethics neologism. Our antithesis and also hypothesis announce that Potter possibly and subtly appropriated the ecobioethical tradition and the term "Bio-Ethik" that had been articulated decades before by Jahr (1926; 1927), post-World War I. "The term *bioethics* was first used in 1926 by Fritz Jahr, a Protestant pastor in Halle an der Saale, when he introduced his 'Bio-ethical Imperative' [...]" (Sass 2016, 11).

From such a dialectic emerges that the bridge bioethics of Potter (1970; 1971) did not materialize a Big Bang, or singularity, but instead a nuance that would have assimilated the Jahrist Bio-Ethik by a subliminal spiral. Since then, an intense theoretical and ideological clash has formed the gradual conformation of a bioethical structure that was potentially directly copied. This is on the fringe of Fritz Jahr, whose aesthetics have been recovered (Araújo 2009, 45), but in an epistemologically naive manner. In this light, it is important to correct the idea that Jahr is merely a precursor—and not a founder—of bioethics, a notion derived from Anglo-American ethno-colonialism. Thus, the present study aims to speculate on the bridge bioethics of Rensselaer Potter as a very close similarity with Jahr's thoughts.

Therefore, documents have been filtered (Jahr 1927; Potter 1970) that will undergo specific analysis, setting some textual indicators: bioethics, imperative, and scientism. This is conducted not with the intention of pursuing taboo or crime, or in order to "police the academic universe in one of its reasons for existence—the wide exchange of ideas, hypotheses and knowledge" (Diniz and Terra 2014), but for realizing an archeology of narratives, to "look educationally rather than punitively" (Diniz and Terra 2014).

## METHOD

Empirical and ethnographic evidence generated by the "content analysis" method has advanced in Brazil, especially in qualitative research (Flick 2009). As a technique or strategy for data analysis, this hermeneutic method aims to "extract meaning from text and image data" (Creswell 2007, 194; Denzin and Lincoln 2000; 2006). In this regard:

*The decoding of a document can use different procedures to comprehend the profound meaning of the communications encrypted in it. The choice of the most appropriate procedure depends on the material to be analyzed, the research objectives and the ideological and social position of the analyzer (Chizzotti 2006, 98).*

For Bardin (2006, 38), this “content analysis” is:

*[...] a set of communication analysis techniques, using systematic and objective procedures for describing message content. [...] The intention of content analysis is the inference of knowledge relative to the conditions of production (or possibly reception), and this inference refers to indicators (quantitative or not).*

The aim of content analysis lies in “critically understanding the meaning of communications, their manifest or latent content, explicit or hidden meanings” (Chizzotti 2006, 98). Flick (2009, 291) considers it “one of the classic procedures for analyzing textual material, no matter what the source of that material is”. Minayo (2001, 74) says that content analysis is intended to verify hypotheses and to gain the intimate meaning of the content.

Bardin (2006) delimits and sorts three stages of content analysis, in accordance with which will be performed:

- **pre-analysis** — the stage of organization and operationalization of the substrate or analytical corpus in four layers: open-minded reading in approximation to the documentary repertoire where the data will be collected, filtering of documents that will undergo specific analysis, demarcation of hypotheses and objectives, and reference of textual indicators in those documents under analysis;
- **material exploration** — the stage of descriptive immersion in which analytical categories (taxonomic and coding systems), registration units (insights of meaning and, if applicable frequency counting) and contextual anchorages (segments or horizons of message comprehension) are delineated;
- **analysis of results, inference and interpretation** — the climax of digesting the information and inferential exegesis, providing intuitions, speculations and critical-reflexive analysis.

This introduction performs pre-analysis. Thereafter, the result and the discussion of this article concretizes, respectively, both the other phases identified by Bardin.

## RESULTS

Following the methodological itinerary, a table was constructed that compares the theoretical schemes of Potter and Jahr. The result is a descriptive approach, which correlates by qualitative meta-analysis, each paragraph of Jahr’s base text (2011; 1927) with Potter’s analogous fragment (1970):

Jahr (2011)		Potter (1970)	
Fragment	Exploitation of material	Fragment	Exploitation of material
<p><i>The strict distinction between animal and human being [Mensch], dominant in our European culture until the end of the 18th century, cannot be supported anymore. Up to the French Revolution, the heart of the European human being was struggling for a unity of religious, philosophical, and scientific knowledge; but such a unity had to be abandoned under the pressure of more information</i> (Jahr 2011, 1).</p>	<p>Analytical category: <b>bioethical imperative</b>.</p> <p>Registration unit: human-animal bond, plural (interdisciplinary) knowledge and <b>European ethnocentrism</b>.</p> <p>Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>techno-mechanics</b>).</p>	<p><i>In the past, ethics has been considered the special province of the humanities in a liberal arts college curriculum. It has been taught along with logic, esthetics, and metaphysics, as a branch of philosophy. Ethics constitutes the study of human values, the ideal human character, morals, actions, and goals in largely historical terms; but above all ethics implies action according to moral standards. What we must now face up to is that human ethics cannot be separated from a realistic understanding of ecology in the broadest sense. Ethical values cannot be separated from biological facts. We are in great need of a land ethic, a wildlife ethic, a population ethic, a consumption ethic, an urban ethic, an international ethic, a geriatric ethic, and so on. All of these problems call for actions that are based on values and biological facts. All of them involve bioethics, and survival of the total ecosystem is the test of the value system. In this perspective, the phrase “survival of the fittest” is simplistic and parochial</i> (Potter 1970, 127).</p>	<p>Analytical category: <b>science of bridge bioethics</b>.</p> <p>Registration unit: human-animal bond, plural (interdisciplinary) knowledge and <b>Anglo-American ethnocentrism</b>.</p> <p>Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>biotechnology</b>).</p>

