

Book Review

FROM ACCIDENTAL APE TO WALKING ON THE MOON: A NEW THEORY OF HUMAN UNIQUENESS

Rachael A. Carmen

Department of Psychology, State University of New York at New Paltz

Amanda E. Guitart

Department of Psychology, State University of New York at New Paltz

Haley M. Dillon

Department of Psychology, State University of New York at New Paltz

Death from a Distance and the Birth of a Humane Universe. By Paul M. Bingham and Joanne Souza.
BookSurge Publishing: Lexington, KY, 2009; ISBN 978-1-4392-5412-7.

“Only when our specialist insights survive pan-human doubting can they legitimately be called knowledge” (Bingham & Souza, 2009, p.311).

Death from a Distance and the Birth of a Humane Universe is an extensive book based on Paul Bingham and Joanne Souza’s brainchild; a new theory on human uniqueness. Their theory, simply put, is that the human species’ unique ability to throw objects (and thus kill conspecifics, or members of the same species, at a remote distance) has caused humans to evolve in ways never before seen on the planet Earth. This ability alone has had a ripple effect on human behavior and affects human society in ways never before imagined. Coercive management, or “law enforcement,” is an outcome of this ability due to the fact that humans, like all other animals, are self-interested and, in most cases, will use coercion to get their way. But in the same light, humans are unlike any other animals due to the fact that they can get their hands on weapons that produce little threat to the individual wielding the item, yet a large threat to whomever the weapon is pointed at (i.e. low risk, high benefit). Various accounts of human behavior throughout history are used to convince the reader how salient this seemingly basic theory truly is. Basically, the book is a 685-page testament to an all-encompassing theory that, they argue, should be integrated into the knowledgebase about what makes humans truly unique. At the heart of the book, the authors get at a basic and fundamental need that all scientists have deep inside them: the need to create one theory to “rule them all.”

The various chapters introduce the reader to the theory gradually; first introducing them to very basic scientific principles, then holding the readers’ hands as they walk them through the tenets of their simple, yet elegant, theory of human uniqueness. Finally, they take the reader on a journey through time to see this theory applied throughout the history of humankind (at times, even pre-dating it). Bingham and Souza are overly prepared for critical feedback, and in fact, they welcome any opponents to challenge the basic premise of their theory. Overall, the book truly does what it promises: takes the reader on an intellectual journey.

AUTHOR NOTE: Please direct correspondence to Rachael Carmen, Department of Psychology, SUNY New Paltz, 1 Hawk Drive, New Paltz, NY 12561. Email: rachael.carmen@gmail.com

The core of Bingham and Souza's theory stems from the observation that life is made up of conflicts of interest, and it is in fact the human species' ability to use coercive management to control these conflicts that made it possible for humans to excel like no other animal in the history of Earth. Bingham and Souza explain that all biological creatures have conflicts of interest (including us) and these conflicts are what drive individuals to compete for various resources (e.g., food, mates, shelter, etc.), ultimately resulting in conspecific competition. Accordingly, natural selection favors those individuals that best suppress conflict, thus, being able to effectively control conflict is biologically adaptive. So how did humans develop this advanced form of coercive management? Bingham and Souza argue that this has come about due to the direct effect of becoming skilled masters of throwing objects. While the ability to throw is not, itself, unique (our closest evolutionary relative, the chimpanzee, also has the ability to throw objects), the *precision* with which humans can throw objects sets us apart from all other species. This adaptive trait is *so* highly skilled, that the authors often compare humans' elite ability to throw to a cheetah's impressive running capabilities. In fact, according to Bingham and Souza, as our abilities to throw expanded, so did our other uniquely human abilities; thus suggesting that our throwing capabilities are the unique human spark that made us the species we are today.

