Word for Word

The Final Word on sacrificed, Killed, or Euthanized

The humane treatment of laboratory animals is a legal and moral obligation and includes minimizing their pain and distress when they reach study endpoints. Choosing how to describe the killing of research animals in scientific publications can be complicated by the history, multiple meanings, or common usage of a word; by the need for clarity and concision; and by the expectations of audiences.

The use of the word sacrifice to describe the killing of lab animals began in the early 20th century. In historic usage, a sacrifice is a religious offering to a deity or, by extension, the act of “surrendering something valuable for a greater good.” 1 Thus, the use of sacrificed in biomedical research could be seen as a metaphor in which laboratory animals serve as offerings to the greater good of improving human health. Although scientific writing should ideally eschew the use of metaphors, sacrifice has come into widespread usage in the scientific literature. In fact, Merriam-Webster gives “to kill (an animal) as part of a scientific experiment” as one of the definitions of sacrifice, 2 and our recent search of PubMed for the term sacrificed retrieved over 50,000 results.

However, the AMA Manual of Style recommends that authors use the more direct term killed rather than sacrificed because sacrificed is a euphemism—a way of softening the expression of something unpleasant. 3 For the same reason, the AMA Manual prefers the wording the patient died over the wording the patient passed away.

The professional and governmental bodies that oversee the welfare of research animals in the United States mostly use the term euthanized. AAALAC International, the organization that accredits research animal facilities, defines euthanasia as “the act of humanely killing animals by methods that induce rapid unconsciousness and death without pain or distress.” 4 The Office of Laboratory Animal Welfare of the National Institutes of Health, the guidelines of the American Veterinary Medical Association, and the ARRIVE guidelines also use the terms euthanasia and euthanized.

In short, sacrificed, killed, and euthanized are all acceptable ways to describe the humane killing of lab animals. Authors should, however, consider their audience when they choose one of these terms. For broad audiences that may include nonscientists, humanely killed or euthanized may be preferable, as these audiences may not be familiar with the scientific usage of sacrificed.

References:

--Amy Ninetto