<p><i>It will always be the credit of modern natural sciences to finally render an unbiased study of the world [Welt-geschehen]. We would not be seekers of truth today, if we would have given up the results of animal experimentation, blood research etc.. On the other hand, we cannot deny that precisely these scientific triumphs of the human spirit have infringed upon the dominant position of the human being in the world in general. Philosophy, formerly prescribing leading ideals for the natural sciences, now has to build her systems on the basis of specific knowledge from the natural sciences, - and it was only a poetic-philosophical [dichterphilosophische] interpretation of Darwin's insight, when Nietzsche considered humans to be a somewhat inferior stage towards a higher stage in evolution, as a 'rope extended between animal and superman [Übermensch]' (Jahr 2011, 1).</i></p>	<p>Analytical category: <b>bioethical imperative.</b></p> <p>Registration units: scientific-epistemological neutrality, overcoming of anthropocentrism by biocentrism and quality of life.</p> <p>Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>techno-mechanics</b>).</p>	<p><i>Mankind is urgently in need of new wisdom that will provide the "knowledge of how to use knowledge" for man's survival and for improvement in the quality of life. This concept of wisdom as a guide for action—the knowledge of how to use knowledge for the social good—might be called "the science of survival," surely the prerequisite to improvement in the quality of life. I take the position that the science of survival must be built on the science of biology, enlarged beyond the traditional boundaries to include the most essential elements of the social sciences and the humanities with emphasis on philosophy in the strict sense, meaning "love of wisdom." A science of survival must be more than science alone, and I therefore propose the term "bioethics" in order to emphasize the two most important ingredients in achieving the new wisdom that is so desperately needed: biological knowledge and human values (Potter 1970, 127-128).</i></p>	<p>Analytical category: <b>science of bridge bioethics.</b></p> <p>Registration units: scientific-epistemological neutrality, overcoming of anthropocentrism by biocentrism and quality of life.</p> <p>Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>biotechnology</b>).</p>
<p><i>What resulted from this revolution? First, the fundamental equalization of human being and animal as an object in psychology. Today, it [psychology] does not restrict itself to human beings, but applies the same methods to animals as well; and, as documented by comparative an-</i></p>	<p>Analytical category: <b>bioethical imperative.</b></p> <p>Registration units: <b>integrative (ecological)</b></p>	<p><i>In this age of specialization, we seem to have lost contact with the daily reminders that must have driven home the truth to our ancestors: man cannot live without harvesting plants or killing animals. If plants wither and die and animals fail to reproduce, man will sicken and die and</i></p>	<p>Analytical category: <b>science of bridge bioethics.</b></p> <p>Registration units: <b>integrative (ecological)</b></p>

*atomical-zoological research, quite instructive comparisons between human soul and animal soul have been done. Yes, even beginnings of plant psychology are visible, - the most prominent representatives are G. Th. Fechner in the past, R. H. France, Ad. Wagner and the Indian Bose at present, so that modern research in psychology covers all living beings in research. Given these circumstances, it is only logical when R. Eisler speaks of Bio-Psychik (science of the soul of all, what lives) (Jahr 2011, 1).*

**biopsy-  
chology**  
and soul as  
dimensions  
of living  
beings.  
Contextual  
anchoring:  
eschatology  
of the  
post-World  
War and  
Industrial  
Revolution  
(**tech-  
no-me-  
chanics**).

*fail to maintain his kind. As individuals, we cannot afford to leave our destiny in the hands of scientists, engineers, technologists, and politicians who have forgotten or who never knew these simple truths. In our modern world, we have botanists who study plants and zoologists who study animals, but most of them are specialists who do not deal with the ramifications of their limited knowledge. We need biologists today who respect the fragile web of life and who can broaden their knowledge to include the nature of man and his relation to the biological and physical worlds. We need biologists who can tell us what we can and must do to survive, and what we cannot and must not do if we hope to maintain and improve the quality of life during the next three decades. The fate of the world rests on the integration, preservation, and extension of the knowledge that is possessed by a relatively small number of men, who are only just beginning to realize how inadequate is their strength, how enormous the task. Every college student owes it to himself and his children to learn as much as possible of what these men have to offer, to challenge them, to meld biological knowledge with whatever additional ingredient they are able to master, and to become, if their talents are*

**biology**  
and soul as  
dimensions  
of living  
beings.  
Contextual  
anchoring:  
eschatology  
of the  
post-World  
War and  
Industrial  
Revolution  
(**biotech-  
nology**).

