



Contents lists available at ScienceDirect

Evolution and Human Behavior

journal homepage: www.elsevier.com/locate/ens

Review Article

Man the Hunter or man the hunter? Terminological confusion, gendered hunting, and gender bias[☆]Randall Haas^{a,*}, Tammy Buonasera^b, Jennifer Chen^c, Jelmer Eerkens^d, Ashley Smallwood^e, James Watson^f^a University of Wyoming, USA^b University of Alaska Fairbanks, USA^c Rochester Institute of Technology, USA^d University of California, Davis, USA^e University of Louisville, USA^f University of Arizona, USA

ARTICLE INFO

Keywords:

Gendered hunting

Foragers

Division of labor

Archaeology

In “The Meanings and Dividends of Man the Hunter,” Venkataraman et al. (2026) express concern with four recent studies of female hunting (Anderson, Chilczuk, Nelson, Ruther, & Wall-Scheffler, 2023; Haas et al., 2020; Lacy & Ocobock, 2024; Ocobock & Lacy, 2024). At the outset, we note that contrary to media portrayal, this is not a debate about whether women hunt. Venkataraman et al. (2026, p. 16) state in no uncertain terms that “Women do hunt” [see also, Venkataraman et al., 2024]. Rather, the authors of Meanings and Dividends perceive that the “...recent series of academic articles...have sought to revise...” *Man the Hunter*. The authors contend that *Man the Hunter* is much more than a hypothesis about male hunting. Rather, its architects long ago recognized the importance of female roles in human economies. Recent attempts at revision are therefore misguided, stemming from a fundamental misunderstanding of *Man the Hunter*, according to Meanings and Dividends.

We commend Venkataraman and colleagues for their efforts to logically validate recent research. Such theoretical exercises are a cornerstone of the scientific process. However, the authors misidentify the crux of the matter. The central goal of the four papers of their concern is not to revise *Man the Hunter* but rather to evaluate and update models of gendered hunting practice in various cultural contexts. Haas et al. (2020) discovered that female individuals of the early Americas

were more likely than expected to have been interred with hunting tools, and microwear analysis on one of those assemblages confirms the tools were, in fact, used as projectiles (Smallwood, Haas, & Jennings, 2023). Wall-Scheffler et al. (Anderson et al., 2023) observed that female hunting was recorded more frequently in ethnographic studies than previously recognized. Lacy and Ocobock's (2024) review of global archaeology finds that evidence of female hunting was more prevalent and evidence of male hunting less prevalent than previously thought. Ocobock and Lacy (2024) show that females are, on average, biologically better suited to persistence hunting than males.

Common to each of these studies, and building on previous theoretical work (Conkey & Spector, 1984; Gero & Conkey, 1991; Slocum, 1975; Sterling, 2014), is the recognition that interpretive bias persists among archaeologists and other anthropologists in assigning gendered subsistence roles in the past. This bias is transmitted—and may even be amplified—from one intellectual generation to the next by the use of oversimplified truisms such as men hunt and women gather. To maintain our intellectual curiosity and consider potentials of human behavior among vastly different conditions that existed in the past, we must periodically evaluate the basis of our assumptions and received wisdom.

Indeed, there are good reasons to suppose that gendered subsistence roles were less circumscribed in the past when fewer humans were

[☆] This article is part of a Special issue entitled: ‘Man the Hunter’ published in Evolution and Human Behavior.

* Corresponding author.

E-mail address: whaas@uwyo.edu (R. Haas).

<https://doi.org/10.1016/j.evolhumbehav.2026.106906>

Received 26 April 2026; Accepted 11 May 2026

1090-5138/© 2026 Published by Elsevier Inc.

present on the landscape and smaller group sizes may have favored more inclusive workgroups (Mcguire & Hildebrandt, 1994). In particular, female participation in large-mammal hunting may have been favored when residential mobility was high and regularly brought both females and males into close proximity with large mammals (Goodman, Griffin, Estioko-Griffin, & Grove, 1985; Haas, 2024; Haas et al., 2020; Smallwood et al., 2023). It is also true that females hunt in many different ways among recent hunter-gatherers and that men both forage for and process plants (Anderson et al., 2023; Bean & Saubel, 1972; Brumbach & Jarvenpa, 1997). Despite existence of this knowledge, the strong tendency to explain away evidence of less structured, or differently structured, gender roles in the past persists in archaeology (Buonasera, 2013; Lacy & Ocobock, 2024). Again, theoretical validation of previous research is critical to the scientific process, and recent investigations all recognize contemporary gender bias—i.e., androcentric positionality—as continuing to confound our understanding of gendered hunting practice in the past. Failure to recognize such bias is to incur negative dividends.

