The Hobbit Trap: How New Species are Invented, 2nd Edition

Maciej Henneberg, Robert B. Eckhardt, and Jon Schofield
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Paleoanthropology has a long and complicated intellectual history. Throughout the twentieth-century, paleoanthropology has struggled to make sense of itself as a historical science, growing out a tradition of naturalist-based narrative explanations and ultimately adopting its pragmatic, scientific framework. While narrative explanation might not be a currently satisfying method for academic inquiry, it is, nevertheless, a useful historical tool as it works to make sense of paleoanthropology's fossil finds and the stories that surround them. In that context, the story of discovery, interpretation, and meaning is neatly nestled among its sociological factors.

Undoubtedly, there is a precedent for famous fossils and their founders to become "types" of things. Many famous fossils become actual type specimens of a species and, by parallel, many of the stories of discovery and interpretation that surround these fossils can become "typecase narratives" of how paleoanthropologists "do science." It is hard to think of Raymond Dart and the Taung Child, Rama's Ape, or even the Piltdown Hoax without realizing that the fossil, its founder, and its subsequent story speaks to the social process of "doing science." One cannot help but want to stand up and cheer when Dart's interpretation of the Taung Child is vindicated so many years after his original description in *Nature* (Lewin 1997). In the case of Dart's story, it became a typecase narrative—Dart's determination in fighting against an established paleo-intelligentsia is ultimately vindicated. With this type of narrative embedded into the sociological structure of paleoanthropology, it is easy for researchers to slip into "re-tellings" of it and to see themselves as characters in this broader narrative *arche*.

The Hobbit Trap: How New Species are Invented, by Maciej Henneberg, Robert Eckhardt, and Jon Schofield, has the potential to discuss the interesting stories of discovery and interpretation that surround the 2004 fossils from Flores. Although the authors successfully demonstrate that paleoanthropology, like any science, is fraught with challenges that surround its fundamentally social structure, any intellectual heft behind the authors' questions is obscured by confusing narration and structure of their text. They begin *The Hobbit Trap* with background about the book's various authors, providing their personal stories about how they came to be involved in paleoanthropology. They describe prior fieldwork and fossil finds in Southeast Asia (it is hard to imagine writing anything about Southeast Asia without a nod of historical approval to Eugene Dubois and Java Man) and the associated complexities of research in the region.

Fundamentally, the story—the narrative, if you will—of *The Hobbit Trap* is unclear to the reader. Is it about the story about the discovery of a particular set of fossils? Is it about the standards for measuring, assessing, and making sense of variation—leading to broader questions of species identity? Is it about the very nature of the social processes of science—indeed of doing good science? Is it about describing what constitutes a satisfactory explanation in paleoanthropology? The authors merely allude to these questions and themes throughout *The Hobbit Trap* by simply circling around these topics, but never provide a compelling argument as to how their specific case and questions surrounding the species identity of the Hobbit fossils fit into broader, general questions surrounding paleoanthropology.

The authors chose to focus the majority of their efforts on the very narrow question: "Is 'The Hobbit' a separate species – namely, *Homo floresiensis*?" with the implication that the answers to broader, more intellectually interesting questions, simply exist as self-evident. It is as if answering the authors' species-level question will allow the reader to reason, Aristotelian-style, from some set of paleoanthropological First Principles and arrive at the authors' conclusion. They work through their argument—that the Hobbit fossils do not constitute a new species—in painstaking detail, documenting their case and concerns with papers, measurements, and emails (reprinted verbatim in their text, which comes across to the reader as petty, rather than substantiating verification) as evidence toward their argument.

This actually brings the audience to an interesting point. In *The Hobbit Trap*, the authors make several interesting claims about what it is to "do science" and, specifically, what it is to do "good science." Henneberg, Eckhardt, and Schofield express concern that paleoanthropology, as a discipline, is not fundamentally engaged with doing good science. Instead, they claim, paleoanthropology panders to the academically politic forces of grant-grubbing as validation for scientific endeavors and interpretation of fossils. Certainly, the authors' concerns of making sure the broader community is engaged in good science ought to resonate well and serve as a reminder that good science is an ongoing process. To this end, they adopt a loose definition of Occam's Razor as the working, pragmatic definition of good science and argue that their explanation best fits with that explanatory schema, therefore, their interpretation

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must be correct. If they were more willing to unpack the complexities surrounding some of their claims and philosophical references, they would be able to provide a more satisfying argument. Henneberg, Eckhardt, and Schofield strive to create an argument that their concerns about the question of the Hobbit species are intellectually legitimized through specific references to popular philosophers of science. While commendable to reach to a broader literature outside of paleoanthropology, the authors' attempts seem to fall flat against their very narrow question of species identity as they simply throw in a few references to Karl Popper and Thomas Kuhn, and allude to a little Paul Feyerbend for good measure.

The most telling aspect about the authors' overall argument of the species' validity comes to the reader by way of historical analogy, drawing on the entrenched "type narratives" of discovery and interpretation in paleoanthropology. They remind the reader that the history of paleoanthropology is filled with explanatory schema that come into fashion and ultimately fade with newfound fossils or further study. They remind the reader of the historical popularity of Rama's Ape and the perils of Piltdown, describing both as compelling and cautionary tales in paleoanthropology's intellectual history about the risks of completing committing oneself to explanations that do not hold to be consistent with additional study (Lewin 1997; Reader 1989).

Although their argument by historical analogy is a useful rhetorical twist, what is most interesting are their choices of historical examples. While careful to champion Rama's Ape and Piltdown, it is curious that the authors opt to not include the story of discovery of Neanderthal fossils and early attempts to make sense of Neanderthals as a species. Indeed, the discovery and interpretation of those early Neanderthal fossils have oddly interesting parallels with that of the Flores fossils. In many ways, the Flores Hobbit has replayed the narrative, a paradigm, of the Neanderthal skull's story, both in terms of discovery and in the terms of debate within the scientific establishment—an intellectual tension between two opposing schema of explanation.

Natural historians, following the 1856 discovery of a fossil specimen in Neander Valley, tried to make intellectual sense of the Neanderthal skull—to decide whether the fossil represented a variant of humans or something else. Some said yes, that the variation and cranial morphology were clearly different from that of *Homo sapiens*. Others argued that that the differences in cranial capacity were easily explained by pathological variation and ascribed the differences in the crania to a "malformed or diseased Cossack soldier;" on one hand, a new species, and, on the other hand, a pathological representative of a broad and varying population (Reader 1989). The parallels between the Neanderthal and Flores discoveries and arguments of interpretation would have added a particularly interesting historical analogy within *The Hobbit Trap.* Indeed, the story of discovery and subsequent interpretations as its own recursive story will prove interesting, long after the single or multiple species debate has been hashed out to the discipline's pragmatists and authors' satisfaction. It would seem that the Hobbit fossils lend a sense of credibility to Ernst Haeckel's formulation—at least when applied to the history of ideas. The ontogeny of discourse about Flores has recapitulated the phylogeny of the narrative of ancestral discovery.

Arguably, the 2004 discovery of the Flores fossils was genuinely a paleoanthropological sensation. In many ways, the find confirmed those type narratives in the intellectual history of paleoanthropology as a type of story about discovery and interpretation. In short, although *The Hobbit Trap* is, itself, primarily focused on the narrow question of the legitimacy of the species, the book alludes to several broader questions about the nature of paleoanthropology as a discipline.

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