The Companion Species Manifesto: Dogs, People, and Significant Otherness

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Emergent Naturecultures

From "Notes of a Sports Writer's Daughter":

Ms Cayenne Pepper continues to colonize all my cells—a sure case of what the biologist Lynn Margulis calls symbiogenesis. I bet if you checked our DNA, you'd find some potent transfections between us. Her saliva must have the viral vectors. Surely, her darter-tongue kisses have been irresistible. Even though we share placement in the phylum of vertebrates, we inhabit not just different genera and divergent families, but altogether different orders.

How would we sort things out? Canid, hominid; pet, professor; bitch, woman; animal, human; athlete, handler. One of us has a microchip injected under her neck skin for identification; the other has a photo ID

California driver's license. One of us has a written record of her ancestors for twenty generations; one of us does not know her great grandparents' names. One of us, product of a vast genetic mixture, is called "purebred." One of us, equally product of a vast mixture, is called "white." Each of these names designates a racial discourse, and we both inherit their consequences in our flesh.

One of us is at the cusp of flaming, youthful, physical achievement; the other is lusty but over the hill. And we play a team sport called agility on the same expropriated Native land where Cayenne's ancestors herded merino sheep. These sheep were imported from the already colonial pastoral economy of Australia to feed the California Gold Rush 49ers. In layers of history, layers of biology, layers of naturecultures, complexity is the name of our game. We are both the freedom-hungry offspring of conquest, products of white settler colonies, leaping over hurdles and crawling through tunnels on the playing field.

I'm sure our genomes are more alike than they should be. There must be some molecular record of our touch in the codes of living that will leave traces in the world, no matter that we are each reproductively silenced females, one by age, one by surgery. Her red merle Australian Shepherd's quick and lithe tongue has swabbed the tissues of my tonsils, with all their eager immune system receptors. Who knows where my chemical receptors carried her messages, or what she took from my cellular system for distinguishing self from other and binding outside to inside?

We have had forbidden conversation; we have had oral intercourse; we are bound in telling story upon story with nothing but the facts. We are training each other in acts of communication we barely understand. We are, constitutively, companion species. We make each

other up, in the flesh. Significantly other to each other, in specific difference, we signify in the flesh a nasty developmental infection called love. This love is an historical aberration and a naturalcultural legacy.

This manifesto explores two questions flowing from this aberration and legacy: 1) how might an ethics and politics committed to the flourishing of significant otherness be learned from taking doghuman relationships seriously; and 2) how might stories about dog-human worlds finally convince brain-damaged US Americans, and maybe other less historically challenged people, that history matters in naturecultures?

The Companion Species Manifesto is a personal document, a scholarly foray into too many half known territories, a political act of hope in a world on the edge of global war, and a work permanently in progress, in principle. I offer dog-eaten props and half-trained arguments to reshape some stories I care about a great deal, as a scholar and as a person in my time and place. The story here is mainly about dogs. Passionately engaged in these accounts, I hope to bring my readers into the kennel for life. But I hope also that even the dog phobic-or just those with their minds on higher things-will find arguments and stories that matter to the worlds we might yet live in. The practices and actors in dog worlds, human and non-human alike, ought to be central concerns of technoscience studies. Even closer to my heart, I want my readers to know why I consider dog writing to be a branch of feminist theory, or the other way around.

This is not my first manifesto; in 1985, I published "The Cyborg Manifesto" to try to make feminist sense of the implosions of contemporary life in technoscience. Cyborgs are "cybernetic organisms," named in 1960 in the context of the space race, the cold war, and imperialist fantasies of technohumanism built into policy and research projects. I tried to inhabit cyborgs critically; i.e., neither in celebration nor condemnation, but in a spirit of ironic appropriation for ends never envisioned by the space warriors. Telling a story of co-habitation, co-evolution, and embodied cross-species sociality, the present manifesto asks which of two cobbled together figures—cyborgs and companion species—might more fruitfully inform livable politics and ontologies in current life worlds. These figures are hardly polar opposites. Cyborgs and companion species each bring together the human and non-human, the organic and technological, carbon and silicon, freedom and structure, history and myth, the rich and the poor, the state and the subject, diversity and depletion, modernity and postmodernity, and nature and culture in unexpected ways. Besides, neither a cyborg nor a companion animal pleases the pure of heart who long for better protected species boundaries and sterilization of category deviants. Nonetheless, the differences between even the most politically correct cyborg and an ordinary dog matter.

I appropriated cyborgs to do feminist work in Reagan's Star Wars times of the mid-1980s. By the end of the millennium, cyborgs could no longer do the work of a proper herding dog to gather up the threads needed for critical inquiry. So I go happily to the dogs to explore the birth of the kennel to help craft tools for science studies and feminist theory in the present time, when secondary Bushes threaten to replace the old growth of more livable naturecultures in the carbon budget politics of all water-based life on earth. Having worn the scarlet letters, "Cyborgs for earthly survival!" long enough, I now brand myself with a slogan only Schutzhund women from dog sports could have come up with, when even a first nip can result in a death sentence: "Run fast; bite hard!"

This is a story of biopower and biosociality, as well as of technoscience. Like any good Darwinian, I tell a story of evolution. In the mode of (nucleic) acidic millennialism. I tell a tale of molecular differences, but one less rooted in Mitochondrial Eve in a neocolonial Out of Africa and more rooted in those first mitochondrial canine bitches who got in the way of man making himself yet again in the Greatest Story Ever Told. Instead, those bitches insisted on the history of companion species, a very mundane and ongoing sort of tale, one full of misunderstandings, achievements, crimes, and renewable hopes. Mine is a story told by a student of the sciences and a feminist of a certain generation who has gone to the dogs, literally. Dogs, in their historical complexity, matter here. Dogs are not an alibi for other themes; dogs are fleshly material-semiotic presences in the body of technoscience. Dogs are not surrogates for theory; they are not here just to think with. They are here to live with. Partners in the crime of human evolution. they are in the garden from the get-go, wily as Coyote.

