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Respecting animal diversity for its own sake

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Busy as a bee. Industrious as a beaver. We like to apply observations from animals to humans. Should we? Animals have evolved strategies that 'work' for them, though sometimes animals can be quite shocking. I look objectively at what animals do. And, if it's different from how we humans may solve a particular problem, I'm intrigued. Here are two examples.

Picking up on the long-term RMBL marmot study started in 1962, my research group has been studying why marmots leave home. Marmots are social and live in groups. Unlike humans in the United States, most males leave as yearlings and about 50% of the females never leave. Dispersing marmots get to spread their genes around, but they may be killed by predators or by marmots in another group that they attempt to join. Why do some stay and others go? Studying coyotes, Dr. Marc Bekoff suggested dispersal in many animal species could be explained by social connections; those that play together stay together.

Using approaches that were developed to study human social networks (Facebook, Google, and the CIA use these sorts of statistics to quantify friends, identify important websites, and find terrorists), we found that females who were interacting with lots of other marmots were more likely to stay. Importantly, we found that the number of interactions was much more important than whether they were pleasant. For female marmots thinking about leaving home, being lonely is a bigger deal than having a nagging mom. For males, social network measures were less important predictors of dispersal. A guy's gonna do what a guy's gonna do, no matter how much attention he gets from his family.

OK, on to an example where marmots differ from humans. Male marmots have a tough life. Almost all disperse as yearlings. They've got to survive out in there and try to settle in a social group. Few make it. Most marmot groups have one male and one to several females. However, some groups have more than one male. In these groups males simply tolerate each other. They don't seem to help each other out. But, they also don't seem to fight too much. OK you may ask, but who breeds? Great question! Well, it turns out that we see a bit of everything: one male monopolizes all the females, males monopolize different females, males share females. Sounds like a soap opera, right? It get's more interesting.

Not surprisingly, living long and mating indiscriminately is what the most successful males did to leave lots of offspring. What, you may ask, does mating indiscriminately mean? It means mating with your daughters, aunts, mother, and

grandmother! Remarkably, this was in spite of demonstrable costs to inbreeding. Offspring from such matings were less likely to survive. However, the numbers don't lie: those males that mated indiscriminately left the most offspring.

Studies of these behaviors don't offer much for understanding humans. Human cultures largely forbid inbreeding. Indeed, perhaps alone in the animal kingdom, humans have morals, and can choose what to believe and do. But, animal behavior does provide insights. You might be repelled by some of what happens in the animal world, but we can learn a lot by exploring 'biomimicry'. Nature provides a plethora of examples of how to live, manufacture goods, and solve problems. And if you have a daughter you'd like to be a bit more independent, I'd recommend that you don't nag her. Just give her some space.

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