



INTENTIONALITY, FITNESS AND EVOLUTION IN WILLIAM JAMES'S PRAGMATISM¹

Daniel Cerqueira Baiardi

Doutorando FFCH-Universidade Federal da Bahia (bolsista/CAPES)
Salvador – BA- Brasil
baiardi@usp.br

Abstract: *The purpose of this paper is to provide evidence of the outstanding participation of William James in what is understood as the Evolutionary Epistemology Research Program and his connections with this tradition. Via a rational reconstruction of the Jamesian project, I try to explain the direct influence of Herbert Spencer's evolutionism on the development of his conception of mind and knowledge, surpassing even the well known influence of Darwin. Some authors hold that the procedural aspects and Jamesian evolutionary approach to the origin of mind is essentially Darwinist, but the similarities with Spencer's system are diverse and meaningful. Although James accepts the correspondence theory, he suggests an omission by Spencer in accomplishing a real teleological analysis on individual interests. Stressing into the question of whether pleasure and pain have some relation with correspondence, he asserts that for a large number of elements in the environment, there should be a correlative neutral internal type, or intermediary, as a sense of reward. The evolutionary concept of fitness subsidizes a satisfactory interpretation to the Jamesian theory of knowledge. Understanding meaning as the conceivable effects of an object's practical value, James holds the belief that truth is built through the process of an individual's interaction with the world. This evolutionist's assumption along with his naturalized notion of interest enables a fundamental theory of meaning – a necessary step to support his pragmatic conception of truth.*

Keywords: *Adaptationism. Selectionism. Meaning. Truth. Correspondence Theory.*

INTENCIONALIDADE, APTIDÃO E EVOLUÇÃO NO PRAGMATISMO DE WILLIAM JAMES

Resumo: O objetivo deste artigo é oferecer evidências da destacada participação de William James no que é conhecido como Programa de Pesquisa em Epistemologia Evolutiva e suas relações com esta tradição. Através de uma reconstrução racional do projeto jamesiano, tento explicitar a influência direta do evolucionismo de Herbert Spencer no desenvolvimento de sua concepção de mente e conhecimento, sobrepujando até mesmo a conhecida influência de Darwin. Alguns autores consideram que a aproximação de James aos aspectos processuais e evolutivos, os quais originam a mente, é essencialmente darwinista, contudo, as semelhanças com o sistema de Spencer são diversas e significativas. Entretanto, ao mesmo tempo em que sustenta a teoria da correspondência, James sugere uma omissão de Spencer em realizar uma verdadeira análise teleológica dos interesses no indivíduo. Pondo em questão se os prazeres e as dores têm algo que ver com a correspondência, assevera que, para um grande número de elementos no ambiente deve haver

¹ An earlier version of this paper was read at the 13^o International Meeting on Pragmatism. Present formulations owe much to Paulo Abrantes, Vincent Colapietro and Waldomiro Silva Filho. I would like to thank to Julia Landau for some suggestions with the English version. My research was supported by CAPES.

correlativos internos de um tipo neutro, ou intermediário, como um sentimento de recompensa. O conceito evolucionista de aptidão subsidia uma interpretação satisfatória para a teoria do conhecimento de jamesiana. Tomando o significado enquanto os efeitos concebíveis do valor prático que o objeto possui, James sustenta a crença de que a verdade é construída no processo de interação do indivíduo com o mundo. Este pressuposto evolucionista, associado à sua noção naturalizada de interesse, viabiliza uma teoria do significado, fundamental para a sustentação da concepção pragmática de verdade.

Palavras-chave: Adaptacionismo. Selecionismo. Significado. Verdade. Teoria da Correspondência.