If Haas, Lacy, Ocobock, Wall-Scheffler, and colleagues can be accused of something other than attempts of revising *Man the Hunter*, it could be terminological imprecision in referring to “*Man the Hunter*” when what was intended was “man the hunter.” The focus on the latter is clear from even a superficial reading of their work. The title of Haas et al., “Female hunters of the early Americas,” clearly expresses concern with gendered hunting practice, not *Man the Hunter*. Although Wall-Scheffler et al.’s (Anderson et al., 2023) main title, “The myth of Man the Hunter,” suggests concern with *Man the Hunter*, their subtitle, “Women’s contribution to the hunt across ethnographic contexts,” clarifies a focus on gendered hunting practice. Lacy and Ocobock’s main title for their sister papers, “Woman the hunter” (emphasis added), implies a central interest is gendered hunting practice. A closer reading of the four articles further shows that the central interest of each is gendered hunting practice—not *Man the Hunter*.

At the core of this ostensible debate lies simple conflation of “*Man the Hunter*” and “man the hunter.” Whereas the former is a conference, book (Lee & DeVore, 1968), and theoretical moment in the 1960s; the latter is the basic idea that hunting is a male activity. Venkataraman and colleagues describe *Man the Hunter* in lengthy detail, which does not need repeating here. The meaning of *man the hunter* also requires little treatment. Its meaning and the meaning of its constituent words are basic, precise, unambiguous, and—we would surmise—cross-cultural and among the terms of basal human language. *Man the hunter* is thus a clear expression of a specific form of gendered labor practice in which the males of a community tend to hunt, and conversely, women tend not to hunt. This basic idea serves as a hypothesis for investigations of gendered hunting practice in human societies. It is a hypothesis that captures tendencies of gendered hunting practice in contemporary Western cultures and forager ethnography (Anderson et al., 2023), for example. What Haas, Lacy, Ocobock, Wall-Scheffler, and colleagues all show is that this man-the-hunter hypothesis, or at least more quantitatively specific versions of it, do not hold up against empirical and theoretical evidence in certain cultural contexts.

Despite its effort to “...improv[e] scientific and popular discourse regarding Man the Hunter” (Venkataraman et al., 2026, p. 1), Meanings and Dividends only muddies the waters for those interested in models for the evolution of gendered hunting practice. Had the authors recognized simple terminological imprecision at the root of their stated concern about recent studies, they might have avoided a theoretical goose chase into the historical forest of *Man the Hunter*, which arrives in a strange land where *Man the Hunter* means human behavioral ecology.

Although the history and meanings of *Man the Hunter* are interesting and important in their own right, and although we recognize a number of potential problems with Meanings and Dividends’ characterization of *Man the Hunter*, what we would like to do with the remainder of our limited space is to recenter the conversation on man the hunter. Venkataraman et al. (2024, p. 7) may argue that “...to focus on hunting at

the expense of other critical activities...is to downplay the complexity, and thereby the importance of women’s roles in the foraging lifeway,” but such analytical eclecticism is actually antithetical to the scientific process, which demands carefully controlled analysis of a system’s constituent parts toward understanding the whole. In this spirit, we ask, *what do Venkataraman and colleagues propose drives the evolution of gendered hunting practice in human societies?* Amid their more than 15,000 words of text (excluding references cited), they devote few to this question. In one short paragraph, they cite Rose’s and Murdock’s observations of male-biased hunting among ethnographic foragers and Watanabe’s (1968) expression of concern for overly rigid models of gendered hunting. Beyond such factual statements, Venkataraman and colleagues do not derive any conclusions about the nature of gendered hunting practice nor its drivers.

In their brief discussion of Early and Middle Pleistocene *Homo*, they cite Bird and Coddling (2015) in proposing that sexual division of subsistence labor emerged as a strategy of subsistence flexibility and “increased efficiency” during a period of climatic variability (Venkataraman et al., 2026, p. 11). Elsewhere, Venkataraman and an overlapping cast of colleagues (Venkataraman et al., 2024, p. 1) similarly assume that sexual division of labor is “complementary.” Curiously, Bird and Coddling actually critique efficiency and complementarity models as insufficient to account for sexual division of labor. Nonetheless, we can extract environmental variability and foraging efficiency as two hypothetical drivers of gendered hunting considered in Meanings and Dividends.

