

***A NEW USE FOR AN OLD THEORY:  
CHAUNCEY WRIGHT BETWEEN DARWINISM AND PRAGMATISM***

**UM NOVO USO PARA UMA VELHA TEORIA:  
CHAUNCEY WRIGHT, ENTRE O DARWINISMO E O PRAGMATISMO**

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**Abstract:** *S.J. Gould's proposal to distinguish between "adaptations" and "exaptations" is presently one of the most interesting attempts to overcome complications deriving from an "adaptationist" perspective of the theory of natural selection. This implies a clear distinction between the current use of a characteristic and its original function, and the permanently open possibility that a structure or faculty which developed for a certain function (or for no function at all, as illustrated by the case of so-called "spandrels of San Marco") be co-opted afterwards for a different use. Few modern scholars know that in the 1870s, Chauncey Wright, the "master" of the so-called American Pragmatists at the Metaphysical Club, had worked out an original interpretation of evolutionary theory which gained him Darwin's high esteem. Wright's theory held Gould's concept of evolution by "new uses of old powers", as the philosopher expressed it, to be of primary importance. Wright developed this concept to overcome complications with the theory of natural selection. However, Wright was primarily concerned with providing a new approach to the question of how the human mind originated, combining this initial view with a new philosophy of "Habits" and "Signs" that already showed a tendency towards pragmatist thought. This approach, which outlines a theoretical direction joining the "Gouldian" perspective with a pragmatist orientation, is currently one of the most promising paths for deeply re-thinking the question of the origin and development of what is known as "human nature".*

**Keywords:** *Chauncey Wright. Darwinism. Pragmatism. Evolution. Exaptation. Self-consciousness.*

**Resumo:** A proposta de S. J. Gould de distinguir entre "adaptações" e "exaptações", implicando a possibilidade permanentemente aberta de que a estrutura ou faculdade seja co-optada mais tarde para uso diverso, é atualmente uma das mais interessantes propostas para superar complicações advindas da perspectiva "adaptacionista" da teoria da seleção natural. Poucos estudiosos modernos sabem que na década de 1870, Chauncey Wright, o "mestre" do Pragmatismo norte-americano no Metaphysical Club, elaborou uma interpretação original da teoria evolucionista centrada neste conceito "gouldiano", principalmente para fornecer uma nova abordagem à questão de como a mente humana se originou. Esta perspectiva, combinada por Wright com uma nova filosofia dos "Usos" e "Signos", que já se mostrou uma tendência rumo ao pensamento pragmatista, é atualmente um dos caminhos mais promissores para se repensar profundamente a questão da origem da assim chamada "natureza humana".

**Palavras-chave:** Possibilidade. Teoria Evolucionária. Mente Humana.

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The publication of *On the Origin of Species* in 1859 met with the almost instant acceptance of the "fact" of evolution by the scientific community. But virtually nobody considered the Darwinian principle of natural selection as an explicative hypothesis, and it

was opposed until the *Modern Synthesis* in the 1930s-40s (MAYR, 1994, p.73). Chauncey Wright, “boxing-master”<sup>1</sup> of the so-called American Pragmatists at the *Metaphysical Club* in the early 1870s was one of the few who accepted the Darwinian explicative model. He understood it so deeply that he won the sincere admiration of Darwin himself - who took a great interest in his evolutionist papers that defended the principle of natural selection<sup>2</sup> - and grasped its theoretical and philosophical importance far ahead of his times<sup>3</sup>.

Wright was one of the few who understood that the revolutionary nature of Darwin’s theory lay especially in considering the origin and the occurrence of frequent variations as if they were entirely independent from the context of environmental relations in which the individual who presented them was immersed. In other words, a variation is casual, not in the sense of purely accidental, without a cause, but meaning that it is unpredictable for man, who can only reconstruct its antecedent conditions in retrospective; it is, especially, “accidental, as far as purpose is concerned” (DARWIN, 1985-2006, v.9, p.200), that is *compared to the meaning* it will acquire if it is chosen for its usefulness in a changing context of complex relations that are in constant unbalance, such as dynamic relations that characterise the economy of nature<sup>4</sup>.

