

# Review of: "Femmes finales: natural selection, physiology, and the return of the repressed"

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**Potential competing interests:** No potential competing interests to declare.

Review of "Femmes Finales" by David Haig

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In this manuscript, David Haig has collated a series of quotations on final causes from British naturalists of the 19th century. Haig's collation of these passages is an undeniable service to the literature on teleology, biological function, and final causation in the history of biology. The passages are especially salient because they demonstrate the very gendered and, at times, quite sexist themes with which male naturalists characterized final causes. Although Haig does not himself acknowledge the sexist nature of these themes explicitly, they are unmistakable to these reviewers, and we welcome their acknowledgment in the literature (as well as the ensuing discussion, historical analyses, and criticisms).

However, while the collated passages are interesting, the manuscript unfortunately suffers from an absence of an original, more distilled analysis. As Haig has commented to an earlier reviewer, he offers this manuscript as a "pastiche" while he plays the role of broadcaster, thereby allowing the British naturalists to speak for themselves and for the readers to draw their own conclusions. Again, it is an unmistakable service to the scholarship on this topic that Haig has compiled these informative quotations in one place. Unfortunately, however, this means the manuscript functions more as a database than it does an interpretation.

These reviewers invite and encourage Haig to make two significant adjustments in this regard: (1) converge on a central argument that he wishes to develop, and then (2) compress the present quotations, maintaining only those that can be directly marshaled in support of his central thesis. In other words, the quotations ought to pack more of a punch. In its current form as a pastiche, Haig risks losing the reader in the oft recapitulated themes. Making these two adjustments, we believe, would greatly improve the quality of an already fascinating and scholarly contribution.

Additionally, Haig outlines two goals in the introduction of this paper: to provide a historical overview of gendered metaphors for final causes in biology and to illuminate a major theme regarding "the estrangement between physiology and evolutionary biology" (pg. 3). As for the first goal, Sections 2 through 4 provide an outline of the metaphor's evolution from the 19th century through the 20th century. However, Haig fails to clarify the theme he intends to show. Section 5, titled "Physiology and Evolutionary Biology," seems to be intended to contain an argument regarding the supposed

estrangement. The seeds of potentially interesting prose utilizing the previously established historical foundation are planted at the outset, harkening back to Section 3.5 about John Burdon Sanderson and comparing it to the work of Ernst Mayr. However, almost as quickly as the seeds are planted, they are abruptly uprooted as focus shifts towards establishing a new foundation that apparently helps “makes sense of debates within biology over concepts of function” (pg. 28). In doing so, Haig introduces new concepts, including adaptationism, population genetics, aspects of selection, and differences between present and past utility, all of which, unfortunately, fail to demonstrate the separation of physiology from evolutionary biology. The estrangement between the fields is abandoned, and focus lies solely on functional definitions in physiology. As such, the paper does not meet its goal of illuminating and substantiating such a disconnect.

Additionally, the shift to functional definitions in physiology yields no original contribution to the broader teleological debate, instead appearing tacked on to the end of Section 5. The idea that present and future utility may guide debates regarding SE and CR functions is intriguing, but this thread of reasoning is abandoned as well. Ultimately, Haig defers the question to another citation.

In the concluding section, not only does Haig avoid reference to either of the previously mentioned lines of reasoning, but he also claims to “contend that it was Darwin’s neutralization of this argument by exclusion that led to the rapid acceptance of descent with modification” (pg. 29). The reviewers fear that this is a newly introduced conclusion unsupported by the outlined historical framework, and one that does not rely on original conceptual work. The same position has been endorsed by many scholars—for example, Ghiselin, when he writes that Darwin “developed a new way of thinking that allows us to dispense altogether with that metaphysical delusion” (1994). As such, the central aim of this project remains opaque to these reviewers. If intended to be a historical tracing of a metaphor, it could eliminate Section 5 entirely. If Haig’s goal is to contribute originally to the teleological question, it requires a much clearer thread of argument supported by the historical framework generated in the body of the paper.

Finally, Haig states in his introduction that: “This paper follows this thread of gendered metaphors of final causes—of nuns, priestesses, hetairai, and mistresses—through the troubled but fruitful marriage of biology and final causes” (pg. 2). While Haig’s paper does *follow* these metaphors, it fails to *follow up* on them, to do any original literary-critical work with them aside from identifying a literary lineage that biology and its philosophers occupy. This paper could be the start of a great joint project between the history and philosophy of biology and literary studies, but much more must be done to constitute an original contribution to either field. Haig would be far from the first to invoke a structural metaphor and then discard it, but the paper’s title, “Femmes finales: natural selection, physiology, and the return of the repressed,” promises an almost psychoanalytic take on the history of biology. When Haig does invoke Freud, he writes: “...Sigmund Freud... would have diagnosed denial. Teleology had been repressed and pushed into the unspoken unconscious” (pg. 23). There are technical qualms to be had with Haig’s formulation by its own terms. What is unconscious is unspoken, and in a Freudian sense, cannot even be gestured to by the patient in everyday speech. It is the patient’s inability to speak about what is unconscious that causes the repressed patient to develop neuroses in the body. Yet, “the meme of the mistress,” as Haig shows us, is explicitly documented in the writings of numerous 20th century biologists. Its existence is known, and therefore not unconscious, in the works Haig profiles.

Despite its title, this paper misses what might be understood as truly repressed within the writings of these biologists: the form and function of sexualizing metaphor itself. The mistress is well-documented, as is biology's contentious relationship with teleology. What merits careful psychoanalytic study in the manner Haig gestures towards is the symbolic apparatus that transforms teleology into virgin, mistress, barren, or secret. This relationship is not between particular historical biologists and particular historical metaphors, but between scientific reasoning and metaphors-as-such, with the meme of the mistress as a case study. This paper would be incredibly useful to anyone looking to sketch the contours of such a relationship, and the reviewers would encourage those interested to synthesize the proper philosophical, historic, and psychoanalytic texts into an original analysis. But that is work that is yet to be done, work that a paper like this does not and perhaps cannot accomplish without significant revision.

#### References:

Ghiselin, Michael T. (1994). Darwin's language may seem teleological, but his thinking is another matter. *Biology and Philosophy* 9 (4):489-492.