Later, Meanings and Dividends implies that gendered hunting is “not real,” stating, “Women do hunt. But the real division of labor is not hunting vs. gathering but risky vs. non-risky foraging.” We doubt that the authors intend to suggest that gendered hunting is not real. Rather, the statement intends to identify the well-known hypothesis that risk drives gendered hunting practice (Bird & Bird, 2008) and derives from Kelly’s (2013), p. 218–224) review of forager ethnography. Thus with a little work, we are able to add risk to the candidate set of hypotheses that the authors consider.

Given this limited treatment in Meanings and Dividends, we can turn to the authors’ other works for additional insight into their thinking on gendered hunting practice. Because we are archaeologists, we look to the work of Robert Kelly, the one archaeologist author of Meanings and Dividends. As for the question of variability in gendered hunting, he offers something of a steady state man-the-hunter model when he reflects,

After I wrote a book about modern hunter-gatherers, a colleague asked me if there was anything about them that I thought could be extrapolated back in time. Very few things, I replied, but one was the division of labor. Among living hunter-gatherers, men hunt large game, and women collect plant food, small game, and shellfish (Kelly, 2016, p. 34).

Elsewhere, Kelly (2013, p. 218) offers a less rigid account, asserting that “In fact, women in foraging societies do hunt small game regularly and, occasionally, large game.” His discussion of various ethnographic examples led him to conclude that women hunt when prey is close to camp, childcare is available, or hunting is communal. These conclusions have further led him to speculate that among past foragers, “...women... could have been armed with atlatls and used to drive and even kill game” [(Kelly, 2022, p. 49), see also (Kelly, 2024)]. His various treatments thus identify prey proximity, biological constraint, alloparenting, and hunting strategy as possible drivers of variation in gendered hunting practice. His more nuanced views furthermore align with the observations of Haas, Lacy, Ocobock, Wall-Scheffler, and colleagues who also identify variability in female hunting.

Looking beyond substantive models, Kelly has also acknowledged the need to be aware of cultural bias when interpreting gender roles in the past. In their popular textbook, *Archaeology*, Kelly and Thomas reflect on an old debate about the interpretation of atlatl parts interred with female and male individuals at the mid-Holocene site of Indian

Knoll in Kentucky.

...[B]ecause [the archaeologist] Webb [ca. 1946] could not conceive of women as hunters, he searched for another explanation for the atlatl in women's graves. Although Webb's final explanation could still be right, his underlying logic demonstrates the caution needed to detect our own cultural biases, especially when it comes to matters of gender roles.... Do we really need to know whether men or women did the hunting, or plant gathering, or other tasks? Is this concern simply an imposition of the current American culture or political correctness? We don't think so... (Kelly & Thomas, 2016, p. 254).

As of 2016, Kelly appears to have recognized the confounding effects of gender bias. Kelly, Venkataraman, and colleagues also recognize this more recently (Venkataraman et al., 2024, p. 2.6). Kelly's thinking thus further aligns with that of Haas, Lacy, Ocobock, Wall-Scheffler, and colleagues who, as discussed earlier, also consider such bias effects on model selection.

The foregoing analysis of Meanings and Dividends and the articles critiqued therein reveal a clear case of talking past one another, founded on simple terminological imprecision wherein *Man the Hunter* is conflated with *man the hunter*. Recognizing this error and that all scholars under consideration here share in the blame, we reject the claim that recent research attempts to revise *Man the Hunter*. Haas, Lacy, Ocobock, Wall-Scheffler, and colleagues' recent research was concerned with gendered hunting practice in human societies, and all scholars, including Venkataraman and colleagues, recognize variability and the need to account for analytical bias.