* * *

Introduction

The purpose of this paper is to provide evidence of the outstanding participation of William James in what is understood as the Evolutionary Epistemology Research Program and his connections with this tradition. However, I am interested not only in the influence of Darwin's theory in this process, but also in Spencer's legacy inside classical pragmatism. At this moment, my research is focused on the problem of how the evolutionist's theses assisted the development of James's epistemology. Nevertheless, in this process, the attempt is not only to provide a historical reconstruction; I am also evaluating how the solutions to the problems faced by classical pragmatism could contribute to contemporary issues such as meaning, truth and natural kind theory.

However, before proceeding, I must emphasize an important distinction proposed by Bradie (1986) between evolutionary epistemology mechanisms (EEM) research program and an evolutionary epistemology of theories (EET) program, which also embraces other forms of cultural evolution. Despite the fact that today in EEM program we can find nearly absolute consensus regarding this type of change under the Darwinian perspective, in the context of cultural evolution (EET) the evolutionary epistemologists are divided among the possibility of operating a Lamarckist and adaptationist model of change, or a Darwinian and selectionist one (Hussey, 1999). There are people, instead, who believe that the two models of transformation can operate simultaneously. Despite Spencer giving more emphasis to adaptation, he never underestimates selection, indeed, he coined the famous syntagma: "survival of the fittest." Darwin himself also recognizes Spencer's contribution to psychology in the final page of some editions of *The Origin*, agreeing with the thesis that all mental faculties are gradually acquired (Darwin, 1872, p. 559).

1. Darwinian and Spencer: Models of Development and Cognitive Psychology

Some authors hold that the procedural aspects and Jamesian evolutionary approach to the origin of mind is essentially Darwinist (Carlson, 1997; Kinouchi, 2006; Frega, 2011), but the similarities with Spencer's evolutionary psychology and epistemology are many, and meaningful. Darwin wrote about behavior, but Spencer developed an entire philosophical system, focusing on cognitive psychology and sociology. After distributing some essays about his views on the subject, Spencer

received a letter of acknowledgement from Darwin, one year before the publication of *The Origin*, one to which he attached great importance.

Your remarks to the general argument of the so called Development Theory seem to me admirable. I am at present preparing an abstract of a larger work on the changes of species; but I treat the subject simply as a naturalist, and not from a general point of view; otherwise, in my opinion, your argument could not been improved on, and might have been quoted by me with great advantage²

Clearly, Spencer also took great advantage of Darwin's selectionist theory. However, I aim to demonstrate here that influences from Spencerianism can be found not only in James's conception of complex cognitive faculties' emergence (EEM), but also in his metaphysical conception of change and his ontological conception of diversity. Therefore, *I suggest here a strong continuity between the epistemological, psychological and metaphysical projects of James and Spencer.*

These continuities are also explicit when James turns to an EET, and states that "all our theories are *instrumental*, are mental modes of *adaptation* to reality" (James, 1907a, p. 428). Indeed, sometimes, James doesn't commit himself with the most important difference (and the most positive advance) between the Spencerian and Darwinist theories: the model of transformation emphasis. Spencer was a famous gradualist, and in his adaptationist view, the development of mind from primitive forms of life does not accept any abrupt changes or "evolutionary jumps". Any suggested boundary in the evolution of mind and its processes is arbitrary to Spencer. In *The Principles of Psychology*, discussing the phylogenetic development of brain structures, James makes clear his indifference, on the issue, of models of transformation in a curious footnote: "Whether this evolution takes place through the inheritance of habits acquired, or through the preservation of lucky variations, is an alternative which we need not discuss here" (1890, p. 79). This footnote may obscure the fact that James suggests that a new factor can be introduced in the development of mind, something like a "lucky variation"; the *subjective interests*. As suggests Godfrey-Smith (1996, p. 92-3), we perceive an *internalist* and selectionist stand by James, but I believe that this stance is only sustained when James speaks to the ontological development of the mind, and perhaps phylogenetic evolution of nervous structures, but not to cultural development. Nevertheless, when James thinks about cultural evolution, in his view of scientific advancement, especially in his opinion about the truth value of theories, I see him more as an adaptationist than a selectionist author. As a contrast, a celebrated case of selectionist evolutionary view of science is Popper's falsificationism (Popper, 1978).

