# The Grandeur of Biopolitical Science

Larry Arnhart

John Hibbing's essay is a persuasive defense of biopolitical research. I argue, however, that Hibbing does not go far enough in recognizing the broad vision of biopolitical science as a science of political animals. We need to see this as a science that moves through three levels of deep history: the natural history of the political species, the cultural history of a political community, and the biographical history of political actors in a community. I illustrate this by discussing Abraham Lincoln's Emancipation Proclamation at these three levels of biopolitical science.

ohn Hibbing is timid. He persuasively defends biopolitical research against the misconceptions of its critics. For that reason, this essay will surely become one of the most cited articles on biopolitics. But despite my general agreement, I disagree with how he responds to the fifth misconception: "Political culture is too idiosyncratic to succumb to biology" (p. 480). His response shows his diffidence in refusing to go all the way in embracing biopolitics as a comprehensive theory for political science.

If political science is ever to become a true science, it must become a biopolitical science of political animals. Biopolitical science would incorporate all the traditional fields of political science within a biological science of politics.

Hibbing is hesitant about promoting this expansive intellectual project. To calm those traditional political scientists who fear biopolitics as a threat to their professional careers, he suggests that they have nothing to fear, because biopolitics is just one more specialized tool in the political scientist's tool box. Hibbing argues that biopolitics is limited to studying the "bedrock dilemmas of politics" that are universal to all political communities, leaving political scientists to study the "cultural variations" or "issues-of-the-day" in politics without any grounding in biological science. While biology can illuminate "cross-polity commonality," biology has no application to "cultural differences" in politics.

A more comprehensive view of biopolitics is suggested by the title of a book to which Hibbing contributed: *Man Is by Nature a Political Animal.* This points back to Aristotle as the first biopolitical scientist, who saw that human beings as political animals by nature could be compared with other political animals, such as ants, bees, wasps, and

Larry Arnhart is a Presidential Research Professor of Political Science at Northern Illinois University. cranes. Although he did not identify chimpanzees as political animals, Aristotle did study them as the animals that most resembled human beings. While he did not develop a theory of biological evolution, he did suggest that a true science of politics might have to be a biological science of political animals. A modern biopolitical science would fulfill the promise of Aristotle's insight.<sup>2</sup>

That biological science of politics would explore the deep evolutionary history of politics over millions of years, including not only human beings but also other political animals. This evolutionary political history would move through three levels of study: the natural history of the species, the cultural history of a community, and the biographical history of individuals within a community. We must understand the unity of political universals, the diversity of political cultures, and the individuality of political judgments.

So, for example, if we wanted to understand Abraham Lincoln's Emancipation Proclamation of January 1, 1863, we would need to understand the natural history of politics and slavery, the cultural history of politics and slavery in America, and the biographical history of Lincoln as an ambitious political actor who found glory in becoming the Great Emancipator.<sup>3</sup>

## **Natural History**

Every species of political animals has a universal repertoire of behavioral propensities shaped by a natural history of genetic evolution through at least three kinds of selection—individual selection, group selection, and collateral kin selection. Through individual selection, individuals cooperate for individual survival and reproduction. Through group selection, individuals cooperate within their group to outcompete other groups. Through collateral kin selection, individuals cooperate to spread genes shared by collateral kin.

As a product of this natural history, the social insects (including ants, bees, wasps, and termites) are naturally

doi:10.1017/S1537592713000984 © American Political Science Association 2013 inclined to many forms of complex social behavior, such as child care, eugenics, social division of labor, fighting over social dominance, group hunting, warfare, slavery, agriculture, animal husbandry, and complex forms of communication and social learning.

Chimpanzees and other primates are naturally inclined to live in political communities with prolonged maternal care of offspring, social learning, structures of dominance and submission based on coalitions and alliances, group hunting, territoriality, and warfare.

Human beings are naturally inclined to prolonged parental care of offspring, social learning, divisions of labor based on age, sex, and acquired status, territoriality, warfare, and structures of political rule based on tendencies to dominance, submission, and resistance to dominance, and a moral community founded on symbolic markers.

The evolved human repertoire of political behavior shows the ambivalent or contradictory character of our human political nature. Our naturally egoistic propensities conflict with our naturally social propensities. Our natural propensities to dominance and deference conflict with our natural propensity to resist being dominated. Our natural propensity to exploit others conflicts with our natural propensity to resist being exploited. These and other tensions in our evolved political nature correspond to what Hibbing calls "the bedrock dilemmas of politics."

One of the starkest dilemmas of politics arises in the practice of slavery. Slavemaking ants are social parasites who live by exploiting the labor of their slaves. Colonies of the honeypot ant species fight over territory. A weaker colony can be enslaved by a stronger colony. Every ant colony has a distinctive odor that must be learned by each ant from an early age through olfactory imprinting. Consequently, when pupae are seized in a slave raid and taken to the slavemakers' nest, the emerging slaves are deceived into identifying the odor of the alien colony as their own, and thus they form social attachments to the slavemakers. The slaves do all the necessary work for the colony such as foraging for food, rearing the brood, and maintaining the nest.<sup>4</sup>

Ant slavery and human slavery both arise as a natural form of social parasitism in which slavemakers exploit their slaves through coercion and manipulation.<sup>5</sup> Some of the defenders of slavery in the American South pointed to ant slavery as showing that slavery was natural.<sup>6</sup>

Ant slavery and human slavery differ, however, in that human beings have evolved to detect and resist exploitation. Thus, Lincoln could see the dispute over slavery as showing the conflicting sides of human nature: "Slavery is founded in the selfishness of man's nature—opposition to it, is his love of justice. These principles are an eternal antagonism."

