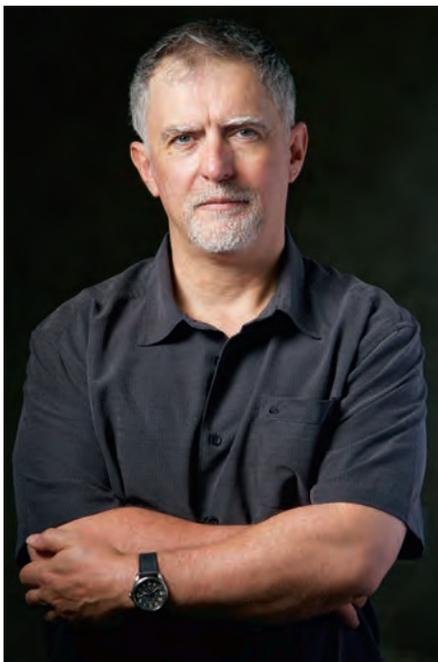


Other Minds

THE OCTOPUS, THE SEA, AND THE DEEP ORIGINS OF CONSCIOUSNESS

by Peter Godfrey-Smith

Reviewed by **Hugh Markey**



Peter Godfrey-Smith

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SEARCH YOUTUBE FOR TERMS LIKE octopus or cuttlefish—members of the class of cephalopods—and typical results fall into two categories. The first reflects the intelligence of the cephalopod (“Octopus Escapes Jar”), the second, its camouflage (“Cuttlefish: Tentacles in Disguise”). In *Other Minds: The Octopus, the Sea, and the Deep Origins of Consciousness*, Peter Godfrey-Smith examines these abilities as indicators of not only cleverness, but of actual consciousness. As he puts it, “Cephalo-

pods are an island of mental complexity in the sea of invertebrate animals.”

Godfrey-Smith is a professor of philosophy as well as the philosophy of science. For better or worse, *Other Minds* is more an exploration of the philosophy of consciousness than an examination of the workings of the cephalopod brain.

Other Minds is at its best when it examines the behaviors of cephalopods. Godfrey-Smith relates studies of captive creatures that very quickly learned to squirt water at the lights above their tanks, short circuiting them and relieving the octopus’s sensitive eyes of the bright lights. He relates other behaviors: “In the same lab in New Zealand that had the ‘lights-out’ problem, an octopus took a dislike to one member of the lab staff, for no obvious reason, and whenever that person passed by on the walkway behind the tank she received a jet of half a gallon of water in the back of her neck.”

Then there are those arms. Godfrey-Smith explains that most of the neurons in the octopus are found not in a central brain, but spread throughout the body, many of them in the arms. These seem to function at least partially independently, and are capable of tasting as well as feeling. Godfrey-Smith postulates that the complex system of

neurons developed for controlling and coordinating that body, including arms that continue to function even after being severed, may allow other capacities—such as recognition of specific people—to arise as byproducts: “There is, it seems, a kind of mental surplus in the octopus.”

Godfrey-Smith says cuttlefish, too, may have a surprising possibility of consciousness as evinced through their remarkable capacity for changing color. The chromatophores in one layer of their skin produce a limited array of colors, but there are also two types of cells that reflect and alter colors. The combinations of these three types produce the seemingly endless blends of camouflage so fascinating to see. “As a communication channel, the bandwidth of this system is extraordinary. You could say anything with it—if you had a way to encode the messages, and if anyone was listening.”

Godfrey-Smith cautions that the rapid acceleration of fishing, pollution, and climate change indicates that the ocean’s capacity for renewal is not endless. Though Smith’s book raises more questions than it answers, he concludes by pointing out that none of those questions will ever be answered without better care for the world’s oceans.