

*Natural Selection and the Hope of Human Love*

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This year we celebrate Charles Darwin's legacy, his new origin story. We have paused to appreciate how liberating it is to have a powerful, evidence-based account of how we came to be. And this sort of appreciation, even self-congratulations, is appropriate. We don't have to duck into dogmatic foxholes or wade through the quicksand of creationism whenever archeologists learn something new. Hardcore critics of religion and we religious liberals can agree on this much: Taking ancient scripture as literal God-given truth inflicts vast and needless misery on the world.

But I am dissatisfied that we usually stop with self-congratulations, ignoring the 900-pound gorilla that fundamentalists see very clearly. And that gorilla is this: our new story—that we evolved through natural selection--does not seem to support our value system. Our new story is about *competition* between and among species. As products of a million-year death-match where only the fittest survive, why do we sing about kindness, fairness, and working for peace? Doesn't our new story define us as living proof of Vince Lombardi's claim that winning is the *only* thing that matters?

This apparent mismatch between our ethics and our origin story is not trivial. All around the world, *origin* stories are also *values* stories. When you tell a story about how things began, you are not just giving *historical* information. What you are *mainly* doing is laying the foundations for a value system that tells how we *ought* to behave in world that originated in that way. When Genesis II reports that God created man but man was a bit lonely, so God made woman as his "helpmeet" (King James), this establishes how men

and women *ought* to relate to each other today and *always*, with implications supporting both patriarchy and homophobia.

Given such pervasive links between origin stories and value systems, UU theologians—that means all of us—have to face squarely the question of how to reconcile our values—love, kindness, peace, the intrinsic worth of all—with natural selection. We can't really expect to advance the cause of liberal religion by dismissing Darwin-doubters while ignoring deep moral concerns behind their silly pseudo-science. To take an example NOT rooted in Christian fundamentalism, there is the Dalai Lama: a paragon of religious tolerance who says that *his* Buddhism accepts anything that is based in reason. Yet he is in print raising doubts about natural selection precisely because it seems to present human existence as a stunning victory in a contest to be the most effectively greedy, the most successful in rapaciously annihilating all competition.<sup>1</sup> To have beaten out so many rivals in this “survival of the fittest” contest, it would seem that humans must be bad-ass right down to the bone. We must be unredeemable and, at core, amoral.

But is this so? Let's consider apes on a plane. Each year, 1.6 billion passengers fly on commercial airlines. We line up to be checked, even patted down, by total strangers. We file into a narrow aluminum tubes and cram into narrow seats hip-to-hip, accommodating each other for long hours. When someone bumps us, we smile weakly, disguising our irritation. Most people ignore the crying baby; a few signal to the struggling parents, by a nod or smile, sympathetic understanding of their situation. If our seatmate has a migraine, even if we don't speak the same language, we empathize and, if possible, attempt to help.<sup>2</sup> Suppose instead 1.6 billion chimpanzees—or even more docile bonobos or gorillas—were packed in with strangers for hours; primatologists tell us the

routine results would be unimaginably chaotic and bloody. We are a *peculiar* sort of primate.

Until recently, evolutionary biologists—in telling the story of human origins—followed the *hunting hypothesis*, originated by Darwin and actively promoted by Harvard textbooks. Darwin argued that “The most able men succeeded best in defending and providing for themselves and their wives and offspring.” The offspring of male hunters with “great intellectual vigor and power of invention” were those most likely to survive.<sup>3</sup> Since smart hunters had more surviving offspring, proto-humans gradually became smarter and smarter—evolving into folks like Darwin and us.

This hunting hypothesis envisioned—and thus legitimated—a “nuclear” family based upon a sex contract. In exchange for a reliable supply of meat for her children, a female would be sexually faithful to a male hunter who could thus be assured that the children he fed carried his genes. Widespread acceptance of this version of the natural selection story has had huge effects on national policy, from childcare funding to the dioramas in museums. For example, in 2005 the US Supreme Court left standing a Florida law banning adoption of children by two gay men. The rationale: “The accumulated wisdom of several millennia of human experience” demonstrates that the “optimal family structure in which to raise children is with a mother and a father married to each other.”<sup>4</sup>

But much evidence is unaccounted for in the sex contract/hunting hypothesis version of natural selection. How does it explain humans behaving empathetically and peacefully while crammed into aluminum tubes with strangers? And is it plausible that even the best ancient hunters could get enough meat, every week, to keep their children

growing? In game-rich areas of northwest Tanzania, skilled Hadza hunters bring home game 4% of the time; it is a brief bonanza, not a reliable nutrient supply. But proto-human and early human children, like all young primates, thrived after weaning only when *fed by others several times every day*. So current anthropological thinking is that children's daily needs were met by collection of nuts, tubers, berries, insects, and small reptiles, but also by large game portions shared by a network of hunters with whom their caregivers had previously established a *relationship*.