Lincoln's rhetoric in condemning slavery as wrong manifests another fundamental ambivalence in the political nature of human beings. Lincoln was an intensely ambi-

tious man whose thirst for glory was finally satisfied by issuing the Emancipation Proclamation. And yet he himself had warned early in his career that the American people should vigilantly resist the ambitious dominance drive of rulers seeking glory. If they are not to be exploited, the people must balance their natural propensity to defer to strong leaders against their natural propensity to resist being dominated.

## **Cultural History**

A major misconception about biopolitics arises from a mistaken nature/nurture dichotomy and the false assumption that social learning and cultural traditions cannot be studied biologically, which would mean that political culture is not biological. At some points, Hibbing seems to reject this misconception by observing that biologists are "accustomed to integrating genetic, non-genetic biological (such as early development), and environmental factors." At other points, however, he seems to say that "cultural variations" are beyond biological study.

Among animals, biological evolution works not just at the genetic level but also at the behavioral level.<sup>8</sup> Political animals learn behavioral traditions, so that different animal communities within the same species develop distinct political cultures.<sup>9</sup> Among insects, some features of their social organization are transmitted by cultural inheritance. For example, the raiding preferences of slave-making ants are passed from one generation of workers to another.<sup>10</sup>

Even more clearly, chimpanzee communities both in the wild and in captivity show variation in their cultural traditions. For example, Jane Goodall's *Chimpanzees of Gombe* is a political history that shows not only the political universals of any chimpanzee community but also the unique cultural history of that wild chimpanzee community at Gombe.<sup>11</sup>

Similarly, human politics shows an evolutionary history of behavioral traditions. And yet human politics also shows a uniquely human evolutionary history of symbolic traditions. While other animals communicate through signs, human beings can also communicate through symbols. Symbolic systems allow us to think about abstractions that constitute a shared imagined reality. Art, religion, science, philosophy, and morality all manifest human symbolic evolution. This confirms Aristotle's insight that human beings are more political than the other political animals, because the human capacity for symbolic thought and communication creates political communities based on shared legal, moral, and religious conceptions of the common good.

Lincoln's decision to issue the Emancipation Proclamation was constrained by the behavioral and symbolic traditions of American political culture. Lincoln's ambition manifested a political universal—the natural desire of a few individuals for dominance over a community. But to

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satisfy that desire, Lincoln had to justify his action as conforming to the legal, moral, and religious principles of American political life. In the Proclamation, he appealed to five principles: "And upon this act, sincerely believed to be an act of justice, warranted by the Constitution, upon military necessity, I invoke the considerate judgment of mankind, and the gracious favor of Almighty God." <sup>12</sup>

## **Biographical History**

For biopolitical science, we must understand not only the political universals of natural history and the political traditions of cultural history, but also the political judgments of individual political actors navigating their way through the unique circumstances of their political lives.

In a social insect colony, no two individuals are the same in their behavior over their lifetimes. The individual personality of each insect reflects individual history as well as innate predispositions. Behavioral flexibility in individual ants allows them to adjust the division of labor to the changing needs of the colony.<sup>13</sup>

Similarly, studies of chimpanzee political communities often begin with a photographic and biographic "who's who" of personalities, because each individual is a unique product of an innate temperament and a life history of social experiences. <sup>14</sup> The distinctive history of each chimpanzee community turns on the decisions of individuals working their way through social interactions both within and between groups.

Likewise, human political communities are shaped by the decisions of individual political actors exercising practical judgment in particular circumstances. Lincoln's decision to issue the Emancipation Proclamation illustrates such a judgment that can only be studied in its contingency and complexity through political biography. Explaining how such political judgments are made in conditions of irreducible uncertainty and inevitable error is one of the fundamental problems in political science. <sup>16</sup>

As Hibbing indicates, evolutionary biology and social neuroscience can study political judgment as rooted in the evolved processes of the brain and the neurophysiological systems of the body. Neurobiology illuminates the dependence of political judgment on worldly experience, emotional dispositions, intuitive insights, and narrative thinking, which confirms Aristotle's account of political prudence and rhetorical persuasion.<sup>17</sup>

#### **Conclusion**

Biopolitical science would thus explain politics as the joint product of natural propensities, cultural traditions, and individual judgments. The natural propensities as shaped in the genetic evolution of political animals constrain but do not determine the cultural traditions of politics. These natural propensities and cultural traditions constrain but do not determine the practical judgments of political actors

about what should be done in particular cases, as in Lincoln's decision about the Emancipation Proclamation. To explain this complex interaction of nature, culture, and judgment, biopolitical science would draw knowledge from all fields of traditional political science and from intellectual disciplines across the natural sciences, the social sciences, and the humanities.<sup>18</sup>

There is grandeur in this view of political life, as originating through the laws of nature for the emergence of irreducibly complex wholes from the cooperation of simple parts, so that, from ants and bees to chimps and humans, endless forms of political order most beautiful and most wonderful have been, and are being, evolved.