However, the similarities with Spencer's psychology go on: as Edwin Boring points out, some exponents of the functional psychology school, as Dewey and James, were influenced, substantively, through critiques about the speculations undertaken by Spencer in *Principles of Psychology* (Boring, 1963, p. 165). Boring also suggests that James's functional psychology can be taken as a development of Spencer's own psychology (1969, p. 151). In 1875, James offers at Harvard the course *Physiological Psychology – The Principles of Psychology by Herbert Spencer*,

² In: Duncan, D. *The life and Letters of Herbert Spencer* (1996, p. 87). Letter from Mr. Darwin to Spencer, 25 November 1858.

repeating the class for a few years. In 1879, James offers the course *The Philosophy of Evolution* in which he used Spencer's *First Principles* (1862) as a textbook.

In his *Principles of Psychology* (1855), Spencer stresses the decisive role of the external environment over mental content. In many excerpts, we perceive the commitment of Spencer with an *externalist* perspective, in which environment plays the lead role in the development of the mind (Baiardi, 2008, p 76-7). This does not mean that all adaptationist views are externalists, or that all selectionist views are internalist. In fact, this dichotomy is more related to emphasis on models or process than absolute rejection of one of them. In Spencer's view, every form of intelligence is, in synthesis, *an adaptation of the internal relations to the external relations* (Spencer, 1855), a correspondence gradually acquired. Due to such attitude, Donald Campbell aligns his work with a branch known as Spencerian-lamarckist school of evolutionary epistemology (Campbell, 1993, p. 89).

Spencer holds the *Environmental Complexity Thesis* (ECT), according to which: *the function of cognition is to enable the organism to deal with the complexity of its surrounding world*. The ECT, well revisited today, was originally proposed by Spencer and later developed by James and Dewey (Godfrey-Smith, 1996, p. 113). The ECT sheds light on problems about the relationship between an organism and its surroundings. Spencer was concerned with the organization of the system's internal components and, specially, how they are related to conditions in the system's environment (Godfrey-Smith, 1996, p. 69). With its extraordinary explanatory power, the ECT can throw light over some problems in epistemology and philosophy of mind, problems like ascribing the functions of mind in superior forms of life, or at last, intelligent forms. As suggests Godfrey-Smith, I agree that Spencer is the very intersection point of British empiricism and the theory of evolution, his work opens new perspectives in the study of epistemology.

Classical empiricists like Locke and Hume generally did not attempt to explain characteristics of thought in terms of specific characteristics of the external world. They start the story at the point where a sensory impression has appeared in the subject, and proceed from there. Spencer starts the story with the characteristics of the subject environment that are perceived and dealt with (Godfrey-Smith, 1996, p. 5).

The debt of James's epistemology and cognitive psychology to the Spencerian system was recently re-evaluated by Dennett and Fodor (Dennett, 1982, p. 39; Fodor, 1981, p. 229-30). Both take the evolutionary program at the end of the 19th century as a completely distinct project from the orthodox intellectualist approach. According to Fodor, some difficulties in this strategy are avoided, but, on the other hand, cognitive psychology is transformed into something barely achievable, due to the overwhelming magnitude of all concrete relationships to be sustained between the organism and its environment. However, James's concept of *interest* is, in my point of view, an *economically* viable solution to conceive the organisms' cognitive fitness, dealing with a massive flux of information, as we shall see.

At the beginning of his *The Principles of Psychology* (1890)³, James explains that his project aims to fill some gaps of Spencerian psychology.