This idea decidedly broke away not only, for obvious reasons, from the fixist-creationist Linnaean conception, but, as Wright knew<sup>5</sup>, also from the old preformationist conception that considered the motion of transformation from one form to another as a development wrought by the mere progressive “unfolding (‘evolution’ *sensu stricto*) of immanent potentialities” (MAYR, 1982, p.327) in types that were already perfectly present from the start. Basically these two interpretational models of living beings had in common the search for divine essences, for forms that were eternal and motionless a priori, to which all the living, from one end of the earth to the other, leaned and conformed<sup>6</sup>.

On the other hand Wright understood well, as the Pragmatists later did, that this “ontological faith” is, in practice, an effect derived from the primitive use of language, that generated superstition in our barbarian progenitors who considered terms designating groups of phenomena as mysterious “things” or hidden “powers”, which act in those very phenomena, “making them what they are”. Accepting the assumption of this “ontological passion”, says Wright, philosophers later spoke of “cause”, “substance”, “matter”, “mind” as

<sup>1</sup> See the account of C.S. Peirce in PEIRCE, 1931-1958, v.5, pp.8 and 43-44. Hereinafter it will be cited with the usual acronym CP followed by the volume and reference paragraph (in this case, CP 5.12 and 5.64).

<sup>2</sup> I especially refer to WRIGHT, 1870; WRIGHT, 1871; WRIGHT, 1872; WRIGHT, 1873. The latter is the most important, but it is probable that Darwin never read it. Concerning the others, Darwin deemed it appropriate to publish *The genesis of species* in England too, as a defense against the serious criticisms made by G. J. Mivart to the theory of selection, and he cited *Limits of natural selection* in several marginal notes to *Descent of Man*. See the letter dated 14 July 1871 from Darwin to Wright in *The letters of Chauncey Wright* (1878), now in WRIGHT, 2000, v.2, pp.230-231 (hereinafter WRIGHT, 2000, v.2 will be indicated in the text with the acronym LCW).

<sup>3</sup> As Carlo Sini wrote, Wright handed us “the first philosophical arrangement of the evolutionist theory (that is to date basically unsurpassed) and especially [...] the genetic-evolutionist framework of the problem of the birth of self-awareness” (SINI, 1990, p. III. Our translation).

<sup>4</sup> See PARRAVICINI, 2009, pp.59, 78, *passim*.

<sup>5</sup> For example, Wright wrote in the opening pages of his most important essay, *The evolution of self-consciousness*: “[...] the word “evolution” conveys a false impression to the imagination [...]. It misleads by suggesting a continuity in the *kinds* of powers and functions in living beings, that is, by suggesting transitions by insensible steps from one *kind* to another, as well as in the *degrees* of their importance and exercise at different stages of development” (WRIGHT, 2000, v.1, pp.199-200). Hereinafter the Wright’s *Philosophical Discussions* (WRIGHT 2000, v. 1) will be abbreviated with the acronym PD.

<sup>6</sup> See also DEWEY, 1965, pp. 5-6.

mysterious “wills” or “unknown inscrutable powers” that operate “in the outward and inward worlds” (see PD, pp.234-240)<sup>7</sup>.

Peirce wrote with great insight that “The Darwinian controversy is, in large part, a question of logic” (CP 5.354)<sup>8</sup>. And, we can add that, it was through the new Darwinian logic that Wright was able to reveal this superstition, exposing the typical “genetic fallacy”<sup>9</sup> that confuses the result of a process with the reasons for its origin. Considering the issue in depth, this error can still be found, as Wright was well aware, in the “adaptationist” explicative strategy which, as Gould, Lewontin and Vrba observed<sup>10</sup>, sees structures immediately adapted to certain uses or functions everywhere, even if in an incipient stage, later developed and unfolded by natural selection consistently with the adaptive potential that was already present from the start. Even this strategy, which is all but in decline today, falls prey to the same confusion, in its own manner. In fact, in this case the historical origin of a structure or behaviour is mistaken for its current utility or function. In other words, the current utility of a structure, its function, is a result that has receded to the status of origin, confused with the original plan, just as general terms have receded behind phenomena such as “things” or “essences”.

