

HERRING GULLS



Man: A Course of Study

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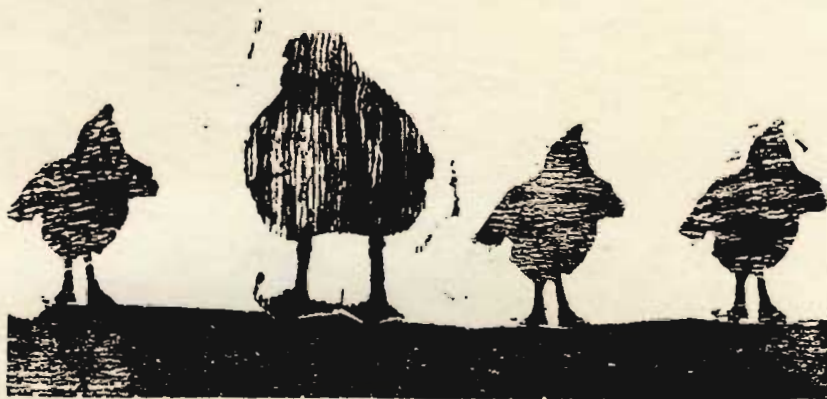
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HERRING GULLS

I GULL BEHAVIOR

What makes a gull a successful parent ?



Some gulls raise all of their chicks successfully.



Others fail. Not one of their offspring survives.



Herring gulls pair off and mate in the early spring. The pair builds a nest on an island and the female lays three eggs. For the next month, the parents incubate them (that is, they sit on the eggs, protecting them and keeping them warm). One parent sits on the eggs for several hours until the other takes its place.

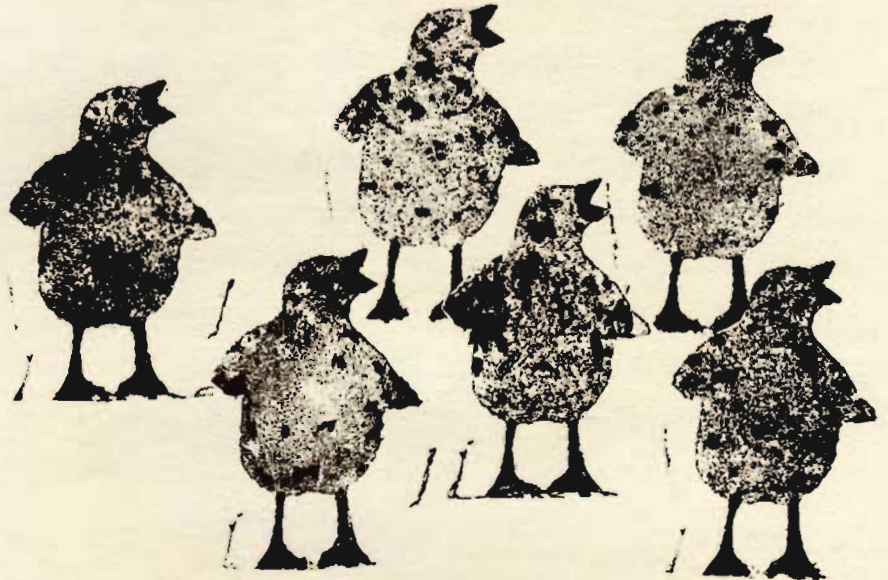
If the parents do not incubate the eggs, the growing chicks die.



The chicks begin to hatch about four weeks after the eggs are laid. They are about the same color as the eggs, grey with brown spots.



Soon after hatching, the chick begins pecking at the red spot on its parent's beak. When the chick pecks, the parent regurgitates food for the chick to eat. The chick is fed in this manner by both parents until it is about two months old.



Adults often attack and kill chicks that come near their nests unless they recognize them as their own. The parents must be able to recognize their chicks by the time they begin to wander around the nest. Each chick has a different pattern of spots on the back of its head, and each gull's voice has a different quality. The parents recognize their own chicks both by their spots and by their voices.

When a predator comes near, the brightly colored parents fly from the area, squawking loudly. The helpless chicks crouch in the nest in response to the call of the adults. The color of the chicks blends with the color of the environment. If the parents stayed near their offspring, they might attract the predator to the nest.

A chick grows rapidly, and at six weeks it is almost the size of its parents. Yet the chick still needs food and protection to survive. When adults are near, the chicks crouch and lower their heads. If the chicks do not crouch, the parents may feel threatened by having such large birds in their territory. The parents may even attack their own chicks.