		<p><i>adequate, the leaders of tomorrow. From such a pooling of knowledge and values may come a new kind of scholar or statesman who has mastered what I have referred to as "bioethics." No individual could possibly master all of the components of this branch of knowledge, just as no one today knows all of zoology or all of chemistry, but what is needed is a new discipline to provide models of life styles for people who can communicate with each other and propose and explain the new public policies that could provide a "bridge to the future." The new disciplines will be forged in the heat of today's crisis problems, all of which require some kind of a mix among basic biology, social sciences, and the humanities (Potter 1970, 128).</i></p>	
<p><i>From Bio-Psychik it is only a step to Bio-Ethics, i.e. the assumption of moral obligations not only towards humans, but towards all forms of life. In reality, bio-ethics is not just a discovery of modern times. An especially attractive example from the past is the figure of St. Francis of Assisi (1182-1226) with his great love towards animals, his warm sympathy for all forms of life, centuries before Rousseau's romanticism for the entire nature (Jahr 2011, 1).</i></p>	<p>Analytical category: <b>bioethical imperative.</b></p> <p>Registration unit: bioethics as a rescue of morale (interdisciplinary) survival, shared by all living beings.</p> <p>Contextual anchoring:</p>	<p><i>The age-old questions about the nature of man and his relation to the world become increasingly important as we approach the remaining three decades in this century, when political decisions made in ignorance of biological knowledge, or in defiance of it, may jeopardize man's future and indeed the future of earth's biological resources for human needs. As individuals, we speak of the "instinct for survival," but the sum total of all our individual instincts for survival is not enough to guarantee the survival of the human race in a form that</i></p>	<p>Analytical category: <b>science of bridge bioethics.</b></p> <p>Registration unit: bioethics as a rescue of morale (interdisciplinary) survival, shared by all living beings.</p> <p>Contextual anchoring:</p>

	<p>eschatology of the post-World War and Industrial Revolution (<b>techno-mechanics</b>).</p>	<p><i>any of us would willingly accept. An instinct for survival is not enough. We must develop the science of survival, and it must start with a new kind of ethics—bioethics. The new ethics might be called interdisciplinary ethics, defining “interdisciplinary” in a special way to include both the sciences and the humanities, but this term is rejected because the meaning is not self-evident (Potter 1970, 130).</i></p>	<p>eschatology of the post-World War and Industrial Revolution (<b>biotechnology</b>).</p>
<p><i>When the unity of the European weltanschauung broke down at the end of the Baroque period, European intellectual life for the first time was able to receive without prejudice foreign worlds of thought [Gedankenwelten] without prejudice. Already Herder’s comprehensive spirit - probably the most sensitive in those days for things to come - expected of humans, based on the image of an all encompassing deity, that they project themselves into each and every creature and sense with it the way it needs. Such a reasoning already reminds us of the Indian philosophy, which by the way of England just had been discovered. But only during the time of Romanticism has India really influenced European intellectual life, and especially in Germany, its most important province. The teaching of reincarnation, as developed</i></p>	<p>Analytical category: <b>bioethical imperative</b>.</p> <p>Registration unit: religious orientation (<b>Buddhism and Protestantism</b>) and <b>holistic</b> bioethics.</p> <p>Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>techno-mechanics</b>).</p>	<p><i>Before presenting the mechanistic concepts, it may be desirable to first mention the nature of the scientific revolution and some of the major historical polarizing views of mechanism versus vitalism and reductionism versus holism, which in my opinion have delayed the development of a broad and unified biologically oriented value system. Reductionism and mechanism are the aspects of biology that push the dissection of the living organism to the smallest possible units, inquiring at each stage how the units interact. As the dissection has proceeded to the level of atoms and molecules, the new biologists have become chemists, taking the name molecular biologists, and have given the impression that they are concerned not with the organism but only with the parts. These biologists frequently present</i></p>	<p>Analytical category: <b>science of bridge bioethics</b>.</p> <p>Registration unit: religious orientation (<b>Jesuit</b>) and <b>cybernetic</b> bioethics.</p> <p>Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>biotechnology</b>).</p>

*in India, has influenced the reasoning of Indian schools of philosophy, especially the school of Sankya. An offspring of this school is the yoga teaching, drawing the most rigorous consequences from those thought processes. The yoga repentant [Jogabüßer] under no circumstances is allowed to live at the cost of co-creatures; above all, he shall under no circumstances kill any animal, and only under certain settings enjoy vegetable foods. He has to wear a veil over his mouth in order not to inhale even a small living being; for the same reason, he has to filter drinking water and shall not take a bath. The passion to not harm a living being in the process of self-preservation even leads some Indian repentant to eat horse manure. If in this context Buddha is mentioned, one has to stress that especially this religious leader refused such fanatic self-harm of the school of yoga. Buddha forbade, that food be based on animal products, but fully allows vegetable based foods. How much Buddha himself and his teachings totally believed in reincarnation of the soul, is very well demonstrated for us Europeans by the collection of Buddhist stories collected by Jatakas, stories ascribed to Buddha and narrating about his early life. He claims that he has lived as a human being before, but also*

*the popular image of scientist as opposed to humanist, and their contribution to bioethics is the reductionist knowledge that comes from the laboratory. Meanwhile, the biologists concerned with the whole organism, the holists, tend toward the humanistic side of the balance, but not so far as the vitalists, who in most cases today are not professional biologists. The vitalists are frequently people in the humanities or people whose religious convictions affect their introspective attempts to understand biology. Some highly respected biologists of earlier times were vitalists for historical reasons, that is, they were unable to explain their observations without invoking the idea that mysterious or supernatural ("vital") forces guided all living organisms, hence the concept of vitalism. I hope to make clear my own viewpoint that bioethics should attempt to integrate the reductionistic and mechanistic principles with the holistic principles. Moreover, bioethics should examine the nature of human knowledge and its limitations because, in my opinion, it is in this area that the only valid residue of vitalism makes its stand. Bioethics should develop a realistic understanding of biological knowledge and its limitations in order to make recommendations in the*