On the whole, few recent formulas have done more real service of a rough sort in psychology than the Spencerian one that the essence of mental life and of bodily life are one, namely, '*the adjustment of inner to outer relations*'. Such a formula is vagueness incarnate; but because it takes into account the fact that minds inhabit environments which act on them and on which they in turn react; because, in short, it takes mind in the midst of all concrete relations, it is immensely more fertile than the old-fashioned 'rational psychology', which treated the soul as a detached existent, sufficient unto itself, and assumed to consider only its nature and properties (James, 1890, p. 6). (Italics mine)

James's first public presentation of his concept of mind is the critique of Spencer's *Principles of Psychology*, published in the "Remarks on Spencer's Definition of Mind as Correspondence" (1878). In Putnam's opinion, it was also in this work that James outlined his conception of truth for the very first time. Such a concept, still according to Putnam, is closely related to the development of Jamesian metaphysical system (Putnam, 1997, p. 167).

However, I don't want through this reasoning to underestimate the powerful influence exercised by Charles S. Peirce and his maxim over James' thought. As Barton Perry clarifies, Peirce is the main agent in the enfeeblement of Spencer's influence over James. In his own words: Peirce "was the 'maturer companion', who first delivered the young student of science from the spell of Herbert Spencer" (Perry, 1948, p. 132). However, Peirce himself was an assiduous reader of the British philosopher. Peirce's concept of evolution is a dialectical product, by the famous Hegelian concept:

Thus, Peirce's idea of evolution has three levels, the Darwinian (Tychism - random and indeterminate), the Spencerian (Necessity - mechanical and determinate), and Peirce's own (Synechism - union of the two first levels) (Doyle, 2010, p. 2)⁴

2. The Jamesian Concept of Interest

Spencer repeats *ad nauseam* that there is an invariable correspondence between the vital functions of an organism and the conditions of its location (Spencer, 1855). Such conformity is manifested in the correspondence between the processes that occur inside the body and those that occur outside of it. It can also be defined as a correspondence between *associated ideas* and the *ontological and causal relations between things in the external world*. The Spencerian doctrine of correspondence receives strong influence from the Associationist School, specifically, from the conception of J. S. Mill. The challenge was to find regular laws which governed the association of ideas in the mind. James, building his image of the individual's relationship to its surroundings, introduces a teleological component to Spencer's model of *mind as correspondence*: the *interest*, a component that,

³ His book has practically the same title of Spencer's publication at 1855; *Principles of Psychology*.

⁴ See also: PEIRCE, C. S. *Collected Papers of Charles Sanders Peirce*, vol. VI, p.190, 1958.

obviously, is deeply related to the notion of *intentionality*. From the Jamesian perspective, mere correspondence with the outer world is a notion on which it is wholly impossible to base a definition of mental action. Bearing in mind that the definition of *interests* caused serious impact on the construction of James's theory of meaning and truth, I think that this concept must be observed in every serious attempt to understand his epistemological and psychological projects.

James suggests that Spencer was frightened by the challenge of constructing an entire teleological analysis to the individual interests, where all mental phenomena should be set in physiological terms only (James, 1878, p. 6). Thus, the Spencerian doctrine of *correspondence* omits the problem of *rewards mediation*, where the mind operates feelings like: fear; anger; anguish; pain, and pleasure. Such feelings were seen as closely related to the notion of *subjective interests*. In a term like *mind*, James identifies a variety of distinct phenomena, which, in his understanding, obey different laws: logical; moral; aesthetic; imaginative, among others.

To the individual man, as a social being, the interests of his fellow are a part of his environment. If his powers correspond to the wants of this social environment, he may survive, even though he be ill-adapted to the natural or 'outer' environment (James, 1878, p. 8).

James goes further, amplifying Spencer's ontology, "introducing into the term environment a reference, not only to existent things non-existent, but also to ideal wants" (James, 1878, p. 8). Consequently, James proposes a true modification in the Spencerian survival formula, contemplating not only a few missing elements in the original version, but also exploring the subjective ideals and aspirations, working towards a solution that could embrace *intersubjectivity*.