We are aware that Gould proposed replacing the adaptationist programme that exposes Darwin’s theory to serious objections<sup>11</sup> with a Darwinism that better focuses on the evolutionary importance of structural constraints, avoiding the aforementioned “genetic fallacy” and centring the theory on an evolutionary mechanism that is proving to be increasingly important for explanations in biology today. I refer to the so-called *exaptations*, “features co-opted for a current utility following an origin for a different function (or for no function at all) [...] in contrast with adaptations, or features directly crafted for their current utility” (GOULD, 2002, p.1232). This distinction prevents the biologist from confusing the current utility of a structure or skill with its historical origin<sup>12</sup>.

Few are aware that an idea closely resembling the one designated by the Gould’s term *exaptation* had already been developed and used in a profitable and interesting manner by Wright. Initially the American philosopher used it to successfully answer the objections contained in the famous paradox of the ultra-adaptationist Wallace<sup>13</sup>, and later more extensively and in a more general manner to characterise his personal interpretation of the evolutionary process and to layout his philosophical and epistemological ideas. Wright wrote:

[...] new uses of old powers arise discontinuously both in the bodily and mental natures of the animal, and in its individual developments, as well as in the development of its race, although,

<sup>7</sup> William James, that we can consider for many aspects a disciple of Wright, makes similar statements, for instance, in his Lowell lectures on Pragmatism held in 1906 (JAMES, 1978, pp. 83-84; 109-111; 126-127). For a broad perspective, also see James’ criticisms to rationalism (JAMES, 1978, pp.95-129). As R.B. Perry wrote (PERRY, 1935): “It is impossible to read ‘The Evolution of Self Consciousness’ without being constantly reminded of James” (WRIGHT, 2000, vol.3, p.45).

<sup>8</sup> Peirce continues: “Mr. Darwin proposed to apply the statistical method to biology. [...] Darwin, while unable to say what the operation of variation and natural selection in any individual case will be, demonstrates that in the long run they will be, or would, adapt animals to their circumstances. Whether or not existing animal forms are due to such action, or what position the theory ought to take, forms the subject of a discussion in which questions of fact and question of logic are curiously interlaced”.

<sup>9</sup> See MADDEN, 1963, p.102 and following.

<sup>10</sup> GOULD-LEWONTIN, 1979; GOULD-VRBA, 1982.

<sup>11</sup> The one presented by Mivart (MIVART, 1871) on the “incompetency of ‘natural selection’ to accounts for the incipient stages of useful structures” is famous. See also GOULD, 2002, pp. 1218-1224.

<sup>12</sup> Today the concept of *exaptation* plays a key role in explanations on evolutionary biology, and the idea of an “exaptive” origin of the human mind is increasingly mentioned.

<sup>13</sup> The formulation of the famous “Wallace paradox”, which cannot be discussed here, can be found at the end of WALLACE, 1869 and in WALLACE, 1870.

at their rise, these uses are small and of the smallest importance to life. They seem merged in the powers to which they are incident, and seem also merged in the special purposes or functions in which, however, they really have no part, and which are no parts of them [...]. The new uses are related to old powers only as *accidents*, so far as the special services of the older powers are concerned, although, from the more general point of view of natural law, their relations to older uses have not the character of accidents, since these relations are, for the most part, determined by universal properties and laws, which are not specially related to the needs and conditions of living beings (PD, pp.199-200).