As selection pressures led to the ability to throw objects with increasing precision—sometimes with the cooperation of others—the ability to procure food for larger groups of individuals increased as well. However, Bingham and Souza distinguish that group advantage, for the most part, never determines an evolutionary outcome; what seems like a group advantage is in fact a result of coercive group suppression of *individual* conflicts, which is in turn a behavior that increases the individuals chance of getting their genes through to the next generation, not a selfless act for the good of the group. The point that the authors are emphasizing here is that natural selection favors self-interested behaviors. However, individuals who take these self-interested acts too far and disrupt the order of the society at large need to be reprimanded by other members of the group (i.e. coercive management).

Our advanced coercive management, or “law enforcement,” has been made possible through the advancements of techniques that do not require as great of a risk to the individual, such as projectile violence like throwing a stone, shooting a gun, or, put simply, any form of “death from a distance.” However, one stone is not as heavy of a persuasion as several stones, and Bingham and Souza make the case (repeatedly) throughout the book that *group cooperation* (and most importantly cooperation between non-family members in a society) is a fundamental aspect of coercive management. While this may seem like a violent and pessimistic view of human existence, the authors argue that this is actually what creates the uniquely cooperative behavior that ultimately leads to peace. Bingham and Souza paint a picture of groups of australopithecines (the group of human-like ancestors that were a precursor to modern day humans) roaming expansive Savanna grasslands for food. While doing so they would come across a cheetah devouring their prey, and if the cheetah was satiated enough, these groups of australopithecines could use the combination of their numbers and their abilities to throw stones to effectively scare off the cheetah (power in numbers). By working together, these early humans would have gained access to higher quality food, which would have led to a great number of developmental advantages ultimately leading to an increased chance of survival.

Though we are unique because of our ability to effectively control coercion, we are still animals at our core, and in the first few chapters, that case is clearly established. For example, Bingham and Souza spend Chapter 3 “The Only Way to Win is Not to Play” explaining the evolutionary reasoning for infanticide in the animal kingdom. In the subsequent chapter, “The Facts of Life,” the authors use the previous knowledge the reader gained in Chapter 3 to gain insight into why some humans (predominately unrelated to their victims) commit acts of infanticide. Of course, infanticide happens less frequently in human society than in others; the point here was that though the human species is unique for various reasons (e.g., skilled projectile throwing), humans also share similarities with other species. The authors of this review thought that Bingham and Souza did a good job of making the case that humans are *both*

members of the animal kingdom that function in ways that are very similar to other animals, yet we possess unique attributes that also set us apart from those same animals.

Soon thereafter, Bingham and Souza bring to light one of the most fundamental aspects of their new theory: the fact that humans are a unique case because they have an evolutionarily novel ability to kill (with extraordinary precision) from a distance—and because of that, social cooperation was *inevitable*. This unique ability affects our social behavior in ways unlike any other animal, simply because it forces us to cooperate with kinship-independent conspecifics. Essentially, here is the logic: Humans are self-interested individuals; they can also manipulate objects from far off distances; because of this ability, it leads to large scale social cooperation in evolutionarily novel ways; natural selection then selects individuals that possess higher amounts of culturally transmitted information that is adaptively beneficial, which in turn increases the likelihood of that same adaptively beneficial information getting passed on and modified throughout the generations; thus, for the first time in the history of the Earth, massive scales of culturally transmitted information are shaped by natural selection, resulting in an adaptive benefit of more complex intelligence. The authors explain that our ability to wire a collective community's combined intelligence together has led to our complex intelligence. Bingham and Souza encourage the reader to stop and re-assess how they grew up—was it only your family that helped raise you, and ultimately taught you about the world or was it a collection of teachers, mentors, and friends (“urban families”) that made you who you are today? This concept, also referred to as *cooperative breeding* (Hrdy, 2009), requires a great deal of trust and advanced cooperation amongst members of the group. For example, the simple ability we have to pass off our infant to someone (often unrelated) and trust that they will be returned unharmed seems like a given in our modern day society which relies heavily on daycare centers and babysitters; however, this is a byproduct of our unique cooperative behavior. Furthermore, Bingham and Souza introduce the idea that humans have the advantage of acquiring both skills that they obtain during their own life as well as learning the skills that those generations before them have spent a lifetime progressing towards. This vast body of knowledge acquired through culturally transmitted information has led to uniquely human phenomena, including (but not limited to) the birth of science.