We get along on planes today for the same reason that we survived game-scarcity on the ancient savannah—because we have strong skills not just as tool-builders, but also as relationship builders. Even if we are successful just 4% of the time, we have near and distant kin, and also many people who are not biological kin but with whom we have established kin-like bonds: chosen families and beloved friends. If we have a very large network of people for whom we care, then we have as much food-security as is possible. The Lakota speak of their traditional sharing ethic—an ethic pervasive in hunting-gathering societies—as “storing meat in each other’s stomachs”.<sup>5</sup>

The evolutionary success of our species proceeded in substantial degree via building relationships--understanding others' situations and becoming skilled at seeing an image of ourselves in others, even in strangers. New scientific thinking assumes the collapse of the nuclear-family/meat-for-sex version of natural selection and points instead at what we UUs choose to call “the hope of human love.” Our prowess in relationship-building, cooperation, and teamwork is founded on our ability to understand one another—with or without words. Language seems to have arisen as a function of the evolutionary advantage in complex social communication. Some psychologists refer to

the ability to detect and reflect on what *others* are thinking as “theory of mind”. Their work shows that even young human children far surpass other primates in recognizing others’ mental states. Some psychologists also speak of “intersubjectivity,” emphasizing the human eagerness to share not only information, but to participate in the emotional states of those around us.<sup>6</sup>

We intuitively understand what others are feeling, and when we are in direct contact with others in need, we often reflexively seek to help. As the Confucian teacher Mencius put it, anyone who comes across a child at the edge of a well feels at least a momentary sense of alarm.<sup>7</sup> This is such an evident principle of human behavior that we can see it reflected millennia later in the writings of free-market theorist Adam Smith: “However selfish . . . man may be supposed, there are evidently some principles in his nature which interest him in the fortunes of others.”<sup>8</sup>

What is the biological basis for this? Recent discoveries show that humans have a very active set of so-called mirror neurons, cells that fire when we make a gesture or facial expression—but also fire when we see someone else make that same gesture or facial expression. This is surprising only if one has a philosophy of people as encapsulated spirits, walled-off from one other. An Israeli actor, upon hearing of mirror neuron research, replied: “Well, it is quite obvious that when I see a pained expression, I immediately feel that pain within myself.” And Wittgenstein noted that we do not see a facial expression, consider the evidence, and then conclude that the person is sad or happy. Rather, we seem to see, even to experience, others’ sadness or joy directly, even when we can recall nothing specific about their facial expression. Now we know—through PET scans of mirror neurons—just how this works.<sup>9</sup>

The Dalai Lama often uses the simple example of smiling to illustrate how caring for others brings happiness. When we smile at others, they feel happier; seeing *their* happiness, *we* feel happy too. We constantly read emotions and intentions written in the expressions and gestures around us, and our brains are wired to mirror what we see. When I see your suffering, it does pain me; and that can give me a motivation to reduce your suffering so as to reduce mine.

This assumes that I want well for myself, that I care about myself. To love others we must first love ourselves and then see others as similar cases of beings who, like ourselves, want happiness and don't want suffering. A large body of psychological research called attachment theory shows that we become able to love ourselves in the first place only if mothers and/or other caregivers have, in a sense, primed the love-pump, fostering within us as young children the capacity for loving connection. Being understood by and having a sense of existing in the heart of a loving caregiver is what starts our growth into whole persons who intentionally observe, reflect upon and modify our impulses in the interests of others around us.<sup>10</sup>

Thus, to understand our human-ness in terms of our new origin story—natural selection—it is well worth knowing about child-rearing practices among early humans and proto-human ancestors. And here the latest scientific thinking is quite different from the meat-for-sex/nuclear-family theory we hear about in “traditional family” political speeches and sermons. Based on inferences from archeological remains, studies of 19<sup>th</sup>-20<sup>th</sup> century hunting-gathering groups, and comparisons of global practices today, it seems clear that ancient children could not have made it to adulthood without the active

care of multiple adults.<sup>11</sup> Thriving children—the ones who survived to become our ancestors--were fed and cared for by several different individuals.

Sometimes fathers, men with reason to think they might be fathers, step-fathers, and uncles are active in childcare. Cultural patterns of male childrearing vary enormously, but recent studies of the blood chemistry of men in close contact with infants show that they have high levels of prolactin—a maternal hormone associated with breastfeeding—and also decreased levels of testosterone. Biologically, men are well equipped to be caring parents if their ecological, personal or cultural circumstances lead them in that direction.

While mothers also recruited help from older siblings and adolescent girls rehearsing for maternal roles, a growing body of evidence suggests that crucial childrearing help has long come from grandmothers.<sup>12</sup> Rachel Caspari (at CMU) is among many researchers who have shown, by studying ancient teeth, that early humans lived longer than our Neanderthal cousins. Our ancestors valued the aged enough to feed them. Perhaps the transmission of accumulated cultural knowledge came into play, but certainly an extra set of veteran maternal hands would cut juvenile mortality rates. Evidence suggest that this kind of *cooperative childrearing* made it possible for children to be weaned sooner and for women thus to have many more children, scoring an evolutionary advantage over other primates. Orangutans, for example, nurse until age seven.<sup>13</sup>

Since ancient human children could survive only with active and loving care from more than one older person, maybe there were fewer instances of adult mental illness. Neglected children could not survive. But from the time of the first village granary down

to today's super-stores, the food-security our technology allows simultaneously creates the illusion that we are not part of an interdependent web—that we do not really need one another. In extreme cases, affluence even allows us to rear our children without handling them, playing with them, or looking them in the eye. We have nannies, Nintendo—and a booming psycho-pharmaceutical industry.