<p><i>remembers his former lives as an elephant, a gazelle, a crab, etc.. Even more beautiful than in Francis of Assisi, these narratives express the thought, that a human being in essence is related to all creatures (Jahr 2011, 2).</i></p>		<p><i>field of public policy (Potter 1970, 130-131).</i></p>	
<p><i>Such sequences of reasoning caused similar thoughts in European intellectual life, even if not in such a strict version. Theologian Schleiermacher (1768-1834) declared it to be immoral to destroy life and formation [Leben und Gestaltung], as they are, if there is no reasonable cause to do so. Similarly, the philosopher Krause, a contemporary of Schleiermacher, requests to respect each and every living being and not to destroy it without reason. Because, they all, plants and animals, also humans, have similar rights, but not Equal Right, depending on the requirements for reaching their specific destiny. The philosopher Schopenhauer, who claimed as special importance of his ethics as based primarily on the sentiment of compassion, required towards animals as well, openly referred to the Indian intellectual world [Gedankenwelt]. Via Richard Wagner, who was strongly influenced by Schopenhauer and a compassionate animal lover and friend of animal protection, those thoughts have become a common value for a broadest</i></p>	<p>Analytical category: <b>bioethical imperative.</b>                  Registration unit: <b>biocentric mystique,</b> theology of the spirit and natural law as foundations of bioethics (<b>epistemology</b>).                  Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>techno-mechanics</b>).</p>	<p><i>In order to understand where contemporary biology stands, we need to look upon biological science as one of the consequences of the scientific revolution. Biological knowledge is not something that can be gained by introspection alone. The reason for doubting the validity of unsupported introspection is based on cumulative knowledge about human behavior: we all have built-in instincts for self- and ego preservation, and we have passions, emotions, and irrational moments. Moreover, we are built in such a way that each new idea appears to solve some problem and creates in us a glow of euphoria. We feel that we have the answer to whatever it was that stimulated us, however transient the feeling may be. Each of the great advances in biology, such as Mendelian genetics and Darwinian evolution, was based on years of experimentation and observation. Nevertheless, these advances had to overcome the previous and persisting ideas that had been arrived at by men whose ideas came from within and were reinforced by a euphoria</i></p>	<p>Analytical category: <b>science of bridge bioethics.</b>                  Record unit: <b>biocentric revolution</b> as the foundation of bioethics (<b>science</b>).                  Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>biotechnology</b>).</p>

<p>group of people (Jahr 2011, 2-3).</p>		<p><i>that was personally convincing. Many of the deep-rooted ideas remaining in the world today—not only in science but in all fields—were originated by individual men who were convinced that they knew truth from within (or by a proclaimed revelation from an outside source) and who by strength of personality were able to gain momentum enough to silence their possible critics. Obviously some ideas have been helpful, while others (for example, those of Hitler) have been the source of much trouble in the world (Potter 1970, 131-132).</i></p>	
<p><i>Thus, in regard to animals, such a rule has become evident, at least as far as needless torture is concerned. With plants, it is different, so. For some, it seems at first unreasonable to have certain ethical obligations towards plants. But already [Apostle] Paul directed our compassion towards animals and plants. Comparable are the illuminated sentimental [verklärt stimmungsvollen] interpretations in Richard Wagner's 3rd act of 'Parsifal'. In pious devotion, humans at least on Good Friday avoid hurting stalks and flowers in the fields by walking more carefully. But also in the thoughts of plant ethics by a sober philosopher such as Eduard von Hartmann, who passed away</i></p>	<p>Analytical category: <b>bioethical imperative.</b>          Registration unit: eco(bio) ethical <b>accountability</b> of the human.          Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>techno-mechanics</b>).</p>	<p><i>Biology is more than botany and zoology. It is the foundation on which we build ecology, which is the relation among plants, animals, man, and the physical environment. Biology includes the sciences of genetics, which has to do with all aspects of heredity, and physiology, which deals with the function of individuals. For thousands of years, men have lived on this earth with no generally disseminated knowledge of their chemical nature. Man's dependence upon his natural environment was widely understood, but nature's bounty was considered to be limitless and nature's capacity to recover from exploitation was considered to be ample. Eventually it came to be real-</i></p>	<p>Analytical category: <b>science of bridge bioethics.</b>          Registration unit: eco(bio) ethical <b>biologization</b> of the human.          Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>biotechnology</b>).</p>

<p>20 years ago, we find similar thoughts. In an article on flower luxury, he describes a cut flower: 'She is an organism deadly hurt, but only her colors not yet destroyed, a head still there, but separated from the torso. – Whenever I see a rose in a glass of water or tied into a bouquet, I cannot fight the unpleasant thought that a human being has murdered a flower life for the sole purpose to enjoy his/her eyes while dying, heartless enough eyes, not to sense an unnatural death under the appearance of life' (Jahr 2011, 3).</p> <p>A majority of people naturally is not as sensitive as Ed. von Hartmann. However, everyone knows quite well, that plants are living beings, and that cutting flowers hurts them; but the thought that the flower might sense it, is far away. The concept of a plant-soul so far has not taken hold in us. Additional, we know that flowers also die and dry out, while they are on the plant, and therefore one does not take issue with cutting flowers, in particular when they were cultivated for that specific purpose (Jahr 2011, 3).</p>		<p>ized that man was exploiting the earth to an extent that required the use of more and more science and technology as the richest sources of iron and copper, for example, were used up. From the biological stand-point, man has progressively taken over the planet's resources by decreasing the numbers and kinds of other species of life and by increasing only those species that were useful to man, such as wheat, beef cattle, and other consumables. As a cancer specialist, I was naturally impressed with N. J. Berrill's statement, which has been repeated in various forms by others without citation since the publication of his <i>Man's Emerging Mind</i> in 1955 [1, p. 210]. He observed that "so far as the rest of nature is concerned, we are like a cancer whose strange cells multiply without restraint, ruthlessly demanding the nourishment that all of the body has need of. The analogy is not farfetched for cancer cells no more than whole organisms know when to stop multiplying, and sooner or later, the body of the community is starved of support and dies." In other words, we can ask the question, is it man's fate to be to the living earth what cancer is to man? (Potter 1970, 128-129).</p>	
<p>Thus, we start from a totally different point of view than the Indian fanatics, who do</p>	<p>Analytical category: <b>bioethical</b></p>	<p>The concept of life as a cybernetic machine has been admirably discussed by Rein-</p>	<p>Analytical category: <b>science</b></p>