At about six weeks, the chick begins to fly. It has lost its downy feathers and is a brownish-black color. When it is two months old, it begins to explore the ocean near the island and begins to find food on its own. But the large chick may still get food from its parents for another month.

By the time a gull is three months old, it is fully independent. But it will not be able to reproduce until it is three to five years old. At that time it will be fully grown and have adult plumage.

From the time the eggs are laid, the parents must behave in certain ways at certain times or the chicks die.



By the end of the first summer, most of the chicks have died. From every six or seven eggs laid, only one chick survives to reproduce.

Why do gulls feed their chicks?



If someone asked you, "**Why do gulls feed their chicks?**" you would explain that the chicks are hungry, or that the chicks would die if they were not fed.

But try asking a gull. Even if you and the gull could communicate, the gull probably could not explain why it behaves the way it does.

Gulls probably behave in certain ways because they have strong feelings that make them act in these ways. We call these strong feelings "urges."

In the spring when the gulls return to the island where they mated the year before, a number of urges appear, one after the other. Some of the urges are **the urge to fight, the urge to mate, the urge to build a nest, the urge to incubate, the urge to feed chicks**. Every year these urges reappear and direct the activities of the herring gulls in the spring and summer.

Each of the gull's urges grows and disappears on its own. But what happens outside the gull influences its urges.



The urge to fight is aroused by the sight of another gull nearby.



The urge to mate is aroused by the sight of a familiar gull tossing its head.



The urge to incubate is aroused by the sight of eggs.



The urge to feed chicks is aroused by the pecking of the chicks.

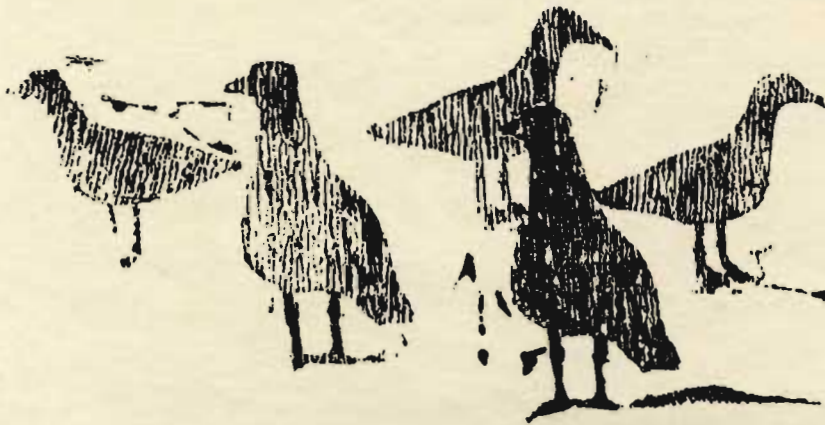
The gull's urges are a little like our appetites. Our appetite grows whether we think about it or not. Six or seven hours after a meal, our appetite has grown on its own. The sight of food then will arouse our appetite further. But the sight of food right after a large meal will not arouse us at all.

All of the gull's urges are necessary if chicks are to hatch and survive. Even the urge to fight is useful. By threatening other gulls, a pair of gulls sets up a small area which we call a territory. In this territory, the chicks can grow in safety.

But the gulls fight in the spring without knowing anything about the chicks that are not yet hatched. They are not aware of the chicks' need for a safe place in which to grow. The gull's urges direct its life without the gull's understanding why.

Think again about the question: What makes a gull a successful parent?

II GULLS IN GROUPS



An adult male gull spends the fall and winter traveling with a flock of gulls. He does not spend time with one special gull or with one group. As he searches for food and resting places, the gull is alone even in the middle of a flock.

In the spring, the male returns to the island where he was the year before. There he comes into close contact with an adult female, with other males, and later with his chicks.

The male interacts closely with other gulls. In order to interact, he must communicate. How is he going to let the female know he feels like incubating eggs? Or how is he going to keep another male out of his territory?

All animals, including humans, have ways of communicating. On the next few pages, we will examine two examples of gull behavior. As you study the ways gulls communicate while they interact, think about how their ways are similar to or different from the ways humans communicate.

