

# Rumbaugh's theory links positions of Wilson, Skinner

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When Dr. Paul Naour was looking for a conclusion to his book detailing a previously unknown 1987 tape recording of a conversation regarding human behavior between theorists E.O. Wilson and B.F. Skinner, he found it at Great Ape Trust, a scientific research institute in Des Moines, Iowa, studying the origins and future of language, culture, tools and intelligence.

In *E.O. Wilson and B.F. Skinner: A Dialogue Between Sociobiology and Radical Behaviorism* (Springer 2009, Hardcover ISBN: 978-0-387-89461-4), Naour uses Great Ape Trust Scientist Emeritus Dr. Duane Rumbaugh's theory of rational behaviorism and emergents as a bridge between two very different schools of thought. Rumbaugh and colleagues published their theory in 2002, offering a substantially new perspective of learning and behavior that generates a new class of behaviors called emergents.

"Rumbaugh's rational behaviorism can connect the (operant) behavioral basis of sociobiology with a perspective that includes cognition and the biological basis for behavior, while it guides behaviorism into the 21st century," Naour wrote in his prologue.

The geographic proximity of Great Ape Trust to Central College, a private liberal arts school in Pella, Iowa, provided a serendipitous opportunity for Naour, professor of [behavioral neuroscience](#), to learn from Rumbaugh, who he calls one of the world's most accomplished primatologists. After a distinguished research and teaching career that

included Yerkes Primate Center at Emory University and Georgia State University, where he cofounded the Language Research Center, Rumbaugh moved professionally to Des Moines when the LRC's bonobo research program moved to Great Ape Trust.

In the book's acknowledgements, Naour said Rumbaugh's "intellectual life has been one long and elegant argument supporting rational behaviorism and its essential concept of emergents."

"I see Duane's work almost as important as Skinner's and Wilson's as far as pushing us to a better understanding of the evolutionary basis for all behavior," Naour said in an interview. "The legacy of Skinner, Wilson and Rumbaugh in the history of 20th century science will most certainly expand during this new century."

Naour came into possession of Wilson-Skinner tape just as serendipitously as he came to meet Rumbaugh.

Naour and Wilson had developed a cordial relationship during the 1990s when Wilson consulted on the creation of a neuroscience major at Muskingum College in Ohio, where Naour was an associate dean. Intrigued by Naour's disparate background - graduate work in behavioral psychology, Skinner's domain, and doctorate work related to evolutionary psychology, Wilson's area of expertise - Wilson challenged Naour to add context to the conversation. The invitation came abruptly as Naour was driving Wilson to catch a plane in Columbus, Ohio. The tape had actually been lost for a period of time, and was at the time newly discovered by an assistant cleaning the office.

"He (Wilson) didn't think anyone could make heads or tails of the conversation," Naour recalled. "He quickly sent the tape to me and asked me to see if I could do something with it some day."

Naour called the taped conversation "a precious archive that I felt obligated to do something with." Upon receiving it, he quickly transcribed the tape and planned to present it in a book with some commentary. However, his administrative responsibilities were taking an ever-larger share of his time, Naour pushed the book to the back burner while he contemplated how to present the conversation in a more compelling way.

"I owe a huge debt of gratitude to Duane, who helped influence my thinking, and to Great Ape Trust," Naour said. "If I had not encountered Duane at the level I had, if he had not been in Des Moines, this would have been a very different book, and not as forward-thinking."

Through Rumbaugh, Naour met Dr. H. Carl Haywood, professor emeritus of psychology at Vanderbilt University's Peabody College, who provides a vision for rational behaviorism as "the next big step" in his epilogue.

Haywood, one of Rumbaugh's first students in comparative psychology and statistical methods, "offers a cogent description of the place occupied by rational behaviorism relative to radical behaviorism within the larger evolutionary framework, suggesting a 'kind of sequencing that can provide the springboard to a generation or more of conceptualizing and empirical research,'" Naour wrote. "It remains to readers whether you are inspired by Haywood to draw upon that springboard - progressing 'from simple to complex explanatory principles, and ultimately from attempts to explain simple and single acts to the explanation of complex, creative and original thought.'"

Rumbaugh said that through his book, Naour is making the theory of rational behaviorism and emergents more accessible to scholars and "can without doubt advance these ideas in a different way."

"This re-engages the question and reinvigorates the debate," Rumbaugh said.

Rumbaugh said that in addition to his own research in comparative primate learning and language, Dr. Sue Savage-Rumbaugh's language research with apes, particularly the bonobos now living at Great Ape Trust, helped stimulate his comprehensive theory of learning and behavior. Colleagues important to Rumbaugh's theory also include his co-authors in a 2007 publication in the International Journal of Primatology: Professor Emeritus James E. King of the University of Arizona; Dr. Michael Beran and Dr. David Washburn, both of the Language Research Center at Georgia State University; and Dr. Kristy Gould of Luther College in Decorah, Iowa.

"My own aspiration has been to achieve a more rational and integrated understanding of [learning](#), [behavior](#), intelligence, cognition and creative thought that embraces the animal kingdom and humankind as well," he said. "The role and operations of the brain have been altered as the brain has become more elaborated through the primate order, the taxonomic order to which we belong. Studies of primates have taught us a great deal across the decades of our research and they will continue to do so in the future."

Source: Great Ape Trust of Iowa

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