

The Piano Playing Duck

In the final act, a small signal light is turned on near a lamp on a miniature piano. The duck responds to this light by pulling on a pull-cord to turn on the lamp. Once the lamp is lighted, the duck then dabbles up and down the piano keyboard to play a tinkly tune.

When training starts, the lamp is on, and the cord is not where the duck can reach it. Usually the trainer starts by putting a few bits of food on the keys. When the duck touches the keys to eat this food, the trainer says YES with the electric feeder. On later trials, the trainer gradually reduces the amount of food placed on the keys until the duck is striking or dabbling on the bare keys.

At first the trainer rewards any strike or dabble at the keys, soon only those which depress the keys enough to make a sound.

When the duck is hitting the keys hard and regularly, the trainer now asks the duck to strike or dabble more than once, and also waits for the duck to respond at different spots on the keyboard. Soon the duck is dabbling up and down the keyboard with considerable strength. The trainer always tries to reward the duck while it is actually "playing" the piano; otherwise the duck might learn to play a few notes and then stop to wait for the food.

When the duck is reliably striking the keyboard at several locations, hard enough to play the tune, the next training step is started. The duck must learn to turn on the lamp itself. In order to do this, the small signal light by the lamp is turned on, the keys are covered, and a few bits of grain are taped onto the pull-cord. The trainer may also jiggle the cord a bit to call it to the duck's attention. As soon as the duck starts to dabble or pull at the grain, the trainer tells the duck YES. Gradually the amount of grain placed on the cord is reduced until the duck is pulling on the bare cord. This response is always trained with what the psychologist calls CONTINUOUS REINFORCEMENT; that is, EVERY strong pull on the cord is rewarded.

Now the signal light is turned on, the keys are uncovered, and the duck is required to pull on the cord to light the lamp, then play the piano the required number of times to earn its reward. Here we have connected or CHAINED two responses together -- pulling the cord and dabbling on the keys.

The final step is to teach the duck to pull at the cord only when the signal light is on. The duck must learn what the psychologist calls a DISCRIMINATION ;when the light is on by the lamp, pulling the cord will light the lamp and the piano playing will work the feeder. If the light is off, nothing works, and the duck will not be fed for cord pulling or piano playing. The trainer teaches the

duck this discrimination by leaving the light off part of the time and letting the duck become discouraged at trying to play with no light (remember EXTINCTION?). After a while the duck learns to wait for the signal light before pulling the cord and playing.

When the bird has put all this together, we have a completely trained Piano Duck. The training of a Piano Duck may take from two to three months.