

sdditional energy on it, and it is allowed to slink away without further damage or persecution.

Before relating all these belligerent activities to our own species, there is one more aspect of animal aggression that must be examined. It concerns the behaviour of the loser. When his position has become untenable, the obvious thing for him to do is to remove himself as fast as he can. But this is not always possible. His escape route may be physically obstructed, or, if he is a member of a tightly knit social group, he may be obliged to stay within range of the victor. In either of these cases, he must somehow signal to the stronger animal that he is no longer a threat and that he does not intend to continue the fight. If he leaves it until he is badly damaged or physically exhausted, this will become obvious enough, and the dominant animal will wander off and leave him in peace. But if can signal his acceptance of defeat before his position has deteriorated to this unfortunate extreme, he will be able to avoid further serious punishment. This is achieved by the performance of certain characteristic submissive displays. These appease the attacker and rapidly reduce his aggression, speeding up the settlement of the dispute.

They operate in several ways. Basically, they either switch off the signals that have been arousing the aggression, or they switch on other, positively nonaggressive signals. The first category simply serve to calm the dominant animal down, the latter help by actively changing his mood into something else. The crudest form of submission is gross inactivity. Because aggression involves violent movement, a static pose automatically signals non-aggression. Frequently this is combined with crouching and cowering. Aggression involves expanding the body to its maximum size, and crouching reverses this and therefore acts as an appeasement. Facing away from the attacker also helps, being the opposite of the posture of frontal attack. Other threat-opposites are also used. If a particular species threatens by lowering its head, then raising the head can become a valuable appeasement gesture. If an attacker erects its hair, then compressing it will serve as a submission device. In certain rare cases a 137