Wright originally elucidates the important idea that is latent in Darwin's theory that "there are many consequences of the ultimate law or uniformities in nature, through which the acquisition of one useful power will bring with it many resulting advantages, as well as limiting disadvantages, actual or possible" which the principle of natural selection "may not have comprehended in its action" (PD, p.107). Specifically, if any type of variation has been preserved for certain advantages conveyed to the body in the "struggle for existence", or even without any selective advantage whatsoever, but only as an effect of the laws of the intrinsic architecture of forms, as in the case of the so-called Gould's *spandrels*, it is not said that the same faculty or structure's unforeseen potential that is not presumed by the principle of selection, does not comprise other feasible future advantages or effective uses. This idea enlarges on and develops the important Darwinian concept that variations are *casual with reference to the end*. The principle of natural selection does not act as a deterministically *direct* cause in natural formations, as Lamarck thought the evolutionary process, for instance, but is, instead, indirect and acts in retrospective because it co-opts for certain functions the available material that proves to be "randomly" useful in some way. From this standpoint, quoting Wright, "the origin of that which through service to life has been preserved, is to this process arbitrary, indifferent, accidental (in the logical sense of this word), or non-essential. This origin has no part in the process [...]" (PD, p.252).

Every event, every variation and every new use cause unpredictable a priori effects, and involves a potential of incidentally latent consequences that, despite being "implicit" in the antecedents, cannot be foreseen. Therefore, our only feasible option is their reconstruction in retrospective. This forces us to start from the effects, the consequences and the signs to trace the antecedents, the hypothetical initial conditions, to make a prediction<sup>14</sup>. In this sense we can say that from a process that was apparently confined to evolutionary biology Wright extrapolated an idea that, applied in an epistemological and theoretical sense, acquires revolutionary traits, underscoring both the insignificance of the origin, and the new importance acquired by the result and its effects. In this framework we can easily notice one of the most original ideas handed down to us by American Pragmatism<sup>15</sup>.

As Gould would say, every event is always open to "side consequences" or "propagated effects" (GOULD, 2002, chap. XI, *passim*) that cause, to quote Wright, incidental "developments around and outside of them" (PD, p.262). New emerging factors that are

<sup>14</sup> See, PD, pp.200-205. The logical, inferential form of Peircean abduction expresses something very similar: "The surprising fact, C, is observed; but if A were true, C would be a matter of course, Hence, there is reason to suspect that A is true". (CP 5.189). See also MADDEN, 1956.

<sup>15</sup> To quote James, pragmatism can be defined as "*the attitude of looking away from first things, principles, 'categories', supposed necessities; and of looking towards the last things, fruits, consequences, facts*" (JAMES, 1978, p.32, author's italics). Concerning Peirce, refer to his famous "pragmatic maxim", e.g. CP 5.402. On this theme, for a comparison between Darwinism and Pragmatism, see FABBRICHESI, 2009. In general, on the historical and theoretical importance of Darwinian thought for the emergence of Pragmatism, see SINI, 1972, chaps. I and II. Finally, for a close examination of the philosophical and theoretical meaning of the Darwinian revolution and its reconsideration in direction of Pragmatism, especially in relation to the theme of the evolution of self-awareness, cf. PARRAVICINI, 2009.

“added to them rather than evolved from them” (*ibid.*), recalling, if we so wish, an epigenetic development model, instead of an instructional-preformationist one. Moreover, this process never reduces the product to the sum of the parts, and it inserts the discontinuous into the process that remains continuous (STRAMBACI, 1990, p.28). In fact, the occurrence of a variation produces future effects that are charged with consequences for future developments, thus concurrently modifying, in retrospective, that from which it originates, while creating new uses and new variations.

