

## What Will We Do? Well, What Have We Done?

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### **Experimenting with Humans and Animals: From Galen to Animal Rights**

By Anita Guerrini

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“To understand where we are going,” Anita Guerrini writes, “we need to understand from where we have come.”<sup>1</sup> And so it is, Guerrini contends, with respect to the issue of human and nonhuman animal experimentation. For better or for worse, experimentation on both human and nonhuman animals has played a significant role in the Western world’s attempt to understand the anatomical and physiological features of such beings and, ultimately, discover remedies for a whole host of physical ailments. In case one needs to be reminded of this fact, one should pick up a copy of Guerrini’s *Experimenting with Humans and Animals: From Galen to Animal Rights*. Spanning antiquity to today, *Experimenting* consists of a collection of historical episodes, each of which pertains to some of the Western world’s major figures involved in human and nonhuman experimentation as well as the grisly details of their experiments. “Taken together,” Guerrini writes, “[these historical episodes] demonstrate the development of a central idea in Western thought: challenging nature in order to reveal the truth.”<sup>2</sup> Generally speaking, the selected historical episodes involve individuals who are so eccentric (including Galen, William Harvey, and Vesalius), and experiments that are so shocking (see below), that Guerrini’s book reads like a work of historical fiction and, in turn, is highly engaging. This, of course, is not to be understood as a challenge to the work’s historical veracity; rather, it is to be understood as a tribute to the captivating nature of the subject matter as well as the way in which that subject matter is presented.

Consider, for example, the following account of the physician William Harvey (1578-1657), one which epitomizes the historical-fiction quality of the book:

It was a chilly winter day early in 1621. The doctor strode into the room and flung back the shutters, letting in the thin sunlight. The room was cold but he did not notice as he moved rapidly about, setting out tools and instruments. He walked over to a stack of cages and opened the topmost one, gently pulling out a large rabbit. Its nose twitched as the doctor carefully tied it to a board with holes drilled in it through which he passed the thin cord that bound the animal’s limbs. The rabbit lay on its back, blinking and quivering, its limbs splayed, its chest rising and falling quickly. The doctor took a sharp, thin-bladed knife and with practiced skill laid open the rabbit’s chest. The animal struggled and panted, but the bonds held fast. The doctor sliced through the breastbone and spread open the ribcage with his strong fingers, exposing the rapidly beating heart. He cut a

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<sup>1</sup> Anita Guerrini, *Experimenting with Humans and Animals: From Galen to Animal Rights* (Baltimore, MD: The Johns Hopkins University Press, 2003), 5.

<sup>2</sup> *Ibid.*, 1.

strong thread of silk and tied it around the rabbit's aorta, watching with satisfaction as the animal's heart grew engorged with blood while the vessel beyond the ligature became white. He delicately sliced the aorta and saw the blood spurt out in regular pulses. As the rabbit slowly expired, the doctor seized a notebook and began to write, looking up to observe the rabbit's heart as it slowed.<sup>3</sup>

Guerrini goes on to tell the reader that Harvey "repeated this and other experiments hundreds of times, on dozens of different animals, to prove his theory that the blood circulated through the body."<sup>4</sup> Perhaps unsurprisingly, Harvey viewed animals as serving "a purely instrumental function, and if the question of cruelty occurred to him, he never expressed it."<sup>5</sup> Accordingly, he frequently dissected the bodies of deer and performed numerous vivisections on dogs, cats, and, of course, rabbits.<sup>6</sup> Harvey's view of animals as functioning as mere instruments was so uncompromising that even his wife's grief over the loss of her beloved pet parrot "did not prevent her spouse from dissecting it."<sup>7</sup> And Harvey's quest for truth did not stop with experimenting with animals; he dissected human bodies as well. Indeed, Harvey "did not hesitate to dissect the body of his own father (in front of an audience) in his quest for knowledge."<sup>8</sup> All this to say, with a cast of characters including the likes of William Harvey, with descriptions of such appalling experiments, and with fascinating accounts of quite unusual research methods (such as the hosting of "resurrection parties," which consisted of robbing new graves to obtain a fresh body for dissection), one cannot help but find *Experimenting* to read like a work of historical fiction and, accordingly, to be highly engaging.

