

SPECIAL BABIES AND THEIR PARENTS

Calves, Colts, Kids, and Others

**How Do All Those Babies Live, Develop, and Learn
Why Do They Behave So Differently**

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Introduction

The stories we are about to describe result from unusual and sometimes astonishingly different kinds of human and non-human babies, and the different ways the babies and their attending mothers carry out their life patterns. Our descriptions of these remarkable variations in the manners of different animals usually turn out to be completely understandable. The stories we are presenting consist of intriguing examples of how dramatically different behaviors have evolved across the many generations of such well known animals as cows, horses, and humans. All of the stories we present are based on true occurrences, typically and extensively familiar as results of our long-term association with the animal species we will describe and explain. The names of people used in our stories are fictitious, and are not those of the authors.

Bill Davis and His Livestock

Bill Davis is a farmer. On his farm he keeps herds of cattle that are variably colored, easily handled, and well chosen for producing beef cattle. Bill Davis also maintains herds of working horses that are bred to sort and move cattle effectively.

As a careful overseer of his livestock, Bill seeks always to know exactly what his animals are doing. Above all, he wishes his livestock to be consistently contented and good-natured. Bill knows that every spring his cows will have new calves and his mares will have new foals. Bill tries very hard to understand exactly what his livestock are doing, all year round, and whether or not they are comfortable, or perhaps nervous and frightened. He likes his cattle and horses always to be friendly and happy in the big, mixed, grass-, clover-, and alfalfa-filled pastures where they mostly eat fresh green plants during the summer and dry, cured hay in the winter. Bill is aware that his livestock comprise the most important part of his farm. He continually pays

attention to his cattle and horses so that he will know immediately whenever anything seems to be going wrong.

The Hungry Black Heifer

One morning Bill was driving on the road alongside his cow pasture, on his way to the little town of Bridgewater where he expected to obtain some supplies from the hardware store. But, as he always did, Bill was keeping his eyes on his cows and calves, making sure that everything was just right.

Driving slowly down along his cow pasture, Bill frowned a little when he began to look at his cattle. Something was wrong, and Bill stopped his pickup truck and began trying to figure out what was happening in the pasture. Right away, he realized that a little white-faced black heifer calf was running from one of the cows to another, all around the herd. Bill saw that the little heifer, born on the morning, was trying to nurse a cow -- any cow she could find who would let her have some milk. Bill looked around for the calf's mother. He soon realized that the black calf's mother was not there, and this had apparently caused the little heifer to become frantically hungry and thirsty. The calf was not getting milk because none of the cows would let the little heifer nurse. They kicked her in the head and butted her on her side, and they hurried away whenever the black calf came near enough to nurse the cows. Bill understood that the calf would not be able to nurse cows that had their own calves. But that black calf still hadn't given up.

Bill looked around the pasture in all directions, but he couldn't see the black calf's mother anywhere. So he crawled out of his pickup truck and climbed over the fence into the pasture. There he walked up the hill, trying to see if the black calf's mother had for some reason traveled up and over the steep hill in the pasture. Sure enough, he found her on the other side of the hill, and there Bill got a big surprise. The black calf's mother had given birth to a second heifer calf, just one day after the other black calf had been born. The new calf was also black with a white face, and it was just starting to nurse its mother. That was the same mother that the first black calf must have nursed, at least once, on the other side of the hill. But the cow was allowing her second calf to nurse the mother.

No wonder Bill didn't understand what was going on. None of his cows had ever before had a cow give birth to twin calves at almost the same time. So Bill wasn't sure what to do, and he was wondering why the first black calf had gotten so far away from its mother. Bill walked back to where the first black calf was still trying to nurse the other cows. He lifted the black calf and carried it a little way toward its mother. But it was too heavy to be carried for long, partly because the calf kept struggling to escape from Bill's big arms. So Bill finally put the calf down and instead began to push and guide it up the hill toward where its mother was.

When Bill finally managed to get the black calf close to its mother, the calf right away started trying to nurse her mother. But, surprisingly, the cow kicked that first black calf and butted her so hard that she finally ran a little ways away and just stood there, forlorn, alone, and hungry, because she had no mother who would even allow her to drink her own mother's milk. Bill stood for a while, frowning, with his hands on his hips. He was trying to think how he might deal with this unusual situation. He didn't know why the cow wouldn't allow her own calf to nurse. Why

did she kick and butt her calf, and move away whenever she came close to that first calf? He realized she was demonstrating that she wanted only to take care of the second calf.

