

Procreation vs. Recreation: When Necessity Begets Excess

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In nature, ecosystems have a variety of methods of maintaining balance. Many of these relate to population control. The ruling factor here is carrying capacity—a combination of food availability, competition, and available habitat space that dictates how many organisms can live in a given area with a given population density. In the animal kingdom, the effects of this regulatory mechanism can be seen in infant mortality, abandonment, infanticide, starvation, or smaller litters/restrained breeding. For animals, sex takes place out of necessity—the need to procreate—and is curbed or limited when more young are unnecessary.

Some animals have even developed physiological mechanisms to assist in controlling where, when, and how many young they will have. Some are crude, such as horses, who can hold off labor until they feel completely safe to foal. This is dangerous, and sometimes results in the death of the foal if the mare waits too long. It also has limited use, as she can only wait for up to a few weeks. The armadillo has evolved to an even better system of delaying giving birth. It can delay fetal development for up to three years after conception if conditions are not to their favor.

Better still is the physiological “birth control” employed by rabbits. If living conditions are too crowded and the mother is too stressed, female rabbits actually have the ability to absorb most to all of her litter back into her body before they finish developing. While conditions must be harsh to elicit this abortion result, when the rabbit population is too great or food is too scarce, the rabbit has a better option than bringing more competition into being.

Yet this merely covers how animals can alter their sexual habits to maintain a stable population. If they fail to do this on their own, nature will take over by providing food shortages, increased competition for space and resources, and increased predation or disease.

Humans, on the other hand, have taken sex and changed it from a necessary act to perpetuate the species to a recreational activity to be done with whomever, whenever the urge strikes. Or worse yet, feel the need to have rabbit-sized litters for families due to cultural or sociological pressures. In addition, due to human meddling, we have created an artificial carrying capacity, not truly representative of what our Earth can maintain, but rather what we can force it (artificially) to uphold. The result is a ridiculously exploding population and a blind forward rush to inevitable biosphere collapse.

This population explosion as a result of a changed view of procreation manifests in different ways in different places. In some countries, the number of children you have is a status symbol. Other cultures have older generations falling back on younger ones when they become incapacitated, so more children is assured future care. And some places just flat out have no self-control, fraternizing right and left without practicing any of the variety of contraceptive systems available. Worse still are the places that misunderstand the idea of contraceptives and how they are supposed to function.

Much of our current problem stems from past trends. To start with, our population began its steep increase around the turn of the century. In the past, having large families was necessary to ensure the survival of both the parents and children. Until the development of antibiotics and vaccinations in the 1800's, few children survived to adulthood due to the rampant spread of poxviruses, rheubella, measles, mumps, and other dangerous childhood diseases. The more children a single family could have, the better their chances of having one or two survive to marriageable age.

This can hardly be seen as irresponsible, but rather as working within the given constraints of the environment. However, with the advent of advancing medicine and preventative treatment, children's chances of surviving to their teens drastically

increased. Yet in many places the number of offspring produced by the parents did not decrease to compensate for this rise in survival. The result was an increase in marriageable people who in turn would follow the trend set by their parents.

Other cultures see children as a sort of Health Care for the older generation. Up until the limits set on population in many of the oriental countries, parents would have many children so they would be cared for once they reached an age where they could no longer support themselves. The more children they had, the better the chance they and their families could care for the elderly generation. While this is not practiced so much anymore, in some underdeveloped nations where people still practice tribalism and lack many ideals of civilization, children can almost be a status symbol. For a man to produce many children is a sign of his virility and thus his strength and capacity. These types of places lack birth control practices or the education needed to properly implement them.

Many of the problem areas have been provided with contraceptives but the population is not properly educated in their usage. Some African countries, once provided with condoms, took to using them with gusto, but failed to heed the warning that condoms do not prevent the spread of HIV/AIDS, nor are they a guarantee against pregnancy. The same goes for birth control pills—they work most of the time but not all of the time. Thus in an overly-promiscuous culture or one encouraged to sexual freedom because of the “protection” provided by contraceptives, birth control systems are not particularly useful.

The last factor contributing to our population problem is our artificial environment. As explained earlier, if the organisms within an environment fail to regulate themselves, nature will do it for them. However, we have removed nature from the picture. In most places, we never really run out of food because it is mass-produced and even genetically engineered, then shipped to wherever it is needed. We build up instead of out, making extreme usage of the limited amount of ground space available for living in. We stretch our natural resources to the breaking point, being willing to use them up rather than allow moderation to replenish them with time. Even disease is really no longer a way of negating a run-away population (though at the rate AIDS is

spreading, in the next 30 years it may apply). Every factor nature would normally utilize to stabilize a population's growth has been taken out of commission.

So the stage has been set—longer life expectancy, large families, poor application of birth control, and lack of environmental factors all combine to a potentially ugly population spike. The environment demonstrates two types of carrying capacities. An S-curve is seen when environmental factors help keep the population in check. It demonstrates an increase in population until it reaches the carrying capacity, at which point it levels off and fluctuates slightly about that line. A J-curve can be seen when environmental factors have been removed and a population can grow with most of the restraints gone. The population spikes to an incredible point, at which point the resources that population was using are gone and the population plummets to near extinction. If there are enough organisms left to make a comeback they may recover. On the other hand, if the resources are slow to replenish themselves, that population may go extinct.

The United Nations Population Division of the Department of Economic and Social Affairs has projected three possible future populations based on current trends, one high, one medium, and one low. The low population projection decreases the world population in 2150 to fewer than 5 billion, probably as a result of widespread disease or drastic improvement on population control. The medium curve actually levels off at about 10 billion, perhaps as a result of better population maintenance and some environmental limiting factors.

The high curve shows a frightening similarity to a J-curve, as the population spikes from 2.5 billion in 1950 to almost 25 billion in 2150. Unless we've terre-formed other planets, I don't see how that many people can even live on this planet, never mind find the resources with which to feed everyone. The only place these people are springing up from is sexual activity, indicating a worldwide choice to ignore the consequences of irresponsible sexual actions. Cultural differences aside, for our population to grow that much people must be having three to five children each, in addition to an increased longevity. This type of population spike, like the J-curve, can result in only one thing—a complete collapse of the

population. If the Earth is that badly overpopulated, it is possible the resources would never renew either, leaving nothing for the human survivors to fall back on.

Overall, human habits are a far cry from the animal kingdom, whose environment and personal actions maintain procreation only by necessity. There are too many factors allowing for the uncontrolled growth of our population. Irresponsible procreation will hurt everyone in the long run. Perhaps it is the advent of a new culture in which free sex is a fine recreational activity and procreation is far from anyone's mind, but like most things, excess is dangerous. Sex can be a cultural recreation activity as long as people take steps to curtail the consequences, and remember that you do not need six children to ensure the survival of your species.

References

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