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SALMON, GULLS, AND BABOONS? OH MY

In the mid-1970s an innovative social science curriculum project called *Man: A Course of Study*, or MACOS, leapt into the national spotlight. The product of seven years of planning, MACOS designers hoped that the fifth-grade students enrolled in the program would develop critical thinking skills through questioning the environmental and social pressures defining animal behavior and confronting human cultures.¹ MACOS's detractors saw instead a curriculum designed to inculcate young children with the belief that all human cultures were morally equal and that man could be best understood as an animal.²

When the fate of federally funded MACOS was brought before the United States Congress, a tangled knot of issues rested at the core of the dispute.³ Was the role of public education to help students develop the intellectual skills to learn for themselves, or to convey to students a body of information? Was it useful to explain diverse human cultural traditions as adaptations to disparate ecological conditions, or did such an approach devalue American democracy? Should schools help students confront the sometimes harsh realities of life, or shield them? Were elementary school students even capable of wrestling with weighty issues like violence and death, or should such discussions be saved for high school? And, perhaps most importantly, should the federal government have provided funding to support the development and dissemination of a curriculum about which these questions were asked? Providing even provisional answers to these still-relevant questions is beyond the scope of this essay, yet I raise them to illustrate the values both advocates and detractors attributed to the program. One of the sources of these disagreements stemmed from the unique position of the social sciences as, on the one hand, a science, and on the other, a way of understanding what it means to be human.

Let us consider, then, the origins of MACOS. Psychologist Jerome Bruner and primatologist Irven DeVore (both at Harvard University), together with Peter Dow at Education Services, Inc. (based out of Cambridge, Massachusetts) set out to develop a program for the social sciences akin to the new science

curricula developed in the 1950s, like the wildly popular materials developed by the Physical Science Study Committee and the more controversial Biological Sciences Curriculum Study.⁴ In its earliest form, MACOS started with an ethnographic study of the Netsilik of Pelly Bay, in current day Nunavut, Canada. Curriculum designers hoped that the daily lives and cultural traditions of the Netsilik were sufficiently different from American students' own experiences to be a useful tool for helping the students reflect on their own lives.⁵ According to Bruner, the cultural conventions of societies might differ greatly, but their structures were designed to fulfill the same functions—making and distributing food, raising children, etc.⁶ Students played an interactive seal-hunt game, read booklets that presented Netsilik stories and folktales (figure 1), and watched a series of films designed to virtually transport the students to the far reaches of the Arctic tundra where they could witness for themselves the daily routines and activities of our neighbors to the north (figure 2).⁷

In the first trial runs of the program, booklets and films of baboon behavior, developed by DeVore, were interspersed with these ethnographic elements to act as a foil for understanding human nature.⁸ Bruner hoped to convey the idea that through spoken language and tool manufacture humans could solve problems culturally that baboons could solve only biologically (figure 3). Whereas we build houses for shelter, share the spoils of the hunt, and tell stories to each other that reinforce the importance of labor and cooperation, baboons must rely on nonverbal communication and rigid social structures to achieve the same ends.⁹ As a result of these summer tests, Bruner, DeVore, and Dow quickly discovered that the children were incapable of viewing the films with any kind of objective distance. Instead of interpreting the animals' actions as responses to their environments, children identified with the baboons and understood their behavior in terms of personal emotions. The designers' solution was to supplement the course with films and activities on the circle of life (figure 4) and the importance of parental care in ensuring species survival (figure 5). Additionally, by moving all the animal material to the beginning of the course, they hoped to get students to ask analytical rather than empathetic questions before turning their attention to human cultures. In its final form, then, MACOS replaced a year of the traditional social studies curriculum and offered in its place a course that asked, "What is human about human beings? How did they get that way? How can they be made more so?"¹⁰ Students spent the first half of the year learning how to objectively analyze animal behavior and devoted the second half to Netsilik culture.

Both the attempt to provide MACOS students with as much raw data as possible and the designers' preference for film as a substitute for actually being



Figure 1: According to “Stories of the Beginning Times,” men and animals used to be able to transform into one another, and all species spoke the same language. Image from MACOS, *This World We Know*, illustrated by Leo and Diane Dillon (Cambridge, MA: Education Development Center, Inc., 1970): ii.

in the Arctic emerged from an educational philosophy developed within a scientific context.¹¹ In the sciences, instructors emphasized hands-on laboratory experiences, using raw data to demonstrate natural laws. The new physics curriculum even incorporated films of Nobel laureates performing experiments with instruments to which grade-school children would be unlikely to have access.¹² Film represented science in action, on a budget. Yet difficulties arose



Figure 2: Twenty-one half-hour films about the Netsilik way of life followed their yearly migration pattern through the Arctic tundra. The films emphasized the kinds of activities that characterized different seasons and places, including stalking seal, fishing for salmon, building igloos, and hunting caribou. The two men pictured here are building a kayak. Film still from Quentin Brown, *Building a Kayak, Part 1; Netsilik Eskimo Series* (Documentary Educational Resources, 1967), min. 11:26.