Excellence of the individual mind consists in the establishment of inner relations more and more extensively conformed to the outward facts of nature, and to the ideal wants of the individual's fellows, but all of such a character as will promote survival or physical prosperity (James, 1878, p. 8).

The consequence of including *interest* as a complementary element in the formula of *correspondence* can be expressed as follows: once the items that create interest or pleasure are identified, they demand that our attention be focused on them, therefore developing more extensive neural connections; on the other hand, environmental items that cause us repulsion or displeasure are identified – so that they can be avoided. External items that are insipid or irrelevant to the mind are quickly ignored or even deleted (James, 1878, p. 6). "We live in a world of realities that can be infinitely useful or infinitely harmful" - so the organism had to develop an economic response to such opportunities and dangers (James, 1907b, p 431). In a letter to his publisher, Henry Holt, the man in charge of the publication of *The Principles of Psychology* (1890), James stresses his position: "My Quarrel with Spencer is not that He makes much of the *environment*, but that He makes nothing of the glaring and patent fact of *subjective interests* which cooperate with the environment in moulding intelligence."⁵

⁵ Simon, Linda. *Expo William James - Life is in the Transitions*. - Letter from James to Henry Holt, 22 November 1878. Retrieved from: <http://hcl.harvard.edu/libraries/houghton/exhibits/james/professor/5_2.cfm> Data of access: 20 September 2011.

Concluding Remarks

James believed that *interest* is a key factor that no author willing to describe the evolution of mind could neglect. He suggests an omission by Spencer in accomplishing a real teleological analysis on individual interests. According to him, Spencer and Plato are *ejusdem farinae*: “To attempt to hoodwink teleology out of sight by saying nothing about it, is the vainest of procedures” (James, 1878, p. 13). The teleology of the individual, the finalism present in his behavior, he says, does not allow the mind to be overwhelmed by the chaos of an exposure to all elements of experience. I understand that the term *teleology* denotes *intentionality* to James and *correspondence* means simply *fitness* to an environment. The evolutionary concept of fitness subsidizes a satisfactory interpretation to the Jamesian theory of knowledge. Maybe this kind of attention selection is an effective answer to Fodor’s problem in this naturalistic strategy, deflating the amplitude of all concrete relationships to be sustained between the organism and its environment.

In the Jamesian view, the pursuance of future ends and the choice of means for their attainment are the mark and criterion of mentality presence in a phenomenon, mere *correspondence* with the outer world is a notion on which it is totally impossible to build a definition of mental action. While deeply questioning if the pleasures and pains have some relation with *correspondence*, he asserts: to a large number of elements in the environment, there should be a correlative neutral internal type, or intermediary, as a sense of reward. The *correspondence*, then, by inheritance, is established *a priori* in the mind of organisms. Evolutionary thought affords James’s pragmatism (and radical empiricism) a conclusive explanation for the existence, fitness and fallibility of the faculties found *a priori*. And, I have reasons to believe that *subjective interests* provide us with the *values* to be used in the calculation of practical effects – of utility or happiness – allowing a rational choice before action, paramount to the Jamesian pragmatic method. I think that this conceptual framework also contributes to confront contemporary issues about meaning. In the past decades a number of authors argued that an evolutionist approach is the key to overcome problems involving the semantic content of thought, problems like twin-earth changes on broad content in Putnam’s style essentialism, especially concerning natural kind theory. Maybe a pragmatic and evolutionary approach will aid in this endeavor. On the other hand, pragmatism offers to evolutionary epistemology a range of solutions for its problems, such as normativity and theoretic approaches to meaning and truth.

* * *

References

- BAIARDI, D. C. (2008). *Conhecimento, Evolução e Complexidade na Filosofia Sintética de Herbert Spencer*. In: Manuscript. São Paulo: USP-FFLCH; Theses Databank (*Master Thesis*), 2008.
- BORING, Edwin G. (1929). *A History of Experimental Psychology*. New York: D. Appleton, 1929.