A 19<sup>th</sup> century poem to motherhood echoes the refrain: “The hand that rocks the cradle/ Is the hand that rules the world.”<sup>14</sup> And it does seem that mother-love has been a crucial part of the global evolutionary triumph of the human species. But what has been crucial is that love between mother and child has not been an isolated relationship, but a model for extended networks of understanding and care. We have mutual insurance companies, churches, nations, food-co-ops, sororities, and softball teams. Imagine a team of anglers from the Kayapo tribe in central Brazil, reading one another's facial expressions, coordinating their movements as they wield together a huge net. Each was raised by a mother and by others who were recruited to collaborate in a circle of love, each attuned to and mirroring the others' hearts. And this thing that the !Kung Bushmen know, that we find our lives by making strangers into a network of as-if kin—this becomes the theme of world religions, where we are all children of Abraham or brothers and sisters in Christ, or children of the Buddha.

So I say: mother-love is the god of our species. By “god” I mean the source of our lives: both our origin and the source of our living values. And by mother-love, I mean not in particular the care of biological mothers, but the mother-like care through the expansion of which we find both happiness as individuals and success as a species. Love has made us who we are.

Even with all of this new understanding, the evolutionary success of human love still takes place within the competitive framework of natural selection. Our particular way of working with each other--seeing into each others' minds and caring about each others' feelings, then sharing via elaborated languages—this has made us very tough competitors. We are bad-ass to the bone—'cause we got love on our side. Natural selection is NOT a moral theory. It just happens that complex moral emotions gave an evolutionary advantage to our species.

Traditional Christians see moral purpose—a divine plan-- in everything. Dante spoke about God as the Love that moves the sun and the other stars.<sup>15</sup> But I think the stars are driven by gravity. Natural forces—such as gravity and natural selection-- are never good or bad; just awesomely powerful. I don't live in colder, crueler world when I accept the utterly non-moral implications of natural selection. Our species has always fought to survive in a cold world; the notion that Love steers the stars is a false-security blanket. Pretending that everything that happens--no matter how appalling--is part of God's plan—doesn't make the world any warmer. What keeps us warm is our love for one another.

Natural selection shows us just how the spirit of life is not a Large Man in the Sky, but a complex of forces *within the tissues of the world itself*. Dylan Thomas sings: “The force that through the green fuse drives the flower . . . drives the water through the rocks [and] drives my red blood . . .” There are no *other* forces. Everything terrible in the tiger and gentle in the lamb, everything of nature's creative and destructive power--it all flows in us now. The difference--between us and the star, rose or rock--is that *we have become witnesses. We stand in awe at the interdependent web*. We are the aperture through which the world beholds itself. **The web evolves us as its eyes and its heart.**

Our bodies, our minds, our science and our love: if we don't recognize them as acts of nature, then we have lost ourselves, forgotten who we are.

That human love arises through competitive processes of natural selection does not mean that love itself is stripped of moral value. William James taught us to grow away from judging the value of things by their origins, and judge them instead by their effects. Knowing the world is driven by awesome forces that neither love me nor hate me, I value all the more the warmth of our communal fires—and the hope it gives. As Rodney King put it: “Can we all get along? . . . Can we stop making it . . . horrible for the older people and the kids... We all **can** get along. . . We're all stuck here for a while. Let's try to work it out.”<sup>16</sup>

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<sup>1</sup> *The universe in a single atom.* (find page number)

<sup>2</sup> *Mothers and Others*, p1-2. close paraphrase.

<sup>3</sup> Darwin: *Descent of man* as cited in *Mother and Others* p147.

<sup>4</sup> *Mothers and others* p 146. The quote here is from 11<sup>th</sup> US Circuit Court of Appeals, whose ruling was left standing by the Supreme court.

<sup>5</sup> Believed to be in *Lame Deer: Seeker of Visions*.

<sup>6</sup> *Mothers and others*, page 2

<sup>7</sup> *Mencius*, find page.

<sup>8</sup> cited in *mothers and others*, page 1.

<sup>9</sup> *Mirroring People*, 260-262.

<sup>10</sup> Based on *attachment and psychotherapy*, wallin.

<sup>11</sup> *Mothers and others*, page?

<sup>12</sup> Bowlby, as cited in *mothers and others* p 124.

<sup>13</sup> *Mothers and others*, p 69

<sup>14</sup> William Ross Wallace (19<sup>th</sup> cent Amer.)

<sup>15</sup> *L'amor chi move il sole e l'altre stelle.* Final line of *The Divine Comedy*.

<sup>16</sup> Ralph Keyes. *The Quote Verifier: Who Said What, Where, and When.*