Sunday, January 24, 1988
THE GREX FACTOR
Proverbs 6:6-11; Matthew 6:25-34

Have you noticed that in our modern technological and rational society, we frequently tend to put down animals and other so-called lower forms of life? We act as if we human beings know it all and that there is little we can learn from other life forms. We even describe our violent, overly aggressive behavior by calling it “animal behavior,” when many times, animals would not behave as we do at all. For example, animals rarely kill just for the sake of killing. They do not commit murder; they kill for food. We do animals a disservice when we describe a murderer among us as an “animal.” And maybe we do vegetables a disservice when we describe a human being who has lost all of his or her mental capacities as a “vegetable.”

Animals and other forms of life operate mostly or entirely on instinct — on built-in, inherited behavior. Their instincts are clear, immediate, and uncluttered. The Hopi Indians say that animals are closer to their original instructions. I am not suggesting that instinct is better than reason, only that many of our modern problems may have something to do with our loss of instinct, our “animalness.” We are out of balance. Reason has become supreme and is ruling over a lot of destruction.

There is much we can learn from animals and other forms of life. In the Book of Proverbs in the Old Testament, we are admonished to “Go to the ant, consider her ways, and be wise.” Thus, it should not surprise us that Jesus, in the Sermon on the Mount, said, “Look at the birds of the air, and learn from them. Consider the lilies of the field and learn from them as well.”

Some of you might remember that in a sermon last fall, I used wild geese as an illustration and what we can learn from their behavior — especially the fact that geese flying in formation fly seventy percent faster than a single goose. And not only can they fly faster in formation, but also for longer periods of time. How wild geese discovered this advantage, I do not know. The point is that we can learn a lot about how we are to live and work together by observing other creatures in God’s creation.

We can even learn from one-celled organisms. I believe God has made all of creation and made it good, and that in some mysterious way, God is in all of creation, guiding it, giving it purpose and direction. Here’s one example.

In the Pacific Northwest of America, there lives a single-celled organism called a slime mold. The slime mold, like most of God’s creation, is concerned primarily with survival, largely dependent upon where the next bit of food will come from. The slime mold inhabits the damp, moist environment of the forest floor, living off the detritus the trees provide. Like most of us, the slime mold is quite content to live through its life cycle in an undisturbed and well-cared-for manner. However, even the slime mold is subject to reality crashing in on it in the form of environmental change.

It happens that periodically the food supply of the slime mold becomes dangerously low, and the slime mold is forced to respond to environmental pressures. It must adapt or die. Faced with the threat of extinction, the single-celled organism begins to emit a substance called cyclic A.M.P. The emission alerts other slime molds in the area as to the hereabouts of its neighbors, and they begin to move toward each other.

There is no slime mold leader. No one says, “women and children first,” but rather a sensing by each that there are other slime molds out there in the same threatened condition. Suddenly the emission of the A.M.P. increases and begins to synchronize with the emissions of other slime molds. It is through the synchronization of the A.M.P. that the message is spread far and wide, enabling the convergence to take place.

But this is not the end of the story, for the slime mold has only taken its first step toward survival. When one slime mold meets another, they merge. As other slime molds join in, they form what is technically called an aggregate or GREX. The GREX, made up of hundreds and thousands of individual slime molds, takes on a life of its own and begins to move around as a GREX unit in search of food. The GREX is even more curious in that the larger it grows, the more it begins to resemble a human brain. Now again, there is no leader saying, “you be the feet and I’ll be the head.” Oh no, not in the world of slime molds.

How does it organize itself, you may ask. The GREX unifies itself into a torus. A torus looks like a doughnut in the sense that the slime mold individuals recirculate themselves through the entire structure, coming up through the center, over the rim, and down again, all the while continuing on its search for nourishment — but now in mass. If in its early stage the GREX discovers an adequate food supply, it separates itself, and the individual slime molds return to their previous lives. If, however, the GREX does not eventually succeed with its mission, it enters into a phase shift. It does this by first stopping the toroidal movement, and it sort of flops onto its side and sends out fine hair-like, light-seeking structures called fruiting bodies that begin to spore out the next generation of slime molds.

One-celled organisms aren’t so dumb after all. Perhaps there is a “consciousness” and “purpose” in nature. Maybe you saw the article in last Sunday’s Journal-Star on this subject. It was about a conference that the American Geophysical Union is holding this March in San Diego to consider the notion that our entire planet is a single living entity. One hypothesis is that the entire range of living matter on earth (I would not limit it to so-called living matter, but I believe all matter is alive in some way), from whales to viruses, from oaks to algae, could be regarded as a single living entity. And this super-life-form, made up of trillions of individual organisms which are all interconnected, is capable of manipulating the Earth’s atmosphere to suit its overall needs and is endowed with faculties and powers far beyond its constituent parts. The whole is greater than the sum of its parts, although that’s not what we learned in geometry.

