

LA ETOLOGIA: HUXLEY Y LORENZ (“ETHOLOGY: HUXLEY & LORENZ”) –

[\[http://www.youtube.com/watch?v=VHA2lcGZ9sQ&feature=endscreen&NR=1\]](http://www.youtube.com/watch?v=VHA2lcGZ9sQ&feature=endscreen&NR=1)

TRANSCRIPT

(00:00) While von Frisch was investigating the language of bees, others were laying down the foundations of another science: ethology, which at first was related mainly to the rituals of birds. (00:16) Ethology's roots lie in the scientific observation of birds; then, as now, naturalists used behavior as a means of identification. After all, from a distance habits are more useful to identify birds than silhouettes. (00:28) But, at the beginning of the [20th] century, exact reports on bird behavior were few. This, however, was about to change. (00:50) In 1912, Huxley, a zoologist, spent a vacation near London watching crested grebes. Fascinated by their rituals, he made detailed descriptions of them. (01:26) Having a thorough scientific training, Huxley wanted to discover the purpose of these displays and suggest how they might have evolved. He observed that part of the ritual involved running the beak rhythmically over the back feathers. He called them “courtship habits” and proposed that even more complex displays could have originated from ordinary daily habits such as grooming, which would be modified by evolution to become more visible as signals. (02:13) In the case of the grebes, the action of courtship is repeated rhythmically; Huxley called the transformation of ordinary habits into signals “ritualization”. (2:32) But what was the function of mutual ceremonies such as this one? And he kept asking this question in Spitsbergen about the loons, which are similar to the grebes in lifestyle, and like them show no differences between the sexes. (03:00) They also engage in mutual courtship ceremonies. Huxley believed that this type of ritual reinforced the couple's ties and established an emotional synchrony between the sexes, so vital for mating. (03:48) The study of bird displays took a step forward in Austria. In 1927, Konrad Lorenz abandoned his studies of medicine to become a professional researcher of animal behavior. He continued his classes in Altenberg, a small town located between the Vienna Woods on one side and the Danube on the other. (04: 10) He raised these little geese, which treated him like Mother Goose. Lorenz was especially fascinated by the strong attachment that the geese felt towards the first individual they saw when they left the egg. This phenomenon came to be known as imprinting. (05:04) Lorenz took his ethology very seriously and used this phenomenon to study geese closely. Wild geese are extremely shy and inhabit remote swampy regions of Austria, where they are difficult to observe. (05:42) Raising geese from the eggs he collected while walking through the woods, Lorenz obtained birds that were wholly trusting. (06:13) These geese to which he applied his theory continued to be tame even when they grew up. (06:31) Between 1935 and 1938 Lorenz made a thorough study of geese. Many of them were imprinted on him, so that he could sit among them as they revealed details of their private lives. He noted that they communicated through formal signals, often using the head and the neck as a kind of semaphore. (07:07) In spring the geese threatened each other with the neck extended forward, low over the water – a sign of aggression. When he tries to convince his mate to follow him into the water for mating, the male's neck assumes a graceful swan-like curve. (07:45) Lorenz observed that, when the couple swam, a lovely ceremony marked the moment just before mating. The two birds dipped their heads rhythmically, a sign of being ready for sex. (08:14) In his ponds around Altenberg, Lorenz kept various species of wild birds, and watched how ducks paraded in their own style. At first the behavior looked

confusing, but soon he succeeded in splitting it into separate components. (09:00) He went further and assigned evolutionary origins to each of these individual actions. The mandarin duck, an ornamental species from China, revealed the roots of its rituals. (09:19) To Lorenz, its “reverence” seemed to derive from the act of drinking, and the head shake looked like a ritualized courtship display, exhibiting the wing feathers. (09:36] Lorenz’s ideas on duck displays revolutionized the way we interpret bird rituals. The males become billboards displaying a series of body signals, intimidating their rivals and encouraging females to mate with them. [END OF FILM]

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