<p><i>not want to hurt any living entity. Also, our regulations by law and police protect specific plants and flowers in certain areas (such as plants in the Alps) are based on totally different assumptions. The police state [Polizeistaat] intends to protect those plants from becoming extinct in those areas, also to be enjoyed by other people in the future. Whenever there are plants abundant, the state does not intervene to protect them as an end in themselves (Jahr 2011, 3).</i></p>	<p><b>imperative.</b>                  Registration unit: <b>utilitarian ethics.</b>                  Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>techno-mechanics</b>).</p>	<p><i>er in the publication [...] referred to earlier, and if this is a correct image, the humanistic biologist will have to adjust to it. I have only to add one more ingredient that was not stressed by Reiner, namely, the quality of disorder. I would agree with Reiner that man can be described as an adaptive control system, but I would insist that it is not enough to assume that the quality of disorder is implicit in that definition. I would insist that it be explicit. Thus I would postulate that man is an adaptive control system with elements of disorder built into every hierarchical level. Reiner has emphasized the description of machines or control devices in terms of the “mode of operation” and the “mode of control,” each of which may be fixed or variable (Potter 1970, 138).</i></p>	<p><b>of bridge bioethics.</b>                  Registry unit: <b>utilitarian-cybernetic ethics.</b>                  Contextual anchoring: eschatology of the post-World War and Industrial Revolution (<b>biotechnology</b>).</p>
<p><i>Also, our concept of animal protection rests on a decidedly different foundation than the attitude of the Indians. When we read in the novel ‘Holy Hate’ [Der heilige Hass] by Richard Voss, that a Rodyia-boy, i.e. a member of a despised caste, does even not want to kill a snake, because ‘also the snakes are our brothers and sisters’, we do not accept such a reasoning; we actually hold it to be our duty to kill harmful animals, if we can. We have our farm animals been killed by the butcher and the harmless</i></p>	<p>Analytical category: <b>bioethical imperative.</b>                  Registration units: preservation of flora and fauna, and <b>consumerism.</b>                  Contextual anchoring: eschatology of the</p>	<p>No correspondent.</p>	

<p><i>prey by the hunter, because we want to eat meat, which in our areas some do not want to do without, while in tropical countries vegetarian food is abundantly available (Jahr 2011, 3-4).</i></p>	<p>post-World War and Industrial Revolution (<b>tech-no-mechanics</b>).</p>		
<p><i>Our animal protection, thus, has a utilitarian aspect, which is daringly disregarded by the Indians, while we content ourselves with avoidance of unnecessary suffering. Unfortunately, legal regulations against prevention or punishment of those cruelties are not strong enough in all civilized countries [Kulturländern] yet (Jahr 2011, 4).</i></p>	<p>Analytical category: <b>bioethical imperative</b>. Registration units: extractivism and the right of the lesser evil. Contextual anchoring: <b>eschatology</b> of the post-World War and Industrial Revolution (<b>tech-no-mechanics</b>).</p>	<p>No correspondent.</p>	
<p><i>But, we are on the road of progress and animal protection gets more and more support in wider circles, such as no decent human being [anständiger Mensch] will without criticism accept, that a thoughtless lout [Flegel] without any afterthought beheads flowers with a stick while on the hike or that children break flowers only to through them away after a</i></p>	<p>Analytical category: <b>bioethical imperative</b>. Registration units: moral progress and bioethics ontology. Contextual anchoring:</p>	<p>No correspondent.</p>	

<p><i>few steps. Our self-education, in this regard, already has made considerable progress, but we have to go further, so that the guiding rule for our actions may be the bio-ethical demand: 'Respect every living being on principle as an end in itself and treat it, if possible, as such!' (Jahr 2011, 4).</i></p>	<p><b>eschatology</b> of the post-World War and Industrial Revolution (<b>techno-mechanics</b>).</p>		
---	--	--	--

## DISCUSSION

### Jahr versus Potter: a comparative analysis of “Fragments”

Following is an analysis of the horizontally scribed fragments (columns 1 and 3) in the results table.

Jahr’s “Bio-Ethik” initially posits the plural character of knowledge after the French Revolution (Steger 2015) and Europe’s overcoming of the dissociation between animal, vegetable, and human being since the nineteenth century. Potter, however, takes over and makes a clean slate from the Jahrist perspective, preaching a general eco-ethics of survival, or “Bioethics”, from the axiology of biological facts, valid to every ecosystem, and that it is a conglomeration of ethical points: urban, international, demographic.