Actually, this hypothesis, called the Gaia Hypothesis, named after Gaia, who in Greek mythology was earth personified as a goddess, is not so different from the GREX factor at all. It simply takes it further and maintains that like the slime mold, the super-entity of life on Earth has coordinated functions, and even a survival instinct, that go beyond those of its component species.

The GREX factor: It can and does operate among human beings. It is first of all, being able to sense when others need us and then coming to their aid. Perhaps there are instances when you have felt that someone needed your help, and you appeared on their doorstep, and they wondered how you knew, and maybe you wondered how you knew also.

Or have you noticed how young people, in particular, seem to know when a party is going on somewhere, and by some mysterious process, they show up without having been specifically invited? They have a sense that something is happening somewhere and find it.

Perhaps you have also noticed that some people, at least in their present state of development, are ungrexable: they seem to have almost no instinct or sense that other people need their help unless their help is specifically and directly asked for. Or they have trouble working together in a group. They have difficulty cooperating with anyone. Teamwork, for them, is almost impossible.

Secondly, in addition to being able to sense when others need help and then going to their aid, grexability is the capacity to be together with other human beings without dominating or taking charge. Sometimes it is necessary for the function of the leader/follower to be circulated through the group, like the toroidal movement of the slime mold.

Thirdly, the GREX factor recognizes that we are unique individuals, and yet we are interdependent and in so many ways connected — not only to other human beings, but to all kinds of creatures in God's creation. The GREX is dependent upon the honoring of both the individual and the group; the absence of one or the other destroys the GREX. It recognizes that God has so made us that we are meant to live in community with others.

And now, let's take this one step further….

Not only can we learn from other living organisms and from nature as a whole, but we are also discovering again that as human beings, we are, as Dr. Lewis Thomas puts it, embedded in nature. We are learning in a new and fresh way in our time how interlocked we are — not only with each other but with all of creation. The old, clung-to-notions most of us have held about our special lordship are being deeply undermined.

In fact, Dr. Lewis Thomas maintains, "A good case can be made for our non-existence as entities. We are not made up, as we had always supposed, of successively enriched packets of our own parts. We are shared, rented, occupied." Then in another one of his essays, Dr. Thomas goes on to describe the many little creatures which live within us and without which we could not live. "Without them, we would not move a muscle, drum a finger, think a thought." Every creature is, in some sense, connected to and dependent on the rest.

However, watching television, you'd think that most of the little creatures are our enemies, especially those we call germs or bacteria. Sometimes it seems as if we are surrounded on all sides by human-seeking germs, shielded against infection and death only by a chemical technology that enables us to keep killing them off. We are instructed to spray disinfectants everywhere — into the air of our bedrooms and kitchens and with special energy into bathrooms since it is our very own germs that seem the worst kind. We apply potent antibiotics to minor scratches and seal them with plastic. Plastic is the new protector; we wrap the already plastic tumblers of hotels in more plastic and seal the toilet seats like state secrets after irradiating them with ultraviolet light.

We are oftentimes led to believe that we live in a world where the microbes are always trying to get at us, to tear us from cell to cell, and we only stay alive through diligence and fear and by using the right antiseptics and sprays.

Of course, some bacteria and viruses do cause us a lot of trouble, but again, as my favorite medical philosopher Dr. Lewis Thomas points out, "Even in our worst circumstances, we humans have always been a relatively minor interest of the vast microbial world…Disease usually results from inconclusive negotiations for symbiosis, an overstepping of the line by one

side or the other, a biologic misinterpretation of borders.” That sounds very much like what causes most of our human conflicts.

Jesus didn’t know about the slime mold and the GREX factor, or that we live in a world of microbes without whose help we could not live, but if he had, these would’ve been perfect examples for parables, and I believe he would’ve used them the same way in which he used the birds of the air and the lilies of the field.

So, pay attention to the GREX factor. To be a Christian is to be a unique individual as God has created you, and at the same time, it is to be a part of a community — a community that senses and discovers where people are in need and then goes to their aid. Following Christ is a private matter, but also something that can only be done in concert with others. And when we are together, praying and working as a unit, God’s Spirit is with us in a way so that the whole is greater than the sum of its parts. Amen.