Finally, Bill decided to try something he had never done before. He went back to his truck and drove to a nearby dairy farm where he knew that his friend, the dairy farmer, saved fresh cow's milk that he used to feed the newly birthed calves. Bill knew that the new young dairy calves were helped by drinking the fresh milk of a cow that had just begun nursing. The special reason for this was that the fresh milk of a cow with a new baby calf had in it a substance called colostrum. Colostrum helps newborn calves from getting infections, and most farmers had long ago learned that a new calf needs colostrum in its first milk.

Bill's dairy farmer friend saved colostrum milk from the cows that had recently birthed a calf. The colostrum milk was kept in a refrigerator for just that purpose, and was then warmed and fed to the new young calves. Those calves were taken from their mothers, who would eventually be producing the enormous amounts of milk that dairy cattle were meant to produce so that people could drink as much milk as they thought would be good. As Bill knew, beef cattle produce much less milk, compared to dairy cattle, but enough for their calves. The dairy calves were nursed with appropriate amounts of milk by helping them learn to access the bottles of milk set out in the right positions for the baby dairy calves. Some of these calves would be kept as dairy cows; others would eventually be sold to other folks.

The older black calf had almost certainly gotten a significant drink of colostrum milk because she was the firstborn, and she spent time, bedded quietly, presumably by her mother, after finishing a bout of nursing. Bill knew that she was more active now than she would have been if she hadn't the opportunity to obtain that first amount of colostrum milk. But Bill still didn't know why the cow would not let her own calf nurse.

The dairy farmer Bill knew to be a good friend, and he gave Bill enough colostrum milk to maintain the health of the black calf. Bill took the milk to his house, fastened a nipple on the bottle, and warmed the whole half gallon of milk. Then he walked down to the pasture, carrying the warm milk, and offered it to the lonely, thirsty, black heifer calf. The calf was obviously eager, and she drank the entire half gallon of milk without stopping. After that, Bill walked toward the barns. He noticed right away that the black calf was walking with him wherever he went, and all the while she was keeping her body tightly against Bill's leg. It was very early in the spring, and the mud was deep all the way to Bill's house. The two of them walked through the cold winter mud for the length of at least two football fields. But the black calf did not hesitate. She kept herself continually against Bill's leg until Bill put her on the back porch of the farm house and let the calf move about on her own. Then Bill went out to the barn and returned with a small metal tank that was usually used for drinking water for the cattle and horses. The tank was also the right size to make a bed where the calf could sleep when it was ready to rest. Bill had put a thick layer of soft dry straw in the bottom of the tank. The black calf stood in the kitchen, staring at the television for a long while, while Bill placed the tank where he wanted it on the porch. Bill chuckled over the calf's interest in television programs.

Later in the afternoon, Bill gave the black calf another dose of colostrum milk. Then he lifted up the black calf and put her in the small tank on the porch. He was surprised that the calf seemed to like the tank, and the soft dry straw that was in it. The calf quickly learned to lie down quietly,

and sleep for most or all of the night. It wasn't long until the little heifer had developed into a contented, seemingly almost independent individual.

Bill thought a while about what had happened with the cow and her twin calves. He realized that every cow has to be sure that her own calf is the one she is allowing to nurse her. Bill began to understand that once the cow's first calf had been left by the mother when she went far away in the pasture and then gave birth to a second calf. Twinning is not frequent with cattle, and Bill understood the possibility that when twins are separated very far from one another, the mother might not think of her second calf because she had been paying all of her attention to it. Bill remembered he had heard that a rancher several miles away had reported some cows that had produced twins. This man explained to Bill that cows seem to regard whatever calf appears when it is born, that calf becomes the sole offspring of the cow that birthed it. He said it was as if the first calf, bedded far away, and perhaps a day or two after the first birth, had become a stranger, even to its own mother. The rancher said he believed that the odor on the calf that had been temporarily alone might be just different enough that the cow might treat the first calf as a complete stranger. Twinning, the man said, is really a rare event, and that probably means that cows are not likely to accept both twins, especially when they are birthed far apart, and perhaps treat their second calf as the only one that belongs to her. That explanation would help understand why a mother cow with twin calves might not be likely to accept both calves. Bill thought about all of this for a while, and wondered if he would ever have a cow with twins, and if he did, would he be able to cause the cow to take care of both of her twins..