Jahr celebrates the triumph of the neutrality of modern natural sciences, which methodologically came to guide his own philosophy (Rinčić and Muzur 2019). Potter takes this conviction to the extreme, seeking a vital “knowledge of how to use knowledge” (Potter 1970, 127) as a factor of quality of life, and embodied in a bioethic as a social-ethic and eco-humanitarian «super biology».

In addition, the Jahr’s discourse reiterates the radical equivalence between animal and human, the object of a “Biopsychology” of the soul, or awakening of symbiotic consciousness, trans-specialized (planetary holism), as a precursor of its counter-utilitarian Bio-Ethik. Potter also brings a similar premise: modern specialization has made us forget the ancestral truth that we cannot survive devastating plants, animals and mining. Hence the urgency of bioethics—the cybernetic-interdisciplinary provider of “new public policies that could provide a ‘bridge to the future’ [...]” (Potter 1970, 128).

## Jahr versus Potter: a comparative analysis of “Exploration of the material”

Columns 2 and 4 of the table elucidate that:

- the “Bio-Ethik” translates to a moral-epistemological imperative, reduced in Potter to the condition of “super biology” or *sui generis* scientism. It is the epistemology (philosophy of science) being dangerously replaced by a scientific epistemology;
- in founding bioethics, Jahr explores critical points to survival today, using the example of consumerism—which has no accurate equivalent in Potter (1970);
- while Jahr (2011; 1927) is the proclaimer of a broad bioethical manifest, Potter (1970) deals with substantially more dramatic and hostile threats, often innovative and on a global scale (nuclear-arms race, the exasperation of dependence on fossil fuels, genetic manipulation and biopower, terrorism, telematics nanotechnology, cybernetic intelligence, demographic explosion), stylizing redeeming, positivist and academicist biologism;
- experiencing distinct global crises, both express eschatological or apocalyptic concern about the destiny of the biosphere. Jahr does so as a Protestant theologian in the post-First World War. Whilst Potter, a post-war biochemical oncologist, follows Jesuit orientation, evidenced by striking reference (Potter 1970) to the studies of Teilhard de Chardin.

### Complementary analysis

In interacting with Jahr under the Kantian tradition, Schweitzer proposed an entire eco-ethics that amalgamated with Leopold’s, which was endorsed and used by Potter (1970; 1971; 1988; Araújo 2004) in the possible semantic expropriation of the term and sign “Bioethics”. Its first allusion dates back to 1927 when Fritz Jahr wrote *Bio-Ethik. Eine Umschau über die ethischen Beziehungen des Menschen zu Tier und Pflanze* (Bio-ethics, an overview of the ethical relations of humans towards animals and plants).

Moreover, Schweitzer and Jahr are German contemporaries, gravitate to the same symbolic framework. The fact that Potter had known of Schweitzer’s eco-ethics introduces speculation: it is likely that Potter’s bioethics had access to the neologism of Jahr. Yet how did such a synergy occur on the German-American axis, to obfuscate and colonize Jahr’s ecobioethical-global legacy? Potter reproduces and eclipses it since the biennium of 1970-71:

*We are in great need of a land ethic, a wildlife ethic, a population ethic, a consumption ethic, an urban ethic, an international ethic, a geriatric ethic, and so on. All of these problems call for actions that are based on values and biological facts. All of them involve bioethics, and survival of the total ecosystem is the test of the value system. [...] The new ethics might be called interdisciplinary ethics, defining “interdisciplinary” in a special way to include both the sciences and the humanities, but this term is rejected because the meaning is not self-evident (Potter 1970, 127-130).*

In *Bioethics, the science of survival. Perspectives in biology and medicine*, which inaugurated the game of imitation, Potter (1970) reedited the Jahrist genesis of an interdisciplinary eco-ethics of planetary survival. This initiative was consummated in *Bioethics: bridge to the future* (Potter 1971), where chapter 1 is an adaptation of the Potter article of 1970. Here, a prophetic Rensselaer Potter may have taken hold of (hypothesis) the integrative worldview of Jahr, achieving it by the simulacrum of bridge bioethics. Potter (1970; 1971), however, did not even genuinely innovate with his metaphor or “credo” (Potter 1994, 193-195) of an intergenerational link between biological knowledge and fundamental values of the human person.

*I therefore propose the term “bioethics” in order to emphasize the two most important ingredients in achieving the new wisdom that is so desperately needed: biological knowledge and human values (Potter 1970, 127-128).*

An almost forgotten Jahr (1927; Engels 2004; Araújo 2009; Čović et al. 2011, 587-588) reflected inasmuch the bioethical determinants, the magnitude and emergence of ecological challenges inherent to global coexistence. Thus, the Potterian paradigm is possibly a Bio-Ethik’s hyper-realistic (photorealistic) artifact — it is no coincidence that hyper-realism translates, in the late 1960s, into New York and Californian artistic expression (Meisel 1981). The Potter Bridge also tends to illustrate a reverse engineering vector. It channeled geopolitical transmigration of that bioethical German imperative, which is proclaimed by Paul Max Fritz Jahr (1895-1953), baptizing it into English, the language of modern science (Di Bitetti and Ferreras 2017). However, this linguistic Darwinism does not undo Potter’s plausible similarity either.