ONLY MAN SPEAKS



When a man yawns, or smiles, or wrinkles his brow, he is communicating his feelings through movements or gestures as baboons do. But instead of yawning, or smiling, or wrinkling his brow, a man can say: "I'm so tired," or "I like you," or "I'm not happy."

Men often use gestures to communicate, but almost never without using words to go along with the gestures. Because a man uses words, he can say almost anything he wants: "This is my lunch," or "Yesterday was a rainy Saturday." Or even, "Who, me?"

A man's message does not have to be an automatic response to a real situation. A man can tell a lie. His friend can say, also, "That's a lie!" or more politely, if not as truthfully, "I don't understand you."

Figure 3: The baboon movies and booklets variously emphasized the growth and maturation of baboon infants, the social hierarchy within a baboon troop, the greater security afforded to members of the troop, and the gestures and vocalizations by which baboons communicated with one another. With regards to language, the course used baboons as a foil to argue that humans were unique in their capacity for spoken language. Image from MACOS, *Baboon Communication* (Cambridge, MA: Education Development Center, Inc., 1970): 17.

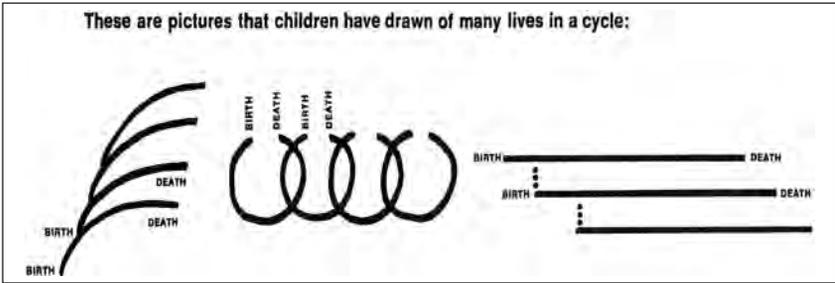


Figure 4: MACOS devoted several booklets to explaining a wide variety of animal life cycles, including the African elephants, bottlenose porpoise, brown rat, chimpanzee, gnu, grizzly bear, wolf, and salmon. Image from MACOS, *Life Cycle* (Cambridge, MA: Education Development Center, Inc., 1970): 4.

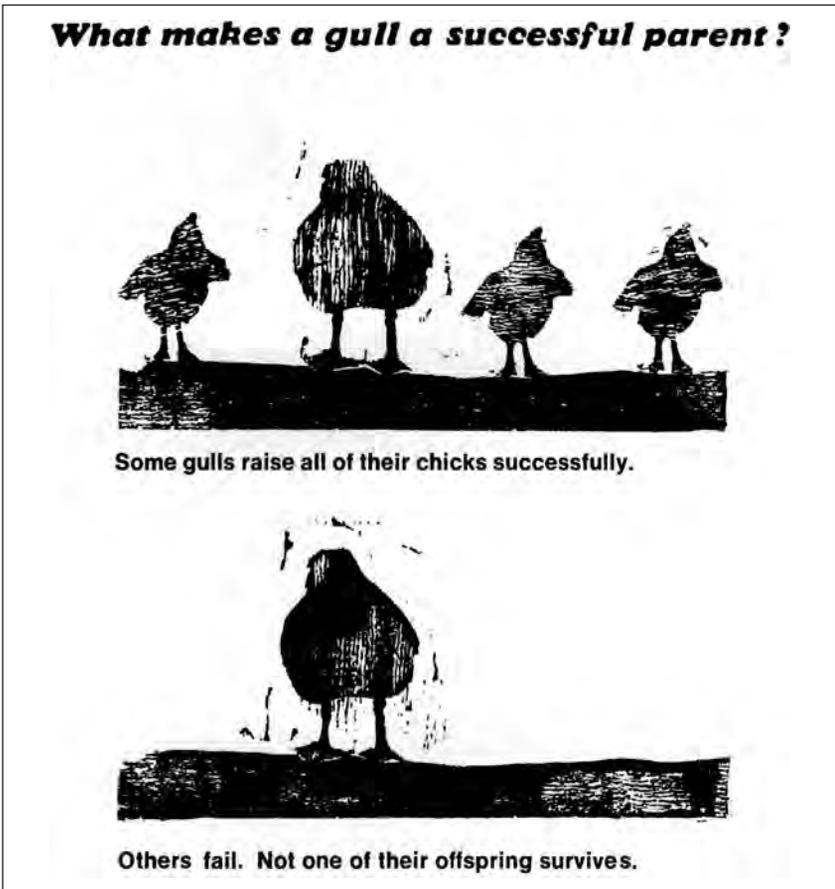


Figure 5: In the herring gull section of MACOS, students were encouraged to think about the differences between innate and learned behavior, and how animal behaviors can be seen as adaptations to the environment in which they lived. The unit additionally described the importance of parental care in ensuring the long-term survival of the species. Image from MACOS, *Herring Gull* (Cambridge, MA: Education Development Center, Inc., 1970): 3.