After a while, Bill began to call the calf that was orphaned by the name, Daisy. Daisy liked Bill's big brown dog, Maggie, and Maggie liked the calf. As the summer went along, Daisy and Maggie became almost inseparable friends. Daisy liked roaming the house, watching TV, and cavorting after drinking her milk. She continued to be happy in her tank at night. In the mornings she stood up in the tank as soon as she heard Bill moving around each morning. Somehow -- perhaps because she had been blessed with that half gallon of colostrum milk when she was so hungry and so forlorn. There is little doubt that she knew Bill had become her make-believe mother.

One day, when Bill took the bottle to the calf, he started singing the song, "Daisy, Daisy, Give me your answer true. I'm half crazy, all for the love of you. . ." Pretty soon, whenever Daisy heard that song, she would run toward Bill as fast as she could to get her milk.

Sometimes, even after she had become a big cow several years old, and with several calves in her past, Daisy would suddenly run toward anyone who happened to be singing the Daisy song. Bill liked the little heifer that had grown up as a friendly cow who seemed to like everyone. Bill even put small children on Daisy's back and walked along that way. Daisy seemed not to mind at all. Bill was sure that Daisy had become like a friend to him, and to all of the other members of Bill's family.

Bill had also learned that calves know their mothers. But he also knew now that mother cows do not think of their first-born calves as their own if she has a second twin and her attention to the first calf seems to disappear. If the cow casually walked a reasonable distance away from where she bedded a calf, predators would be less likely to sense the presence of a calf in the pasture

near where the cow was grazing. But whenever a cow that has bedded her calf delivers a second calf, usually far away from the first calf, the cow usually either never gets to see the first calf again, or else she may treat the first calf, bedded far from the location of the second calf, as having the "wrong" odor or color, or some other trait that came from the first calf and not the second one. Bill knew now that he had to find a way to cause a twinning cow to understand that she can keep two calves, and not just one. After all, Bill knew very well that his beef cows give enough milk for two calves.

Daisy and the Twin Calves

I have just told part of the story of Bill's first experience with twin calves. A few years later, however, Daisy had her own twins, one black and one red, each with a white face. But, with a little help from us humans, unlike Bill's first experience with twin calves, these two calves became close buddies. We can understand this by telling you about this particular pair of Daisy's twin calves. When a calf is born, the cow carefully consumes all of the fleshy materials, called the "afterbirth," that exit along with the calf itself as it is born. The cow then moves a short distance and remains with the calf to help it secure a meal of colostrum milk from her. The mother next chooses a place of concealment somewhere away from her original birthing place, and "beds" her calf in a place that will be difficult for predators to locate. Then the cow walks away from the birthing place, and proceeds to graze.

The cow's removal of the afterbirth, and her subsequent movements away from the location of the calf's birth, serve to erase or escape the odors. Otherwise, the calf might be found if a predator such as coyotes, wolves, dogs, mountain lions, bobcats, or any other predators should happen by. As with a doe deer and her fawn, a cow "beds" her calf by showing it how to lie down, drop its head and neck back along its body, and remain quiet, scarcely visible, and motionless. Unless a predator actually attacks it, the calf will remain quiet and almost invisible. If a calf is frightened by a predator, or any animal or person even accidentally approaches a bedded calf, the calf is likely to leap up and run off, making its alarm call, presumably bringing its mother on the run, ready to attack anyone that frightens or attacks her offspring.

Even though baby calves do not have strong odors that might give away their hiding places, if a predator happens to locate it, the baby calf is unlikely to survive unless the cow happens to come back quickly and attack the predator. Unfortunately, once a calf has been discovered by predators, saving the calf becomes a serious problem because the predators have found their prey, and this means they can continue to stay with the cow and her calf until the predators can finally drag the calf away and turn it into a breakfast for themselves.