In Wright’s thought this vision joins the Darwinian idea that the meaning of a variation is selectively given by its assayed usefulness, by its service in the economy of the living, and by its “cash-value”, to quote James (e.g. JAMES, 1978, p.97), in terms of adaptation and advantage in the struggle for life. Only at this condition, which is however a probabilistic (fallible) regulatory limit, rather than a necessary law, can a type of use or variation become “real” or “true”, namely, be embodied in the structural constraints of the form as an essential aspect (that is, operative, effective, in the pragmatist sense) for future life, producing important effects that have a retrospective influence on the form itself, and a projected influence on its objects and goals in an ongoing evolving circle<sup>16</sup>. A *ratio* (rationale) of effects forms before our eyes, if we interweave this bearing idea of Wright’s thought with other brilliant intuitions extensively found in his works<sup>17</sup>. Viewed in retrospective, it was an essential antecedent for subsequent pragmatist outcomes. The philosophy processed by Wright clearly sheds light on the theoretical guiding principle that James and Peirce later developed in detail as directly opposed to determinist, causalist or rationalist metaphysics. Moreover, in Wright it leads to outcomes that are already highly profitable when it is applied as a *working hypothesis* to interpret the evolutionary issue of self-awareness and language.

In Wright’s considerations on these themes, the first to collapse is the dualist Cartesian conception that ontologically sets up subject against object. It is replaced by a temporary, ongoing con-constitutional process of objective and subjective polarity as the effect of gestural, vocal and written linguistic practices. Starting from a new use of focus on interior images<sup>18</sup>, the possible division of an internal and external world is defined. This division is simply not given before any inferential attribution of the experiential phenomena to one or to the other world<sup>19</sup>. Hence, self-consciousness is an effect of the new use of images and signs, since they are recognised *a posteriori* as signs that can be used to interpret the world. The new ability to make use of signs now offers the opportunity to develop the human language. Only then, in the light of this acquired skill, of this *exaptation*, can external and internal world be clearly differentiated.

On these assumptions, the traditional concept of “intention” is emptied of meaning, as occurred with the concepts of “origin” and “cause”. Wright does not consider the “subject” an intentional centre from which actions, gestures and words are expressed anymore. A different interpreting stand is now established with no crystalline, unilinear relations between cause

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<sup>16</sup> This idea closely resembles James’ thoughts in several sections of his papers, when it refers to the mobile process of incorporation of new knowledge, new truths, in the “organic” framework of old patterns, involving continuous readjustments. See JAMES, 1978, pp.34-39; 83; 116-117. See also PD, p.115, where Wright draws a parallel between the dynamic system of the individual believes and that of the organic world controlled by the principle of natural selection. See also FISCH, 1947.

<sup>17</sup> To mention some of these intuitions, I wish to remind, for instance, Wright’s idea that “a knowledge of anything existing by itself and independently of its effects on us” (PD, p.348) is never given, and also Wright’s belief that scientific ideas are pragmatic hypotheses that can be ascertained by their effects, and that even “working hypotheses” do not summarize the truth but find new ones (PD, pp. 55-56).

<sup>18</sup> Wright drafts his genealogy of self-consciousness in PD, pp.205-219.

<sup>19</sup> In this sense, we can once again find a correspondence between Wright’s “neutral monism” and James’ “pure experience”. See KENNEDY, 1935.

and effect, intention and action, communicative intention and achieved effect. Mutual, constitutive relations are, instead, defined between the polarities involved, which are now arranged in a circle; hence, one alters the other endlessly, in an ongoing construction or formation by addition “around and outside” that continuously deviates the initial direction, which is subsequently always subject to a perpetual reconfiguration of the relations that form the process. The mind must therefore be deemed as a vacuum, a “no meaning at all” (PD, p.228), that is gradually filled with a sort of “internalization” process, to quote G.H. Mead (MEAD, 1934). The identity of the subject, and the division between an internal and an external world, is then something that is ceaselessly constructed in the continuous circle of interpretations both *of* and *on* signs. There is no magical intuitional skill of either Reality or Self, as Peirce meant<sup>20</sup>.