#### **Notes**

- 1 Hatemi and McDermott 2011.
- 2 Arnhart 1994, 1995, 1998.
- 3 Arnhart 2010 and 2012.
- 4 Holldobler and Wilson 1990, 452–64; Achenbach and Foitzik 2009.
- 5 Patterson 1982.
- 6 Cobb 1858.
- 7 Lincoln 1953, 2:271.
- 8 Avital and Jablonka 2000; Jablonka and Lamb 2005.
- 9 Laland and Galef 2009.
- 10 Avital and Jablonka 2000, 353-57.
- 11 Goodall 1986.
- 12 Lincoln 1953, 6:30.
- 13 Gordon 2010, 63–67, 90–95; Jaisson, Fresneau, and Lachaud 1988; Stroeymeyt et al. 2011.
- 14 Goodall 1986; de Waal 1982.
- 15 Goodwin 2005; Guelzo 2004.
- 16 Hammond 1996.
- 17 Thiele 2006.
- 18 Arnhart 2006.

#### References

Achenbach, Alexandra, and Susanne Foitzik. 2009. "First Evidence for Slave Rebellion: Enslaved Ant Workers Systematically Kill the Brood of Their Social Parasite *Protomognathus Americanus*." *Evolution* 63: 1068–75.

Arnhart, Larry. 1994. "The Darwinian Biology of Aristotle's Political Animals." *American Journal of Political Science* 38(2): 464–85.

——. 1995. "The New Darwinian Naturalism in Political Theory." *American Political Science Review* 89(2): 389–400.

——. 1998. Darwinian Natural Right: The Biological Ethics of Human Nature. Albany, NY: State University of New York Press.

- —. 2010. "Biopolitical Science." Politics and the Life Sciences 29(1): 24-47.
- -. 2012. "Biopolitical Science." In Evolution and Morality, ed. James E. Fleming and Sanford Levinson. New York: New York University Press.
- Avital, Eytan, and Eva Jablonka. 2000. Animal Traditions: Behavioral Inheritance in Evolution. Cambridge: Cambridge University Press.
- Cobb, Thomas R.R. 1858. An Inquiry into the Law of Negro Slavery in the United States. Philadelphia: T. & J.W. Johnson.
- de Waal, Frans. 1982. Chimpanzee Politics: Power and Sex among Apes. New York: Harper and Row.
- Goodall, Jane. 1986. The Chimpanzees of Gombe. Cambridge: Harvard University Press.
- Goodwin, Doris Kearns. 2005. Team of Rivals: The Political Genius of Abraham Lincoln. New York: Simon and Schuster.
- Gordon, Deborah. 2010. Ant Encounters: Interaction Networks and Colony Behavior. Princeton, NJ: Princeton University Press.
- Guelzo, Allen C. 2004. Lincoln's Emancipation Proclamation: The End of Slavery in America. New York: Simon and Schuster.
- Hammond, Kenneth R. 1996. Human Judgment and Social Policy: Irreducible Uncertainty, Inevitable Error, Unavoidable Injustice. New York: Oxford University
- Hatemi, Peter K., and Rose McDermott, eds. 2011. Man Is by Nature a Political Animal: Evolution, Biol-

- ogy, and Politics. Chicago: University of Chicago Press.
- Holldobler, Bert, and Edward O. Wilson. 1990. The Ants. Cambridge: Harvard University Press.
- Jablonka, Eva, and Marion J. Lamb. 2005. Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life. Cambridge: MIT Press.
- Jaisson, Pierre, Dominique Fresneau, and Jean-Paul Lachaud. 1988. "Individual Traits of Social Behavior in Ants." In Interindividual Behavioral Variability in Social Insects, ed. Robert L. Jeanne. Boulder, CO: Westview Press.
- Laland, Kevin N., and Bennett G. Galef. 2009. The Question of Animal Culture. Cambridge: Harvard University Press.
- Lincoln, Abraham. 1953. The Collected Works of Abraham Lincoln. Ed. Roy P. Basler. 9 vols. New Brunswick, NJ: Rutgers University Press.
- Patterson, Orlando. 1982. Slavery and Social Death. Cambridge: Harvard University Press.
- Stroeymeyt, Nathalie, Elva J. H. Robinson, Patrick M. Horgan, James A. R. Marshall, Martin Giurfa, and Nigel R. Franks. 2011. "Experience-Dependent Flexibility in Collective Decision Making by House-Hunting Ants." Behavioral Ecology 22(3): 535-42.
- Thiele, Leslie Paul. 2006. The Heart of Judgment: Practical Wisdom, Neuroscience, and Narrative. Cambridge: Cambridge University Press.