When Daisy, as a grown cow, began to look as though she might have twins, Bill started watching her very closely. Once, Bill had to go to an appointment during the early part of the day. When he returned to the cow pasture, he immediately drove his pickup truck out to where Daisy was standing. Bill was startled (and happy) to see two newly birthed twin male (bull) calves, one black and one red, each with white faces. They were lying a few feet apart, with Daisy still standing near them. It was obvious that Daisy had given birth to the two little twins in the same place, and so, probably, at nearly the same time, except that only the red one had nursed before the second one was birthed. The black twin was obviously a newborn, smaller and lighter

than the red calf. But one of those twins would surely have been left behind if the cow had moved away from the birthing place. Then one calf, likely the younger one, could well have lost his connection with the cow and be lost permanently. During the next year, Bill discovered an example of this when he found a twin he hadn't even known had existed, lying dead in a shallow gulch alongside the fence perhaps 20 feet from the birthing place of the other twin, which survived.

Eventually there was still another example of twin calves. Bill had been walking around in the cow pasture, looking for a cow he knew was near her birthing time. As he walked, Bill heard a small but obvious calf call. Bill immediately turned and walked toward the sound. The sound came again, and by that time Bill knew roughly where the calf was. It was hidden beneath a small thorn apple tree that had a low overhang of branches. Bill believed right away that the calf had been bedded by its mother. Sure enough, he eventually found it there. But the calf did not get up or try to go somewhere else. Bill began to wonder about the calf being perhaps very far from its mother. He climbed a hill to look for the cow, and there she was, with a calf so new that it had not yet nursed.

After the second twin had nursed, Bill herded the cow and calf down the hill toward the calf bedded under the thorn apple tree. The bedded calf came out immediately when Bill caused its mother to approach him with her other baby. The bedded, first-born, little bull tried to nurse but he was butted and kicked by the mother in the usual way that Bill now understood how twins and their mother behave. Not surprisingly, it appeared that a newly born calf can recognize its mother, but the mother may recognize only one of her twins.

Bill tried to make the two calves mentioned above follow the mother by driving all three individuals up to the big barn. Bill herded them into a small lot, with water and food for the cow and her calves. But, as long as Bill watched the cow and her calves, she never noticed even the tiniest bit of interest in the first calf, and she never allowed that calf to nurse her after the initial nursing that gave the first calf satisfying milk from its mother. Eventually Bill asked a girl who worked with him if she and her husband would like to raise the calf not showing any familiarity with either the cow, or the calf that the cow had bedded earlier that day beneath the overhanging branches of the thorn apple tree.

The young couple took the first calf and left the other cow with the second calf. It is obvious that cows that produce twins have serious difficulties in attempting to rear twin calves. But those difficulties can be used to help people who someday find themselves with twin calves.

Making Daisy's Twins Get Along Well

When Bill came upon Daisy's new twins, he immediately picked up the smaller, newer black twin and carried it directly to the other red twin, causing their two bodies to lie solidly against one another. Bill kept them that way for several hours, hoping that the Daisy would begin to smell, lick, and call to both of her twins. Eventually he drove his pickup to the big barn and quickly created a good-sized comfortable pen. He placed two large water buckets in the pen and bedded about half of the pen with dry hay. This would allow the cow and her two calves to rest in the hay and spend the rest of their time in the unbedded and bedded parts of the pen.

After a few hours of keeping the calves together out in the pasture, Bill carried one calf to the truck and kept it on his lap while his helper drove down to the outdoor bedded pen by the big barn. As Bill on the seat of his truck with the calf in his lap, he began to feel an unsettling flow of some kind of very warm liquid, traveling all the way down his jeans and into his shoes. He knew exactly what it was, and he also knew that the red bull calf must have had a significant period of nursing; otherwise, he could never have released a flood of warm water equal to the one that drenched Bill's clothes.

Bill and a helper later nudged the black calf and Daisy until they walked down the lane and into the pen with the other calf. Bill stayed with the twins and kept them close together for several hours in the pen. By that time, both calves had come to know their mothers and themselves, and Daisy knew and accepted them both. About two weeks later, Daisy and her twins were let out with the other cows and calves, and, happily, the three of them behaved exactly like a closely-knit and happy family -- which is exactly what they were. Bill was happy because he felt that now he likely could produce a set of twins that would stay together and be accepted by their mother every time. That is a good omen because, of six cases of twin calves, only three survived: in one case both twins died before they were born; one individual died although its twin survived, and one twin was given to the girl who helped move the second born twin from Daisy. One twin from Daisy was saved by the way Bill tended her, and now Daisy has for the first time fully accepted both of her twins.