In spite of Potter’s influence, lucidity discerns that his narrative may presuppose a linguistically sacralized (or dogmatized) copy. If this is correct, the bridge bioethics consubstantiates a holographic projection, not creative transposition. Current literature, by means of expert bioethicists (Goldim 2009; Muzur and Rinčić 2011; Muzur and Sass 2012; Muzur and Rinčić 2019; Pessini 2013), has already relocated from Potter to Jahr the emergence of the bioethics as a “noun” though not of the bioethics as a “verb”, which is the task of this article. The authorial historiography of bioethics shows, therefore, a clear tendency of adjustment:

Until very recently, the American biochemist Rensselaer Potter was recognized as the first person who used the neologism bioethics. However, in 1997, at a conference in Tübingen, Professor Rolf Loether of the Humboldt University of Berlin mentioned Fritz Jahr, who claimed to have coined the word Bio-Ethik in 1927. According to his report, Loether first heard the term “bioethics” in the early 1990s. Once the term seemed familiar to him, he began to look for it in the numerous publications of the famous periodical *Kosmos*, left by his grandfather. In the editorial of the 1927 volume, he found Jahr’s historical article entitled “Bioethics, an overview of the ethical relations of humans towards animals and plants.” The discovery of this work was propagated by Eve-Marie Engels, of the University of Tübingen. She organized and edited the annals of the congress at which Loether had participated. Engels mentioned Loether’s discovery in the article “Bioethik,” in *Metzler Lexicon*, in 1999, which was subsequently translated into Portuguese and republished in 2004 in the Brazilian magazine “*Veritas*.” This text caught the attention of biologist José Roberto Goldim, who wrote two articles revisiting the beginning of bioethics and the contribution of Fritz Jahr. A more detailed analysis of Jahr’s ideas was elaborated by Hans-Martin Sass, a fellow countryman who worked for many years at the Kennedy Institute of Bioethics. [...] In the last few years, publications about Fritz Jahr have begun to appear, as well as scientific events such as the “1st International Congress on Fritz Jahr and the European roots of bioethics,” held in the city of Rijeka, Croatia on 11th and 12th March 2011. In 2008, at the same Adriatic coastal city, the “VIII World Congress of Bioethics” was held, organized by the International Bioethics Association. At this congress, The Rijeka Declaration affirmed that Fritz Jahr had already used the term “bioethics” (Bio-Ethik) in 1927. His “bioethical imperative” should be considered a guide for personal, professional, cultural, social and political life, as well as the development and application of science and technology. [...] In the previously cited article published in *Kosmos*—“Bio-ethics, an overview of the ethical relations of humans towards animals and plants,”—Jahr proposed that the bioethical imperative be extended to all forms of life amplifying the moral imperative of Kant: act in such a way that you consider humanity, both in your person and in the person of others, always as an end and never as a simple medium. This proposal can be translated to: respect every living being as a principle and an end in itself and treat it, if possible, as such. Jahr’s concept of bioethics is broader than that of the American pioneers, including all forms of life (Pessini 2013, 13-15).

## CONCLUSION

The twentieth century reverberated a legitimate concern about the pollution of our seas, the atmosphere and, not before long, the whole earth, emphasizing the urgency of the ecological issue—because the very survival of species is at stake. Nevertheless, this paper emphasizes more subtle indignation: the pollution or degeneration (by similarity) of the cultural environment, so harmful to the minds of men and their intelligence.

In this scenario, Potter's intellectual longevity and stature are undeniable. His efforts to consolidate bioethical praxis worldwide were meaningful. However, not wanting this to be a plausible hypothesis, the bridge bioethics is suspected of close similarity with the Jahr's thoughts. Aside from mere speculation, Potter's monumental "bridge to the future" has for decades destroyed any bridge to the Jahrist-reminiscent past, and made the present, bias with an authenticity deficit.

Strictly speaking, etymologically, plagiarism is the "act or effect of imitating, of presenting, as his, the work of another person" (Cunha 1986, 611). The similarity of a proposition between bridge bioethics and Bio-Ethik reveals that, in theory, Potter took advantage of the Jahr's utopia, imposing it a reductionist lineage. Potter expresses, therefore, an ethnological capture of jahrisism.

## Acknowledgment

This study had the support of the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES) – Code 001.

## REFERENCES

- Araújo, Antonio (2004), *Fundamentos de antropologia bioética*. São Paulo, SP: Annablume.
- Araújo, Antonio (2009), *Direito da propriedade industrial e o método PIPa. Bioética da inovação, patentes universitárias, improbidade, PPPs e venture capital*. São Paulo, SP: Annablume; Salvador, BA: Universidade Federal da Bahia (UFBA), Instituto de Ciências da Saúde.
- Bardin, Laurence (2006), *Análise de conteúdo*. Lisboa: Edições 70.
- Chizzotti, Antônio (2006), *Pesquisa em ciências humanas e sociais*. São Paulo: Cortez.
- Čović, Ante, et al. (2011), *Rijeka Declaration on the Future of Bioethics. Jahr – European Journal of Bioethics*, 2(4): 587-588.
- Creswell, John W. (2007), *Projeto de pesquisa: métodos qualitativo, quantitativo e misto*. Porto Alegre, RS: Artmed.
- Cunha, Antonio G. (1986), *Dicionário etimológico da língua portuguesa*. Rio de Janeiro: Nova Fronteira.
- Denzin, Norman K., and Lincoln, Yvonna S. (2000), *Handbook of qualitative research*. Thousand Oaks: Sage publications.