But being engaging isn't the book's only virtue. It also reminds us of and/or underscores a number of important issues closely tied to the contemporary debate on human and nonhuman animal experimentation. First, it reminds us that many of the obvious facts that are constitutive of contemporary Western science (and, in particular, medicine) haven't *always* been so obvious. For example, it's obvious to us today that blood circulates through the body, but such hasn't always been obvious. And clearly whether blood does so circulate cannot be determined *a priori*; such must be settled on empirical grounds. Hence Harvey's decision to vivisect cats, dogs, and rabbits. It's also obvious to us today that the severing of the spinal cord results in (a degree of) paralysis, but this hasn't always been obvious. Hence Galen's decision to "cut the spinal cord in pigs, goats, and apes, noting the degree of paralysis produced."<sup>9</sup> Thus, for better or for worse, the state of contemporary Western science is causally connected to ghastly experiments, such as those described above. And insofar as one is grateful for the fact that, generally speaking, the state of Western science is superior today to what it was in the past, then one is that much closer to embracing what many (including myself) deem quite troubling, namely, the view that such experiments were (and are) justified on consequentialist grounds. *Experimenting*, then, forces individuals like myself to

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<sup>3</sup> Ibid., 23.

<sup>4</sup> Ibid., 23.

<sup>5</sup> Ibid., 31.

<sup>6</sup> Ibid., 31.

<sup>7</sup> Ibid., 31.

<sup>8</sup> Ibid., 31.

<sup>9</sup> Ibid., 16.

acknowledge a tension produced by: (1) being grateful for the superior state of contemporary Western science, (2) recognizing that the state of contemporary Western science is causally connected to such ghastly experiments, and (3) resisting the view that such experiments were (and are) justified on consequentialist grounds.

Second, *Experimenting* highlights the significant influence religion has had on our views regarding human and nonhuman animal experimentation. Indeed, the relation between religion and the Western world's views regarding human and nonhuman animal experimentation is one of the many underlying themes in *Experimenting*. Consider the following examples. Some early blood transfusion experimenters held that "the blood of young calves and lambs was purer than human blood, less tainted by human passions and vices" since the blood of the lamb symbolized the pure healing blood of Christ.<sup>10</sup> Malebranche believed that animals could not suffer, since human suffering "could be attributed to the original sin of Adam, which condemned all of humanity," and animals were not descended from Adam.<sup>11</sup> In a pro-animal vein, John Ray held that animal suffering was immoral, since animals "existed of themselves, not merely for our use, and expressed God's creative power."<sup>12</sup> And William Douglass argued that "inoculation implied a lack of trust in God's overriding plan, and amounted to an attempt to supercede God's authority."<sup>13</sup> *Experimenting*, then, clearly depicts the significant role religion has played historically in shaping the Western world's views regarding human and nonhuman animal experimentation and, in turn, reminds us to carefully consider the degree to which religion influences our *own* views on such experimentation.

Third, *Experimenting* reminds us of and underscores the old adage: Those who do not learn from history are doomed to repeat it. According to Guerrini, the suffering of nonhuman animals was a moral issue in antiquity, lost its status as a moral issue between antiquity and (roughly) the seventeenth century, whereupon it regained its status as a moral issue. For those of us who currently deem the suffering of nonhuman animals to be a moral issue, this historical fact is quite unsettling, since it demonstrates that currently deeming the suffering of nonhuman animals to be a moral issue alone does not ensure that it will continue to be deemed as one. Hence, even though the issue of animal suffering is currently a moral one, it may not be one tomorrow. Indeed, I would submit that it *will* not be a moral issue tomorrow if, as the old adage states, we do not learn from history.

Finally, and perhaps most importantly, *Experimenting* draws attention to what is often overlooked in the contemporary debate on human and nonhuman animal experimentation: that one should not confuse scientists with ethicists. As is made abundantly clear in *Experimenting*, scientists who perform experiments upon human or nonhuman animals face and make decisions of significant ethical import. But this, in itself, does not entail that they are properly trained to do so. Indeed, some of the "arguments" invoked by *Experimenting*'s cast of characters in favor of such experimentations serve as positive evidence that these scientists were *not* properly trained to do so. Thus, *Experimenting* reminds us of the importance of distinguishing between

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<sup>10</sup> Ibid., 41.

<sup>11</sup> Ibid., 44.

<sup>12</sup> Ibid., 47.

<sup>13</sup> Ibid., 54.

those who happen to be making the decisions of significant ethical import, and those who are properly trained to make such decisions.

“To understand where we are going we need to understand from where we have come.” For those interested in understanding where we are going with regard to human and nonhuman animal experimentation, Guerrini’s highly engaging, informative treatment on the history of the Western world’s experimentation with humans and nonhuman animals is strongly recommended.