USING TRAINING TO CREATE EDUCATIONAL PRESENTATIONS

Jean luc Bourgain[1], Marjorie Flamey[1], Corinne Godet[1], Geraldine Lacave[2], Aurelia Pouille[1], Virginie Roy[1] & Carole Salome[1]**
[1]NAUSICAA, Centre National de La Mer à Boulogne sur Mer
[2]Marine Mammal Veterinary Services

When NAUSICAA began the public display of sea lions, the goal was to simply display the animals in a natural environment. Trainers, however, wanted to maintain some behavioral control to facilitate animal care and to provide a variety of physically and mentally stimulating activities. Subsequently, the animals were conditioned for participation in medical behaviors, the concept of shape recognition, and several aerial behaviors.

After three years of this basic training, a formal public presentation was developed highlighting basic anatomy/physiology, animal behavior, medical training, and environmental education. By observing these educational presentations, visitors discover much of the work done behind the scenes at NAUSICAA.

HOW TO DEVELOP ABSTRACT CONCEPTS AND UNDERSTANDING OF COMPLEX RELATIONSHIPS IN DOLPHINS

Robert K. Uyeyama[1] & Louis M. Herman[2]*
[1]University of Hawaii at Manoa
[2]Kewalo Basin Marine Mammal Laboratory

We are often asked how we taught our dolphins to understand an artificial language or to understand that symbols can be referential (referring to objects or events rather than serving as simple elicitors or releasers of behavior). In general, concepts can develop through experience with a wide variety of exemplars of a class of events together with decontextualizing the occurrence of these events. For example, to teach a dolphin the concept of "overness," as contrasted with the releaser "over", the gestural sign for over should signify to go over anything the dolphin chooses or anything the trainer indicates, no matter where it is and what it is. Through this process, the over sign develops into a reference to the act itself and does not simply act as a discriminative stimulus that sets the occasion for jumping over something for reward. Our dolphins, for example, understand overness to the extent that they will rearrange or reposition objects to make these possible for them to leap over. If a surfboard lies partially beached on a pool scupper and the dolphin is signed surfboard over, it will swim to the surfboard, push it out to the center of the pool, and then leap over it, effectively rearranging the world to enable it to perform "overness." We did not train that response, the dolphin created it. A corollary of these ideas is that concepts beget concepts. As the animal increases its knowledge of the world in which it is immersed and experiences multiple concepts, it gains a concept about concepts. Basically, we say that the dolphin develops a concept of a problem, that there are such things as problems and that there are such things as solutions. If the dolphin has been carefully led into numerous successes with problem-solving, the solving of new problems will be facilitated, resulting more often in concept-driven behaviors presented spontaneously by the dolphin, rather than balking or default behaviors in unfamiliar contexts. In this presentation, we explore these ideas further, presenting examples to explore and explain the concept of what might be called "cognitive shaping."