The Stallion and the Fawn

Here is a little side story about deer rather than cattle. The story suggests that deer and cows have past connections in their relationships, and probably, for that reason, have retained similarities with one another.

A man I know was out riding his stallion one day, in a cow pasture that had no cattle in it at that time. As the rider and the stallion moved down along a faint rutted track that ran across the pasture, the rider noticed a beautiful and graceful doe moving on the track. She seemed a little confused, or nervous. She looked toward the stallion several times, stopped repeatedly, dropped her head a few times, and then flipped her tail noticeably several times as she finally moved toward the woods on the other side of the cow pasture. Just before the doe leaped the fence into the woods, she took another look, and then disappeared with her tail held vertically like an ostentatious flag.

The fellow on the horse kept on with the stallion he was riding. He noticed that there was a tiny lump ahead of him in one rut of the road where he was traveling. He kept on toward that tiny lump and eventually decided it must be a pheasant that had been wallowing in a dust bowl and now was quiet and motionless.

As the rider came closer he stopped his horse with the little lump lying almost directly under the horse's head. The horse showed no interest or attention to the lump. The rider dismounted and, leaning down, saw to his surprise that the "lump" was actually a tiny fawn that the doe had bedded before she flipped her tail and departed, trying to attract the stallion in her direction so

she could keep it away from her fawn. The fawn's neck and head were folded back, pretty much the way a calf lays its neck back when it had been bedded by the mother cow. The fawn remained motionless, even when the dismounted rider leaned down and looked quite closely at it. Then, suddenly, the stallion "saw" the "lump!" He leaped sideways and backward from the rider, taking the reins with him, galloped out into the pasture, and finally went to grazing. The rider eventually walked over and got his gentle stallion, and continued his ride.

When the mother of a fawn is in danger, she does almost exactly what a cow does with her calf, except that a doe is more likely to bed her fawn more quickly and then flit away from the enemy, and tease it, as if to draw it away from the bedded offspring. The speedy doe seems ready to make herself seem prepared to outrun her enemies, or to disappear from them quickly and repeatedly. She is likely to flash the white underside of her brief but broad tail over and over, as she flits around, appearing and re-appearing; in this way she distracts the enemy so that the fawn is less likely to be threatened by being bedded in the open, and in the immediate vicinity of the sighting of the doe mother.

A cow is more likely than a doe to actually attack the enemy of her offspring. Sometimes, when a doe attacks or threatens a predator, she uses her sharp fore hooves with sudden and startling brief slashes. Because a cow is heavier and less agile, she is more likely to attack with head-butting and kicking while she stands her ground and protects her offspring. But the general behavior of a cow and a doe, first bedding a baby and then defending it, probably had the same background some time along the very long time that these obvious relatives caused themselves and their babies to do the best things when predators come too close.

Horses and Their Foals

Now we need to say something about foals, the babies of mares (mother horses) and how they function in their life ways, especially comparing the behavior of the foal and the mare, also including, perhaps, how they behave when twins are produced.

Foals, offspring of horses (mares), do not behave like calves or fawns, and mares do not behave like grown-up mama cows or deer. As with a cow or doe, a mare goes off by herself to give birth. But a mare tends only to move a little out of her herd and usually gives birth to her foal while a few yards away from the herd. In such a situation, the stallion of the herd, who sometimes will charge or test any predator, or unusual person or animal, usually tends to graze, while continuing to pay attention to the nearby foaling mare. The foaling mare lies down and then rises up again, often repeating this action several times.

Calves tend to emerge with the afterbirth torn partly away, such that the calf's body is not inside an intact "cocoon" of fleshy afterbirth. When the calf is fully emerged, however, some of the afterbirth tends to remain inside the cow for a day or so, and sometimes for a few days, before it detaches from the cow's vulva.