when MACOS developers applied this scientific framework and quest for universal laws to human nature. In a time of both domestic and international turmoil, all answers to the question “What is human about human nature?” were politically inflected. Many of MACOS’s detractors found the scientific approach to human cultures anathema because they feared these children would grow up without sufficient appreciation for their democratic freedoms; for them, a social scientific approach to humanity suggested that humans were *merely* another species of animal.¹³

The history of MACOS raises many questions. Among these are the varied ways in which we think of animals as tools to understand what it means to be human. In MACOS, animals were sometimes used as simplified models of humanity, substituting salmon, gulls, and baboons (rather than the more familiar birds and bees) for people in order to explain our all-too-human behavior. Animals also served as foils with which students explored what it is that makes humans unique in the animal kingdom, including our capacity for language, our creative solutions to complex problems, and ultimately our ability to reflect on the essence of human nature. It wasn’t the program’s use of animals in and of themselves that caught the attention of the public, however, but the moral and political implications of providing cultural relativism with a biological basis. Sometimes the questions most worth asking, in part because they raise knotty issues like these, are the least likely to provide answers that satisfy everyone.

NOTES

1. Educational Services Incorporated, “A Short History of the Social Studies Program (Spring 1965),” Peter B. Dow—*Man: A Course of Study* Records, Special Collections, Monroe C. Gutman Library, Harvard Graduate School of Education (hereafter, “MACOS Records”), box 3, folder 15.
2. Susan M. Marshner, *Man: A Course of Study—Prototype for Federalized Textbooks?* (Washington, DC: The Heritage Foundation, Inc., 1975); Dorothy Nelkin, “The Proper Study of Mankind . . . : The MACOS Debate,” in *Science Textbook Controversies and the Politics of Equal Time* (Cambridge, MA: MIT Press, 1977), 81–103.
3. John Conlan, “MACOS: The Push for a Uniform National Curriculum,” *Social Education* 39 (1975): 388–92; *National Science Foundation Curriculum Development and Implementation for Pre-College Science Education: Report Prepared for the Committee on Science and Technology, U.S. House of Representatives, Ninety-Fourth Congress, First Session, Serial Q* (Washington, DC: U.S. Government Printing Office, 1975).
4. John L. Rudolph, *Scientists in the Classroom: The Cold War Reconstruction of American Science Education* (New York: Palgrave Macmillan, 2002); Harry Wolcott, “The Middlemen of MACOS,” *Anthropology and Education Quarterly* 38 (2007): 195–206.
5. Quentin Brown, *Netsilik Eskimo Series* (Documentary Educational Resources, 1970); Nancy Lutkehaus, “Man, A Course of Study: Situating Tim Asch’s Pedagogy and Ethnographic

- Films," in *Timothy Asch and Ethnographic Films*, ed. E. Douglas Lewis (New York: Routledge, 2004), 57–73; Asen Balikci, "Anthropology, Film and the Arctic Peoples," *Anthropology Today* 5 (1989): 4–10; Timothy Asch, "A Proposal for Making Ethnographic Film (September 1964)," MACOS Records, box 4, folder 2.
6. Jerome Bruner, "Some Leading Generalizations," Educational Services, Inc. (undated). MACOS Records, box 3, folder 10.
 7. Most of the MACOS booklets, slide shows, and teaching guides have recently been scanned and made freely available at www.macosonline.org/course/ (last accessed March 4, 2011).
 8. Peter Dow, "The Handmade Cadillac," in *Schoolhouse Politics: Lessons from the Sputnik Era* (Cambridge, MA: Harvard University Press, 1991), 72–138.
 9. MACOS, *Structure & Function* (Cambridge, MA: Education Development Center, Inc., 1970).
 10. Jerome S. Bruner, "Man: A Course of Study," *ESI Quarterly Report* (1965): 3–13.
 11. "Brief Report of a Two Week Conference Held at Endicott House, Dedham, Mass., by the American Council of Learned Societies and Educational Services Incorporated to Plan a Program of Curriculum Development in the Humanities and Social Studies," June 9–23, 1962, MACOS Records, box 1, folder 3.
 12. Rudolph, "PSSC: Engineering Reality," in *Scientists in the Classroom*, 113–36.
 13. James J. Kilpatrick, "Sex Education Should Not Be Left to the Sexologists," *Los Angeles Times*, June 9, 1969; "Eskimo-Style Sex and Fifth Graders," *The Free Lance-Star* (Fredericksburg, VA), April 9, 1975; "Carrying Flag in an Endless War," *Sarasota Herald Tribune*, Jan. 20, 1976.