- Denzin, Norman K., and Lincoln, Yvonna S. (2006), *O planejamento da pesquisa qualitativa: teoria e abordagens*. Porto Alegre, RS: Bookman.
- Di Bitetti, Mario S., and Ferreras, Julián A. (2017), Publish (in English) or perish: The effect on citation rate of using languages other than English in scientific publications. *Ambio*, 46: 121-127. <https://doi.org/10.1007/s13280-016-0820-7>
- Diniz, Debora, Terra, Ana (2014), *Plágio: palavras escondidas*. Brasília, DF: Letras Livres; Rio de Janeiro, RJ: Fiocruz.
- Engels, Eve-Marie (2004), O desafio das biotecnias para a ética e a antropologia. *Veritas*, 50(2): 205-228.
- Flick, Uwe (2009), *Introdução à pesquisa qualitativa*. São Paulo, SP: Artmed.
- Goldim, José Roberto (2009), Revisiting the Beginning of Bioethics: The Contribution of Fritz Jahr (1927). *Perspectives in Biology and Medicine*, 52(3): 377-380.
- Jahr, Fritz (1926), Wissenschaft vom Leben und Sittenlehre. *Die Mittelschule*, 40: 604-605 (December 15, 1926).
- Jahr, Fritz (1927), Bio-Ethic: eine umschau über die ethischen. Beziehungen des menschen zu tier und pflanze. *Kosmos. Handweiser für Naturfreunde*, 24(1): 2-4.
- Jahr, Fritz (2011), *Essays in Bioethics and Ethics 1927-1947*. Translation by Irene M. Miller and Hans-Martin Sass. Bochum: Ruhr-Universität Bochum, Zentrum für Medizinische Ethik.
- Leopold, Aldo (1989), *A Sand County almanac, and sketches here and there*. New York, NY: Oxford University Press.
- Meisel, Louis K. (1989), *Photo-realism*. New York, NY: Harry N. Abrams, Inc., Publishers.
- Minayo, Maria Cecília S. (Org.), (2001), *Pesquisa social: teoria, método e criatividade*. Rio de Janeiro, RJ: Vozes.
- Muzur, Amir and Rinčić, Iva (2011), Fritz Jahr (1895-1953): a life story of the “inventor” of bioethics and a tentative reconstruction of the chronology of the discovery of his word. *Jahr – European Journal of Bioethics*, 2(4): 385-394.
- Muzur, Amir, and Sass, Hans-Martin (Editors) (2012), *Fritz Jahr and the foundations of global bioethics: the future of integrative bioethics*. Münster: Lit Verlag.
- Muzur, Amir, Rinčić, Iva, and Sodeke, Stephen 2016. The real Wisconsin Idea: the seven pillars of Van Rensselaer Potter’s bioethics. *Journal of Agricultural and Environmental Ethics*, 29(4), 587-596.
- Muzur, Amir and Rinčić, Iva (2019), *Van Rensselaer Potter and His Place in the History of Bioethics*. Zürich: Lit.
- Pessini, Leo (2013), As origens da bioética: do credo bioético de Potter ao imperativo bioético de Fritz Jahr. *Revista Bioética*, Conselho Federal de Medicina - CFM, 21(1): 09-19. <http://dx.doi.org/10.1590/S1983-80422013000100002>.
- Potter, Van Rensselaer (1970), Bioethics, the science of survival. *Perspectives in biology and medicine*, 14(1): 127-153.
- Potter, Van Rensselaer (1971), *Bioethics: bridge to the future*. Englewood Cliffs: Prentice Hall.
- Potter, Van Rensselaer (1988), *Global bioethics: building on Leopold legacy*. Michigan: Michigan Press.
- Reich, Warren T. (1995), The word “bioethics”: its birth and the legacies of those who shaped it. *Kennedy Institute of Ethics Journal*, 5(1): 19-35.
- Rinčić, Iva, and Muzur, Amir (2019), *Fritz Jahr and the Emergence of European Bioethics*. Zürich: Lit.
- Sass, Hans-Martin (2016), *Cultures in Bioethics*. Zürich: Lit.
- Schweitzer, Albert (2010), *The philosophy of civilization*. Montana: Kessinger Publishing.
- Steger, Florian (2015), *Fritz Jahr’s (1895-1953)*. European concept of bioethics and its application potential. *Jahr – European Journal of Bioethics*, 6(2), 215-222.
- ten Have, Henk Antonius Maria Johannes (2012), Potter’s notion of bioethics. *Kennedy Institute of Ethics Journal*, 22(1), 59-82.

# Jahr i Potter: slučajne sličnosti?

## Sažetak

Člankom o znanosti preživljavanja, a kasnije i knjigom „Most prema budućnosti“, Potter je postao slavan upotrijebivši neologizam „bioetika“ i nakon toga poznat kao osnivač bioetike. Međutim, 43 godine prije Jahr je imao sličnu ideju i iznio je u članku „Bioetika: preispitivanje etičkih odnosa ljudi prema životinjama i biljkama (prevedeno s njemačkog)“. U radu predlažemo ispravljanje ideje da je Jahr samo preteča, a ne osnivač bioetike. Razmatramo bioetiku mosta Rensselaera Pottera kao vrlo sličnu Jahrovim mislima. Metodom „analize sadržaja“ napravljena je tablica koja uspoređuje teorijske sheme Pottera i Jahra, korelirajući kvalitativnom metaanalizom svaki odlomak Jahrova temeljnog teksta (1927.) s Potterovim analognim tekstom (1970.). Sličnost tekstova otkriva da je Potter, u teoriji, imao koristi od Jahrove utopije, namećući joj redukcionističko podrijetlo. Potter, prema tome, izražava etnološki vid jahrizma.

**Ključne riječi:** Potter, mostovna bioetika, Jahr, bioetički imperativ, sličnost, analiza sadržaja.