But a foal tends to emerge while it is still inside the wet fleshy "bag" or "pouch" that briefly encloses its emerging body. The foal's nose typically emerges from the pouch that surrounds the foal, sooner or later liberating its nose so it can breathe freely. The foal then struggles its way out into the open. Unlike cows and most other large animals, because the horse foal almost immediately begins to struggle, it is on its feet within 15-20 minutes. When the foal is able to stay upright, it is also ready to run beside its mother. The afterbirth typically passes quickly out of the mare's body. Unlike cows, the mare leaves behind whatever afterbirth continues to be either suspended from the mare's vulva or else completely freed from the mare and left on the ground. Unlike a cow's tendency to consume the afterbirth, mares leave the afterbirth wherever it falls, probably because that has become the best strategy for keeping predators around birthing places because (1) predators may search for some time to locate the widely distributed parts of the mare's afterbirth and (2) the young foal usually will soon be long gone, typically running with its mother.

Horses are speedy animals, both foals and adults. They live in complicated social groups in which there are tendencies of members of the horse herd to show some cooperativeness if predators threaten. Horses are capable of killing predators, especially when several horses are involved, using both their teeth and their sharp hooves, striking with their forefeet, kicking with their hind feet, and stomping vulnerable predators.

A foal has an unusual tendency, or ability, that surely reduces its likelihood of being killed while it is running with its mother. The foal tends to stay very close to its mother while the two of them are running as if they were only a single animal. The newly born foal's legs seem to be almost as long as the legs of the mother, this assisting the foal in staying beside its galloping mother. When long-legged animals run very close together, they make it surprisingly difficult to realize that there may be eight horse legs, and two horses, pounding at a gallop in a kind of confusing twosome.

Horses seem evolved to race away from predators. Unlike cows, horses have the speed necessary for that behavior, and when they are disturbed the entire herd is likely to run as a group, which usually does not help the predator capture its chosen prey. Additionally, when chased, horses may race considerable distances, and as well they often have learned special places where they can hide, and then remain, at least briefly. Cows are the least agile of the three species we have mentioned so far. Both horses and deer are considerably more agile than cattle.

Unlike cows and deer, horses do not "bed" their offspring and then leave them to conceal themselves by lying down while their mothers run away. Horses, including foals, can stay upright, even sleep standing up, and they can take off rapidly and then keep right on running at full speed. The new foals of mares quickly become astonishingly fleet and skillful runners.

So horses are very fast runners -- even the new foals -- and the mother has sharp hooves on both front legs and back legs that can be used to injure or kill a predator that is taking too many risks.

Bill Davis now knows a good deal about new calves and foals, and he also knows how to assist in getting twins to stay together and maintain their relationship with the mother of the twin calves.

A Story about a Young Sorrel Horse Named Cee Cee

I want to tell you a brief story about a tiny new calf whose mother had run away from her new calf, just to get a drink. She did it when I opened the gate for the cattle to walk up to the barn for water. The new mama, however, badly needed water, and when I opened the pasture gate, she took off at a gallop toward the water tank a half mile away. I had to catch the calf because it promptly leaped up and dashed toward the woods when I merely rode just closely enough to look at it. I knew that the barbed wire fence wouldn't phase the disappearing calf at all. So I leaped down from my horse and took off running after the calf. Although I caught the calf before it got under the barbed wires and into the woods, I didn't know what to do with it, because all I had to carry it with me was Cee Cee, a sorrel gelding not even two years old. I was sure the calf would keep right on running if I simply let it go, and I didn't know if the mother would be able to find it in the big pasture.

Cee Cee was just being introduced to start training for use of cattle. He was ground-tied, by which I mean that I had dropped his reins on the ground when I ran to get the galloping calf, while I had been running across the pasture to get the fleeing calf. When I had finished lugging the calf back toward Cee Cee, he hadn't moved.

I carried the calf right up next to Cee Cee and watched him for a bit, to see if he was going to spook with the new experience of having a calf so close to him. He showed no fear, so I held the calf right up to his nose. Cee Cee turned his head toward the calf and me, sniffed a bit, and then moved his head back to the front, sighed, and went back to his previous quiet position and attitude. I decided to try riding Cee Cee with the calf. So I loaded the calf on Cee Cee's withers, just in front of the saddle, picked up the reins, and climbed on Cee Cee, holding the calf steady with one hand as I did it. To my astonishment, Cee Cee didn't seem to mind a tall. He walked quietly all the way of the half a mile up to the barns and the water tank, with the calf on his withers, and he never showed the slightest concern. Unfortunately, Lorrie had gone to town so I couldn't get a photo!