Another chapter that really stood out was Chapter 8, “Promiscuity and Monogamy,” in which Bingham and Souza discuss the highly debated theory that humans aren't solely a monogamous species. The authors of this review agree that we do, in fact, see instances of high amounts of promiscuity throughout the history of the species and therefore doubt that humans are solely monogamous, but Bingham and Souza convince us even *more* so that both monogamous *and* promiscuous mating systems are seen throughout human history and each can be beneficial depending on the local circumstances. For instance, Bingham and Souza refer to these two systems as different types of “life insurance” for the two sexes. In areas that had high amounts of adult mortality, it was more beneficial to have multiple sexual partners. When paternal uncertainty is high, males must distribute their paternal investment among various potential offspring; additionally, females receive *some* help from various potential fathers, but males in this case will also actively be searching out more sexual opportunities, making it so mothers never really get all the help they could potentially have. If a potential father dies, there are still other mates to help raise the child, so in this case *some* help is much better than *no* help. In contrast, when adult mortality becomes relatively low, monogamy is the way to go. Monogamous relationships make it possible for both mates to receive all of the benefits that one would receive from having only one sexual partner: much lower paternal uncertainty and full investment. Bingham and Souza explain that mating systems are the outcome of a complex interaction between environment and behavior.

In regard to human sexuality, we were pleased that Bingham and Souza included a section on the female orgasm, yet we wished they had extended the section a bit further to discuss in more detail how their view of the female orgasm compares with other popular theories (see Lloyd, 2005 for an in-depth review of competing theories) and how it ultimately ties into their overall theory. For instance, the pair-bond theory claims that the female orgasm evolved to increase the likelihood that the offspring will

receive care from both parents by enforcing long-term sexual relationships (Lloyd, 2005). Contrary to a popular theory by Elizabeth Lloyd (2005), in which she states that the female orgasm is a non-adaptive by-product of male ejaculation, Bingham and Souza claim that the female orgasm *is*, in fact, an adaptation and that it happens as a way for females to select their ideal mate via cervical tenting (when the entrance of the cervix dips repeatedly into the pool of fluids in the vagina—i.e., semen). Bingham and Souza propose that the combination of cervical tenting and higher mating promiscuity led to the female orgasm being used as a way of choosing the most fit mate to beget their offspring. By (unconsciously) timing her orgasm, it makes it possible/plausible for the female to take up more sperm from more desirable males. This view is interesting, but lacked a substantial amount of research to back it up. Here, we are *not* saying that the existence of the female orgasm does not tie in to Bingham and Souza's theory; we are simply saying we wanted *more* information.

In regard to reproduction, we felt that the section on concealed ovulation could have included a more evolutionary point of view in light of recent research. Multiple studies have found that the human female ovulatory cycle is not *fully* concealed (Miller, Tybur & Jordan, 2007) —it can affect not only internal physiology but everything from preferences for masculine features (Lukaszewski & Roney, 2009), choice of dress (Haselton, Mortezaie, Pillsworth, Blaske-Recheck & Fredrick, 2007), sexual desire (Pillsworth, Haselton & Buss, 2004), and even women's facial attractiveness (Roberts, et al., 2004). Perhaps the change in more provocative and even at times promiscuous behavior could have coincided nicely with Bingham and Souza's thoughts on our inherent self-interested qualities.

But Bingham and Souza do manage to talk about other instances in which our self-interest consumes us: The Nazis are an unfortunate example of a small group of individuals who used coercive power to attain dominance over other various groups of people. Bingham and Souza also use this same logic to explain the underlying meaning behind political and religious motivations. Basically, *Death from a Distance* provides the reader with a theory and then gives the reader a historical backdrop to consider this theory's relevance against. Bingham and Souza also discuss the idea that we (the human species), are at a very important crossroads in our evolutionary history. We are always evolving, and especially in light of the cutting edge advancements in communications that we have seen in recent decades through technology (i.e. the internet), the future can be seen as an encouraging sign of unimaginable things to come through human cooperation.