Moving forward, we urge scholars interested in gendered labor to sit at the same table (there should be other tables for the history of *Man the Hunter* and any number of forager behaviors of interest) where they may consider and clarify candidate models, agree upon empirical predictions, and ultimately test those predictions. Venkataraman and colleagues allude to hypotheses of foraging efficiency, environmental change, risk, and biological constraint. Kelly (2022) adds prey proximity, alloparenting, and hunt strategy. Others have considered technological change, particularly shifts among spear, atlatl, and archery technologies (Bebber, Buchanan, Eren, Walker, & Zirkle, 2023; Breslawski, Etter, Jorgeson, & Boulanger, 2018; Grund, 2017; Haas, 2024; Whittaker & Kamp, 2006). Some of us have proposed that shifts from more-residential to more-logistical mobility could be expected to widen gendered divisions of subsistence labor (Haas, 2024; Haas et al., 2020; Smallwood et al., 2023). We could suppose that any combination of these and other exogenous and endogenous factors such as costly signaling (Bird & Codding, 2015), group size (McGuire & Hildebrandt, 1994), colonialism, and cultural transmission processes could conceivably affect greater or lesser degrees of gendered hunting in human societies. And of course, we must remain ever vigilant of the effects of analytical bias in research design and model selection.

Females and males, women and men all hunt in some times and places. The salient questions are, *what is the variation in gendered hunting practice, and what drives that variation?* Minor theoretical tangents aside, recent and past archaeological, biological, ethnographic, and experimental studies have made significant strides, but clear answers remain elusive. With a healthy dose of skepticism, we look forward to continuing the conversation and to the next creative study that further advances our understanding of the evolution of gendered hunting practice in human societies.

CRedit authorship contribution statement

Randall Haas: Conceptualization, Writing – original draft, Writing – review & editing. **Tammy Buonasera:** Writing – original draft, Writing – review & editing. **Jennifer Chen:** Writing – review & editing. **Jelmer Eerkens:** Writing – review & editing. **Ashley Smallwood:** Writing – review & editing. **James Watson:** Writing – review & editing.

Declaration of competing interest

None.

Acknowledgments

We thank Bob Kelly for sharing and considering ideas and Colin King, Sarah Lacy, Marcie Myers, and Cara Ocobock for helpful feedback on a draft of this Comment.