Not surprisingly, I remained extremely proud of that not-quite-yet 2-year old gelding, who later became a lovable mount of our daughter, Nancy, and her two children, Lydia and Alex, who all live in California. After I sent Cee Cee to Nancy and her children, he became their hero, and then the hero of a large troop of Boy Scouts operating out of Santa Rosa, California.

Human Babies: The Most Astonishing of All Kinds of Newborn Babies:

How Do All Those Human Babies Become Grownups? Where (or How) Do We Begin The First Segments of This Complex Story about the Human Baby?

Introduction

Answering questions about human babies, whether single babies, twins, or other multiple births, is extraordinarily difficult, especially compared to simpler animals such as cows, deer, and horses. Indeed, it is probably more difficult than attempts to understand any other kind of baby, and the same is true of the reciprocating behavior of adult humans in coordination with the nature and behavior of their babies. Trying to understand the nature and behavior of human babies, and their actions and interactions with their parents and other adults, is almost certainly the most difficult question anyone can raise about any aspect of any other species. Perhaps the most difficult of all questions involves something that I have called "muted consciousness." By that I mean that humans appear to have been modified by natural selection such that they reduce their own human perceptiveness involving many items that contribute to (in this example) the baby's performance, and the association between the parents and their infants, and also between the parents and their complexly developing children.

Probably the most striking example of muted consciousness is that humans tend not to think about the finiteness of their lifetimes -- about the irreversible fact that some day every single individual organism, including humans, is going to die. This particular muting of consciousness has to be, in most cases, a beneficial effect because the genetic materials of humans can, as a result, generate the strongest attention to their carrier (of genes) and transmit their offspring to the next generation (of genes). Many of the ways by which individual humans save their own lives, for example, escape by making appropriately quick or adept movements when acute

danger is approached. Even when this happens, the person saving his or her own life because of understanding the inevitable termination of the lifetime may not pay a great deal of attention to the risk of death. Certainly, people pursuing their everyday tasks are not thinking about either immediate dangers or the eventual, inevitable ending of all persons' lifetimes.

Below here are approximately a dozen concepts that seem to be most influential, and most difficult with regard to humans and their babies, including comprehension of muted consciousness. These different concepts exemplify the large numbers of developmental processes that are occurring all the time as the baby grows, learns, and also develops in multiple ways. Part of the problem of those who choose to try understanding all of the various changes in a baby's development is how we can discover the manners and sequences by which the different changes in the baby's life and its overall functioning can help us reconstruct the incredible complexities that describe the sequence from newborn to adulthood.

Anyone who attempts to understand babies, as complex as human babies are, will gain from seeking to construct the sequence according to which the individual traits of babies have emerged, expanded, and flourished. To my knowledge, no one has been able to develop the sequence of the dozen or so separable traits of the developing baby, including the sequence by which the baby gradually changes toward adulthood. But when there are complex and multiple major events in the life of the developing baby, it is not going to be easy to figure out how the details of the development of the human baby, and their sequences, take place.

I will make a tentative list of traits, and try to arrange the different traits in a sequence that might be accurate with regard to the development of a human baby:

- (1) The baby is carried, protected, nursed, and cuddled by its mother, and maybe by its father. This trait (including the four items listed) is surely likely to be either the first trait in the above list being discussed here or else one of the others.
- (2) If a baby is nursed, protected, carried, and cuddled, it is likely to be considered altricial (helpless) (that can be understood as a multiply based but singular positive action assisting the infant).
- (3) Human babies may begin to lose its hair (if they ever had hair following becoming a human infant). I am assuming that the early babies of humans and the adults of their species were all more or less hairy.
- (4) Babies may also become more helpless, if (or "as") they tend to be protected and tend to become hairless; also, the closely tended baby may gain by becoming more helpless, a change which can enable the baby to learn more and faster in certain regards. This change can contribute to the development of bigger and more complex brains of babies -- even if it mainly means that the baby is in a position to enable it to generate a bigger and later on more effective brain as a social tool, or on its way to becoming a social tool.
- (5) It seems likely that as babies continue to develop in the way described above, cooperativeness between baby and mother (and father) is likely to grow. Such changes can begin kinship, sociality, reciprocity (cooperativeness and cooperation), [and leadership.]
- (6) What is the relationship between cooperativeness and competitiveness, and how can we integrate those two important concepts, when they can, virtually and without direct understanding, proceed to become conscious about cycles between those same two

concepts? How has the human brain been developed as a special social tool (intelligence). We must take into account that babies should be increasing their intelligence physiologically, and as well by learning from what their parents do and what happens to them (the babies)