Bingham and Souza work relentlessly to make this book accessible to readers of any background—which is important because the theory applies to all aspects of human nature and everyone should be able to understand the basics of what essentially makes a human, human. As one of the constant themes of the book points out, evolution is everywhere and can contribute to a much broader world perspective. For those who are skeptical of the previous statement, this book will be a particularly interesting read. Bingham and Souza are well aware of, and readily welcome, the skepticism that their new theory will elicit, so they make sure to present ample evidence behind each of their claims to answer any criticism that may be lurking in the reader's mind. While this approach is useful for critics, it can at times be redundant for the evolutionarily minded who do not require this persuasion; luckily, the authors do at times alert the reader when some sections can be skipped which was a useful way to get at the heart of the theory for those with a stronger evolutionary background.

The chapters in *Death from a Distance* read well separately and could definitely be used to supplement courses that wish to add an evolutionary perspective. For example, the chapter "Voices From the Past: The Evolution of 'Language'" is an interesting read for those interested in communication. Furthermore, the first few chapters present a thorough review of some of the fundamentals of biology that are important for any scholar to be reminded of. The authors have also compiled an extensive website at <http://deathfromadistance.com> with videos outlining the book as well as providing an additional 191 pages of supplemental endnotes for the reader who wishes to gain additional insight at points specified throughout the book.

Death from a Distance and the Birth of a Humane Universe reads like a guidebook intended for a vast audience: from those who are only beginning to delve into evolutionary theory, to scholars at the tops of their respective ivory towers. On the surface, the book supplies the reader with an all-encompassing theory on the evolution of human uniqueness. Below the surface, each chapter is loaded with specialized information seamlessly integrated into the next to convince the reader of the authors' theory's ability to account for pretty much anything we have found to be uniquely human. It is easy to see that Bingham and Souza truly did their research. The authors take the reader on a journey from the very basics of scientific knowledge to the inner workings of an all-encompassing, truly provocative theory of human uniqueness. Generally speaking, Bingham and Souza's intellectual collection of socially transmitted information is surprisingly convincing, and by the end of the book, they stay true to their promise of offering the reader a new perspective of the world, and ultimately, ourselves.

Received July 31, 2011; Accepted October, 7, 2011

References

- Haselton, M. G., Mortezaie, M., Pillsworth, E. G., Bleske-Rechek, A., & Frederick, D. A. (2007). Ovulatory shifts in human female ornamentation: Near ovulation, women dress to impress. *Hormones and Behavior*, *51*, 40-45.
- Hrdy, S. B. (2009). *Mothers and others: The evolutionary origins of mutual understanding*. Cambridge, MA: Harvard University Press.
- Lloyd, E. A. (2005). *The case of the female orgasm: Bias in the science of evolution*. Cambridge, MA: Harvard University Press.
- Lukaszewski, A. W., & Roney, J. R. (2009). Estimated hormones predict women's mate preferences for dominant personality traits. *Personality and Individual Differences*, *47*, 191-196.
- Miller, G., Tybur, J. M., & Jordan, B.D. (2007) Ovulatory cycle effects on tip earning by lap dancers: Economic evidence for human estrus? *Evolution and Human Behavior*, *28*, 375- 381.
- Pillsworth, E.G., Haselton, M. G., & Buss, D. M. (2004). Ovulatory shifts in female sexual desire. *Journal of Sex Research*, *41*(1), 55-65.
- Roberts, S. C., Havlicek, J., Flegr, J., Hruskova, M., Little, A. C., Jones, B. C., Perrett, D. I., & Petrie, M. (2004). Female facial attractiveness increases during the fertile phase of the menstrual cycle. *The Royal Society*, *271*, 270-272.