- BORING, Edwin G. (1963). *History, Psychology and Science*. New York: John Wiley and Sons, 1963.
- BRADIE, Michael (1986). "Assessing Evolutionary Epistemology". In: *Biology & Philosophy*, N. 1, 1986.
- CAMPBELL, Donald (1993). "Evolutionary Epistemology". In: BARTLEY, W.W.; CAMPBELL, D & RADNITZKY, G. *Evolutionary epistemology, rationality and the sociology of knowledge*. La Salle: Open Court, 1993.
- DARWIN, Charles. (1872). *The Origin of Species by Means of Natural Selection*. (Reprint of the 6TH Edition) London: Oxford University Press, 1951.
- DENNETT, D. C. (1982). "Beyond Belief". In: WOODFIELD, A. (Ed.) *Thought and Object: Essays on intentionality*. Oxford: Clarendon Press, 1982.
- DOYLE, B. (2010). "Jamesian Free Will: The two-stage model of William James". In: *William James Studies*, Vol. 5, 2010.
- DUNCAN, D. (1908). *The life and Letters of Herbert Spencer*. In: *Herbert Spencer Collected Writings*. (Reprint of 1ST edition) London: Routledge & Thoemmes Press, 1996.
- GODFREY-SMITH, P. (1996). *Complexity and the Function of Mind in Nature*. Nova York: Cambridge University Press, 1998.
- FODOR, J. A. (1981). "Methodological Solipsism Considered as a Research Strategy in Cognitive Psychology". In: FODOR, J. A. *Representations: Philosophical Essays on the Foundations of cognitive Science*. Brighton: Harvester Press, 1981.
- FREGA, Roberto (2011). "Evolutionary Prolegomena to a Pragmatist Epistemology of Belief". In FREGA, R. (Ed.) *Pragmatist Epistemologies*. Lanham: Lexington, 2011.
- HUSSEY, Trevor. (1999). "Evolutionary Change and Epistemology". In: *Biology and Philosophy* 14, 1999.
- JAMES, William (1878). "Remarks on Spencer's definition of Mind as Correspondence". In: *Herbert Spencer, Contemporary Assessments - Herbert Spencer Collected Writings*. Londres: Routledge & Thoemmes Press, 1996.
- JAMES, William (1890). *The Principles of Psychology*. (Vol. I e II) New York: Dover Publications, 1950.
- JAMES, William (1907a). "The Pragmatic Method". In: McDERMOTT, J. J. (Ed.) *The Writings of William James*. Chicago: The University of Chicago Press, 1977.
- JAMES, William (1907b). "Pragmatism's Conception of Truth". In: McDERMOTT, J. J. (Ed.) *The Writings of William James*. Chicago: The University of Chicago Press, 1977.
- KINOUCI, R. R. (2006). "Darwinismo em James: A Função da Consciência na Evolução". In: *Psicologia: Teoria e Pesquisa*, Set-Dec 2006, Vol. 22 n. 3.
- PERRY, R. B. (1948). *The Thought and Character of William James*. Nashville: Vanderbilt University Press, 1996.
- SIMON, Linda (2010). *Expo William James - Life is in the Transitions*. Retrieved from: <<http://hcl.harvard.edu>> Data of access: 20 September 2011.

POPPER, K. (1978). "Natural Selection and the Emergence of the Mind". In: BARTLEY, W.W.; CAMPBELL, D & RADNITZKY, G. (Eds.) *Evolutionary epistemology, rationality and the sociology of knowledge*. La Salle: Open Court, 1993.

PUTNAM, Hilary (1997). "James's Theory of Truth". In: PUTNAM, Ruth Anna (Ed.). *The Cambridge Companion to William James*. Cambridge: Cambridge University Press, 1997.

SPENCER, Herbert (1855). *Principles of Psychology*. Londres: Routledge & Thoemmes Press, 1996.