Just like living beings, when all is said and done, even the conceptual signs and linguistic meanings of our emerging “little representative world” (PD, p.223) are subject to the same Darwinian-pragmatic rationale of selected effect, as they are also evaluated and adopted according to their expressive efficacy or their practical effect on the life of both the individual and the species (PD, pp.256-259). Wright interweaves this awareness with the idea that, in the framework of a commonly used language, the meaning of terms deriving from their actual use is usually neither modified nor changed starting from either an intentional action or a subjective purpose. Instead, as the American philosopher explains when questioned on the issue by Darwin himself<sup>21</sup>, human intervention can resemble that of a “geological agent” (PD, p.260), precisely like the wind, rain, or other animals, that through their unaware activity, produce effects, which in the long run cause remarkable transformations. Even man unintentionally and continuously produces deviations from the rule, from meanings and from established customs with his sole actions, letting selection perform its slow and invisible work that builds and sediments variations. Hence, changes are not wrought by the intention of the speaker, who usually attempts to conform to tradition as far as possible, but by the “epigenetic” “around and outside” accumulation of unintentional effects we have seen at work even in the evolutionary process of forms. In this sense, sedimented habits concerning the use of signs, for instance, linguistic conventions and grammar rules that, according to Wright, in some way configure the a priori conditions of our interpretations of the world, share the same fate or the same transformation and selection rationale of living species, since, to quote Darwin, they are “only an occasional scene, taken almost at hazard, in a slowly changing drama” (DARWIN, 1859, p.315)<sup>22</sup>.

Therefore, Wright deems that even the human being and his actions do not escape the motion of this “eternally incomplete” universe<sup>23</sup>. Though his actions present what undoubtedly resembles “conscious selection” and the acquired skill to act and plan in view of known goals, man is also subject to the action of “unconscious selection”, meaning that his actions, to quote Nietzsche, are “continually interpreted anew, requisitioned, anew,

<sup>20</sup> See, for Wright: PD, pp.229-235; LCW, pp.124-127. For C.S. Peirce, CP 5.213-263.

<sup>21</sup> See the letter dated 3 June 1872 that Darwin wrote to Wright, now in LCW, p.240.

<sup>22</sup> Wright says: “On neither theory, therefore, can unintended effects, or the effects of unrecognized causes acting through the will, be regarded as different in their character from the general results of selection in nature” (PD, p.261). On the issue of mnemonic-associative foreknowledge that can always be changed in retrospect on the basis of new experiences, see what Wright says in LCW, p.124-125. On the essential role of the use of signs in this “functional a priori element” see also WIENER, 1965, p.45.

<sup>23</sup> “This pluralistic view, of a world of *additive* constitution, is one that pragmatism is unable to rule out from serious consideration. But this view leads one the farther hypothesis that the actual world, instead of being complete ‘eternally’, as the monists assure us, may be eternally incomplete, and at all times subject to addition or liable to loss” (JAMES, 1978, p.82; author’s italics). A typically Wrightian idea.

transformed and directed to a new purpose”<sup>24</sup>. Originated from certain reasons of which man might have been conscious to some degree (but the origin is not essential), it produces, as Peirce says, “*a vast ocean of unforeseen consequences*” (CP 8.176. our italics) or again, as Gould would say, a “large realm of effects propagated to other levels” (GOULD, 2002, p.1267), from somewhere “around and outside”, which clearly means both outside in the “world” and, concurrently with a ricochet effect, in the other “outside”, our so-called “psychic world”. Or, again, considering these effects, the agent is always “doing something else” in view of his special goals, whether they are implemented or known; hence, those “side consequences” are invisible and insignificant while he is acting (the origin is not essential). They can become “visible” only in retrospect, but by that time the agent that “sees” them and “selects” them has already unavoidably shifted to other practices and is already doing something else, focused on other goals and producing other unseen effects again, somewhere<sup>25</sup>.

Concluding, this applies especially to effects produced by certain important theories, such as those defined by Darwin, by American pragmatists and, maybe incidentally, in the long run, by the few precious traces that have been left by an obscure philosopher from Harvard called Chauncey Wright.

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<sup>24</sup> NIETZSCHE, 1967, p.55, quoted in GOULD, 2002, p.1216.

<sup>25</sup> See SINI, 2004a, from which I quoted the expression “we are always doing something else”, p.38. Moreover, see, for example, SINI, 2004b.

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