The Adult Male Herring Gull

Comes into contact with:	At the time when:
OTHER ADULT MALES 	HE DEFENDS HIS TERRITORY
ADULT FEMALE 	HE MATES HE BUILDS A NEST HE INCUBATES THE EGGS HE RAISES CHICKS
CHICKS 	HE BROODS THEM HE FEEDS THEM HE PROTECTS THEM

Adult Male - Adult Female: Mating

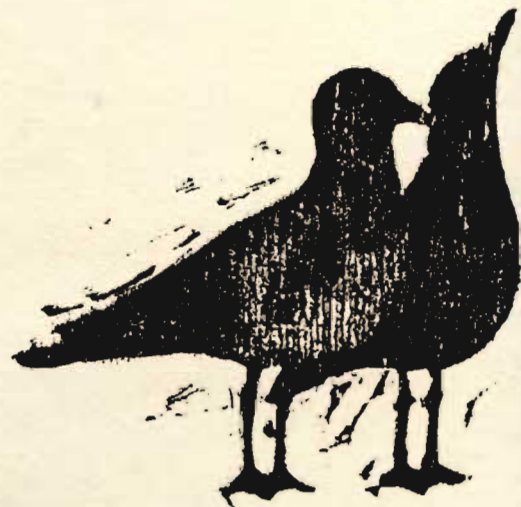
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The usual reaction of gulls to danger is to flee. They fly away from any animal that is very close to them. But in order to mate, the birds not only have to be near each other, they must also touch each other. So they must communicate with each other to overcome the urge to flee or fight.

In the early stages of mating, the female tosses her head, sometimes touching the beak of the male. Gradually, his fear of having another bird near is overcome, and his urge to mate is aroused. The female pecks and nibbles at the male's beak and he regurgitates food for her to eat.

After the pair has been together for some time, the male begins head-tossing as the female tosses her head. His throat begins to swell. He utters a hoarse call, jumps on the female's back and they mate.

Both the male and the female are communicating an urge, the urge to mate. But suppose the urge in one of them is not as strong as it is in the other? Then the behavior is different. If the male's urge to mate is not





strong, he may ignore the female's head-tossing, or even peck at her. The female, if her urge is not strong, may walk away so that the male cannot jump on her, or she may peck at him.

If you saw two gulls standing near each other and tossing their heads, you might have trouble understanding what they are doing. But the gulls do not have this problem. When one gull begins to toss its head, it causes a reaction in the other gull. The gulls do not need to understand why they toss their heads. It is only important that head-tossing overcomes the male's fear of another bird and arouses his urge to mate.

Adult Male - Adult Male: Fighting

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Each pair of gulls has a territory where it raises its chicks. Since no other gulls are allowed into this territory, a pair must communicate to the other gulls where the boundaries of its territory are. The gulls do this by fighting off all intruders.

This is a description of the gull's fighting behavior by Niko Tinbergen, a man who has spent many years studying herring gulls.

A territory may be invaded by strangers when the owners aren't there. As soon as the owners return, however, there is trouble. Usually the male walks up to the strangers in a very rigid way. Instead of having his neck drawn in, as he does when resting, he stretches it upwards and forwards, while at the same time he points his head down. His wings are lifted a little so that they stand out from his body. In this posture, the male walks with stiff steps straight toward the invader.

This posture is a threat to all other gulls. The human observer is so little impressed by it that he has difficulty noticing it at all and he has to learn what it means. But to all herring gulls it is full of meaning and their reaction to it seems to be entirely innate.

Usually the intruders react immediately. Until then, they may have been quietly resting, but as soon as the attacker shows his threat posture, they begin to creep away. The attacker approaches more quickly, lifts his wings, and finally charges, half running and half flying.

The intruders usually fly away. Or if they already know the boundary of the territory, they may run away a few paces and stop where it is safe.



Watching this behavior, we can see that the returning bird is communicating its urge to fight. But gulls seldom fight. Usually the owners of the territory threaten invaders with their posture and movements and this is enough to protect the territory.

We see this same pattern throughout the animal kingdom. There is much more threatening than there is fighting. This is true even if the animals are not fighting over the boundaries of their territories. Humans act this way, too. When you are angry, you may feel like fighting and you may fight, but you are more likely to shake your fist, slam a door or scream.



When animals communicate their anger with movements or sounds, they do not harm themselves or other members of their species. If they fought every time they were angry, they would be constantly risking injury or even death. It is an advantage to an animal to be able to get what it wants without having to fight.

Although gulls use some sounds to communicate with each other, they communicate mostly with their bodies. A head toss, a stiff neck, touching a mate's beak, are all ways that gulls express the urges they feel. And other gulls react to these movements.

An island where gulls are settled in the spring and summer is an orderly place. Territories are set up. Gulls communicate their needs and feelings to each other through gestures and sounds.

