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Possible use of shamming by a brown hyaena in an aggressive encounter with a pride of lions

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Interspecific aggressive encounters have been documented for most species of large African carnivores (Eaton 1979), with the exception of encounters between lions (Panthera leo) and brown hyaenas (Hyaena brunnea). Such an encounter was observed in the Kalahari Gemsbok National Park, South Africa in February 1981. An extract of notes dictated onto tape at the time is presented.

'A loud, drawn out call, somewhere between a howl and a scream was heard from the direction of the windpump. We drove up to investigate and found a pride of two lionesses and five sub-adults 30-40 m from the nearest cover. One of the lionesses was carrying a brown hyaena by the throat. After walking for 10 m she dropped the hyaena which lay motionless as the rest of the pride gathered around it. The hyaena lay motionless for 1-2 min, then kicked spasmodically. The lioness immediately straddled it and again bit its throat, holding on for 3-4 min. When it was released the hyaena dropped motionless to the ground, appearing to be dead except for the occasional blinking of its eyes which still reflected the spotlight beam. Since it remained motionless for 10 min while the lion pride moved away some 10 m and lay in a group, I assumed that the hyaena had been suffocated into unconsciousness by the lioness's throat bite.'

Later events were to suggest that, on the contrary, the

hyaena was shamming rather than unconscious . . .

'The hyaena was still motionless 10 min later when one of the sub-adult lions returned to it, rolled it over with a forepaw and wrestled with it like a domestic cat playing with a large rat. As it was thrown into the air the hyaena either recovered consciousness or stopped shamming, rolled onto its feet and faced the lion with the same scream heard earlier. The lion was deterred long enough for the hyaena to turn and run towards the dunes, limping heavily on one foreleg. The whole lion pride pursued it, though apparently rather half-heartedly because their stomachs were full from feeding on an adult blue wildebeest, (Connochaetes taurinus), which they had killed the previous night. The hyaena reached the sparse bush cover on the dunes well ahead of the lions, who abandoned the chase and returned to rest near the windpump.'

The suddenness of the hyaena's recovery and its agility in facing the lion and running away in no way resembled the unsteady, poorly co-ordinated movements of an animal regaining consciousness and I feel that it was, in all probability, shamming death in an attempt to avoid attracting further attention from the lions.

At least among mammals, shamming appears to be confined to interspecific aggressive encounters between predators — probably because it will be the only successful defence technique when the superior combatant is motivated by aggression rather than hunger, so that it would not injure or kill its victim by attempting to eat it. Shamming would therefore be expected in the present case; the hyaena was outnumbered by a group of superior predators, with no refuge close by, and the lions were not hungry after their day's feeding. The hyaena's shamming tactics were at least partly successful since it was resighted at the same windpump three days later, though its continued survival was in some doubt as it was weak and lame from its injuries.

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Reference

EATON, R.L. 1979. Interference competition among carnivores; a model for the evolution of social behaviour. *Carnivore* 2: 9 – 16.