It is important that traits 7-10 are actually traits of mothers and fathers, and their interactions. But we need to figure out how selection has caused these traits to function in relation to the development and performances of the baby, or at least enhanced some aspect(s) of the baby's development and performance. It appears that traits 7-10 are involved with mother-father (male-female) traits, but there is surely no doubt that these traits are connected with the baby as well.

We need to figure out the significance of male-female interactions because we cannot escape the significance of what happens to the baby, and what the baby is caused by, when the parents are interacting in important fashions.

(7) What is the nature and importance of concealment of ovulation? I have suggested that it is a trait enabling the female to identify superior males, a decision that is likely to produce superior babies, which also gain from the presence of a superiorly reproductive male. Of course, changes that represent previously mated males and females have likelihoods of being tangled with babies of the different males involved.

(8) How can we explain menopause in relation to all of the other traits? I would suggest that menopause is a reflection of the appropriate time and situation to shift from producing more children to benefitting existing children of a (or some) previous situations of the male -- and perhaps potentially attending other relatives in the family.

(9) What are the complexities of understanding competition by males for females (and vice versa?). [See above for some comments]

(10) Precisely how does paternal care meld with all of the other nine(?) problems in understanding the extremely complex inter-relationships of all the different aspects of the lives of our extraordinarily difficult babies and parents? Any effort to bring together everything relating to male-female connections, and parents of babies, will not be figured out until virtually all of the 10 items being discussed here become clear and explainable.

Unlike the simplicity of the few examples of calves, fawns, and foals, we have to deal with all of the several above ingredients that comprise at least the phenomena that make up the organization of the human baby -- and maybe there are two or three times more components, or more kinds of complexity than we can even comprehend as we begin trying to explain the complex flows of the births and development of human babies. We cannot omit any of those components, whether they came first or last, no matter how they came about, how they developed, or how they managed to combine the components that might enable us to explain some things about the human baby.

We have to know all of the features of baby behavior and make sure they work together harmoniously. And we cannot know, without extensive searching, whether individual

components of the human baby's organization have appeared and developed simultaneously -- all together or partly together, individually in some kind of sequence, or in what pattern of any such sequence.

Think about it this way: It is likely that all of the attributes of human babies that are involved in development of the baby almost certainly have arranged and developed their ways of doing things, and in some cases they have done it by attaching one or more traits to one or more other traits. We have to take into account that we don't know yet exactly how the ten (or more) traits being discussed will eventually be understood in terms of the sequence(s) by which the ten different traits may have come to all of the parts of the complex that comprises everything babies and parents must do whatever causes human babies to survive to have their own babies in the next generation.

Think, for a moment, of making a rich deep blackberry, pumpkin, or lemon pie, how you do it, and how you know that it is going to be a wonderful pie, even though it may require far more important ingredients than those listed below for the human baby. Some ingredients can go alone for a while, if everyone else happens to lack the same ingredient. But human babies are immensely more complex than a pie -- more unified and yet more packed with almost uncountable components. Such complexities may initially be planned, or put together accidentally. But what we need to understand is how and when all of the ingredients in a baby, not merely a few of them, or several in one state or age, but all components that change during its entire future as a juvenile growing up to middle age and into senility. It has to be that way to compete or "win" in the race by evolution, via natural selection, and with the use of the huge and complicated brain of any and every successful individual human, starting as a baby, and learning across its entire lifetime. We will have to help in learning how the human baby is constructed, manipulated, refined, and polished if we expect to cause the organism be at its best in evolutionary terms.

Whew! How can we (Or: can we?) handle this unique topic, especially in a children's book? Surely, it is going to require stretching our intellects because they will depend on a continual and astonishing meshing -- and probably considerable explanation and simplification. The extraordinarily difficult topics will sooner or later be demanding that we seek continually how to take into account what I have called "muted consciousness." And there will surely be topics that we cannot explain completely unless the readers are older than I had expected for both the cow and horse instances. Nevertheless, we could bring out some really significant examples. . .