References

- Anderson, A., Chilczuk, S., Nelson, K., Ruther, R., & Wall-Scheffler, C. (2023). The myth of man the hunter: Women's contribution to the hunt across ethnographic contexts. *PLoS One*, 18, Article e0287101. <https://doi.org/10.1371/journal.pone.0287101>
- Bean, L. J., & Saubel, K. S. (1972). *Temalpakh: Cahuilla Indian knowledge and usage of plants*. Malki Museum Press.
- Bebber, M. R., Buchanan, B., Eren, M. I., Walker, R. S., & Zirkle, D. (2023). Atlatl use equalizes female and male projectile weapon velocity. *Scientific Reports*, 13, 13349. <https://doi.org/10.1038/s41598-023-40451-8>
- Bird, R. B., & Bird, D. W. (2008). Why women hunt: Risk and contemporary foraging in a Western Desert aboriginal community. *Current Anthropology*, 49, 655–693. <https://doi.org/10.1086/587700>
- Bird, R. B., & Codding, B. F. (2015). The sexual division of labor. In R. Scott, & S. Kosslyn (Eds.), *Emerging trends in the social and behavioral sciences* (pp. 1–16). Wiley. <https://doi.org/10.1002/9781118900772.etrds0300>
- Breslawski, R. P., Etter, B. L., Jorgeson, I., & Boulanger, M. T. (2018). The atlatl to bow transition: What can we learn from modern recreational competitions? *Lithic Technology*, 43, 26–37. <https://doi.org/10.1080/01977261.2017.1416918>
- Brumbach, H. J., & Jarvenpa, R. (1997). Ethnoarchaeology of subsistence space and gender: A subarctic Dene case. *American Antiquity*, 62, 414–436. <https://doi.org/10.2307/282163>
- Buonasera, T. Y. (2013). More than acorns and small seeds: A diachronic analysis of mortuary associated ground stone from the south San Francisco Bay area. *Journal of Anthropological Archaeology*, 32(2), 190–211. <https://doi.org/10.1016/j.jaa.2013.01.003>
- Conkey, M. W., & Spector, J. D. (1984). Archaeology and the study of gender. *Advances in Archaeological Method and Theory*, 7, 1–38. <https://doi.org/10.1016/b978-0-12-003107-8.50006-2>
- Gero, J. M., & Conkey, M. W. (Eds.). (1991). *Engendering archaeology*. Blackwell Publishers.
- Goodman, M. J., Griffin, P. B., Estioko-Griffin, A. A., & Grove, J. S. (1985). The compatibility of hunting and mothering among the agta hunter-gatherers of the Philippines. *Sex Roles*, 12, 1199–1209. <https://doi.org/10.1007/bf00287829>
- Grund, B. S. (2017). Behavioral ecology, technology, and the organization of labor: How a shift from spear thrower to self bow exacerbates social disparities. *American Anthropologist*, 119, 104–119. <https://doi.org/10.1111/aman.12820>
- Haas, R. (2024). The effect of baby wearing on atlatl performance. *PaleoAmerica*, 10, 287–299. <https://doi.org/10.1080/20555563.2024.2434360>
- Haas, R., Watson, J., Buonasera, T., Southon, J., Chen, J. C., Noe, S., Smith, K., Llave, C. V., Eerkens, J., & Parker, G. (2020). Female hunters of the early Americas. *Science Advances*, 6, Article eabd0310. <https://doi.org/10.1126/sciadv.abd0310>
- Kelly, R. L. (2013). *The lifeways of hunter-gatherers: The foraging spectrum*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139176132>
- Kelly, R. L. (2016). *The fifth beginning - what six million years of human history can tell us about our future*. University of California Press.
- Kelly, R. L. (2022). What good is archaeology? Archaeological and ethnographic scales. In T. Widlok, & M. D. Cruz (Eds.), *Scale matters: The quality of quantity in human culture and sociality* (pp. 39–53). Transcript Verlag. <https://doi.org/10.14361/9783839460993>
- Kelly, R. L. (2024). Comment: Why do humans hunt cooperatively? *Current Anthropology*, 65, 876–921. <https://doi.org/10.1086/732354>
- Kelly, R. L., & Thomas, D. H. (2016). *Archaeology*. Cengage.
- Lacy, S., & Ocobock, C. (2024). Woman the hunter: The archaeological evidence. *American Anthropologist*, 126, 19–31. <https://doi.org/10.1111/aman.13914>
- Lee, R. B., & DeVore, I. (Eds.). (1968). *Man the hunter*. Aldine de Gruyter.
- McGuire, K. R., & Hildebrandt, W. R. (1994). The possibilities of women and men: Gender and the California milling stone horizon. *Journal of California and Great Basin anthropology*, 16, 41–59.
- Ocobock, C., & Lacy, S. (2024). Woman the hunter: The physiological evidence. *American Anthropologist*, 126, 7–18. <https://doi.org/10.1111/aman.13915>
- Slocum, S. (1975). Woman the gatherer: Male bias in anthropology. In R. R. Reiter (Ed.), *Toward an anthropology of women* (pp. 36–50). Monthly Review Press.
- Smallwood, A., Haas, R., & Jennings, T. (2023). Lithic usewear confirms the function of Wilamaya Patjxa projectile points. *Scientific Reports*, 13, 19044. <https://doi.org/10.1038/s41598-023-45743-7>
- Sterling, K. (2014). Man the hunter, woman the gatherer? The impact of gender studies on hunter-gatherer research (a retrospective). In V. Cummings, P. Jordan, & M. Zvelebil (Eds.), *The Oxford handbook of the archaeology and anthropology of hunter-gatherers* (pp. 1–28). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199551224.013.032>

- Venkataraman, V. V., Hagen, E. H., Stibbard-Hawkes, D., Hames, R., Lew-Levy, S., Jang, H., ... Kelly, R. L. (2026). The meanings and dividends of man the hunter. *Evolution and Human Behavior*, 47, Article 106840. <https://doi.org/10.1016/j.evolhumbehav.2026.106840>
- Venkataraman, V. V., Hoffman, J., Farquharson, K., Davis, H. E., Hagen, E. H., Hames, R. B., ... Stibbard-Hawkes, D. N. E. (2024). Female foragers sometimes hunt, yet gendered divisions of labor are real: a comment on Anderson et al. (2023). The myth of man the hunter. *Evolution and Human Behavior*, 45, Article 106586. <https://doi.org/10.1016/j.evolhumbehav.2024.04.014>
- Watanabe, H. (1968). Subsistence and ecology of northern food gatherers with special reference to the Ainu. In R. B. Lee, & I. DeVore (Eds.), *Man the hunter* (pp. 69–77). Aldine de Gruyter.
- Whittaker, J. C., & Kamp, K. A. (2006). Primitive weapons and modern sport: Atlatl capabilities, learning, gender, and age. *Plains Anthropologist*, 51, 213–221. <https://doi.org/10.1179/pan.2006.016>