Prehensions

Many versions of process philosophies help me walk with my dogs in this manifesto. For example, Alfred North Whitehead described "the concrete" as "a concrescence of prehensions." For him, "the concrete" meant an "actual occasion." Reality is an active verb, and the nouns all seem to be gerunds with more appendages than an octopus. Through their reaching into each other, through their "prehensions" or graspings, beings constitute each other and themselves. Beings do not preexist their relatings. "Prehensions" have consequences. The world is a knot in motion. Biological and cultural determinism are both instances of misplaced concreteness—i.e., the mistake of, first, taking provisional and local category abstractions like "nature" and "culture" for the world and, second, mistaking potent consequences to be preexisting foundations. There are no pre-constituted subjects and objects, and no single sources, unitary actors, or final ends. In Judith Butler's terms, there are only "contingent foundations:" bodies that matter are the result. A bestiary of agencies, kinds of relatings, and scores of time trump the imaginings of even the most baroque cosmologists. For me, that is what companion species signifies.

My love of Whitehead is rooted in biology, but even more in the practice of feminist theory as I have experienced it. This feminist theory, in its refusal of typological thinking, binary dualisms, and both relativisms and universalisms of many flavors, contributes a rich array of approaches to emergence, process, historicity, difference, specificity, co-habitation, co-constitution, and contingency. Dozens of feminist writers have refused both relativism and universalism. Subjects, objects, kinds, races, species, genres, and genders are the products of their relating. None of this work is about finding sweet and nice—"feminine"—worlds and knowledges free of the ravages and productivities of power. Rather, feminist inquiry is about understanding how things work, who is in the action, what might be possible, and how worldly actors might somehow be accountable to and love each other less violently.

For example, studying Yoruba- and Englishspeaking mathematics elementary school classrooms in post-independence Nigeria and participating in Australian Aboriginal projects in math teaching and environmental policy, Helen Verran identifies "emergent ontologies." Verran asks "simple" questions: How can people rooted in different knowledge practices "get on together," especially when an all-too-easy cultural relativism is not an option, either politically, epistemologically, or morally? How can general knowledge be nurtured in postcolonial worlds committed to taking difference seriously? Answers to these questions can only be put together in emergent practices; i.e., in vulnerable, on-the-ground work that cobbles together non-harmonious agencies and ways of living that are accountable both to their disparate inherited histories and to their barely possible but absolutely necessary joint futures. For me, that is what significant otherness signifies.

Studying assisted reproduction practices in San Diego and then conservation science and politics in Kenya, Charis (Cussins) Thompson suggested the term "ontological choreographies." The scripting of the dance of being is more than a metaphor; bodies, human and non-human, are taken apart and put together in processes that make self-certainty and either humanist or organicist ideology bad guides to ethics and politics, much less to personal experience.

Finally, Marilyn Strathern, drawing on decades of study of Papua New Guinean histories and politics, as well as on her investigation of English kinreckoning habits, taught us why conceiving of "nature" and "culture" as either polar opposites or universal categories is foolish. An ethnographer of relational categories, she showed how to think in other topologies. Instead of opposites, we get the whole sketchpad of the modern geometrician's fevered brain with which to draw relationality. Strathern thinks in terms of "partial connections;" i.e., patterns within which the players are neither wholes nor parts. I call these the relations of significant otherness. I think of Strathern as an ethnographer of naturecultures; she will not mind if I invite her into the kennel for a cross-species conversation.

For feminist theorists, who and what are in the world is precisely what is at stake. This is very promising philosophical bait for training us all to understand companion species in both storied deep time, which is chemically etched in the DNA of every cell, and in recent doings, which leave more odoriferous traces. In old-fashioned terms, *The Companion* Species Manifesto is a kinship claim, one made possible by the concrescence of prehensions of many actual occasions. Companion species rest on contingent foundations.

And like the productions of a decadent gardener who can't keep good distinctions between natures and cultures straight, the shape of my kin networks looks more like a trellis or an esplanade than a tree. You can't tell up from down, and everything seems to go sidewise. Such snake-like, sidewinding traffic is one of my themes. My garden is full of snakes, full of trellises, full of indirection. Instructed by evolutionary population biologists and bioanthropologists, I know that multidirectional gene flow-multidirectional flows of bodies and values-is and has always been the name of the game of life on earth. It is certainly the way into the kennel. Whatever else humans and dogs can illustrate, it is that these large-bodied, globally distributed, ecologically opportunistic, gregariously social, mammalian co-travelers have written into their genomes a record of couplings and infectious exchanges to set the teeth of even the most committed free trader on edge. Even in the Galapagos Islands of the modern purebred dog fancy-where the effort to isolate and fragment breeding populations and deplete their heritage of diversity can look like model experiments for mimicking the natural disasters of population bottlenecks and epidemic disease—the restless exuberance of gene flow cannot be stilled. Impressed by this traffic, I risk alienating my old doppelgänger, the cyborg, in order to try to convince readers that dogs might be better

guides through the thickets of technobiopolitics in the Third Millennium of the Current Era.

Companions

In "The Cyborg Manifesto," I tried to write a surrogacy agreement, a trope, a figure for living within and honoring the skills and practices of contemporary technoculture without losing touch with the permanent war apparatus of a non-optional, post-nuclear world and its transcendent, very material lies. Cyborgs can be figures for living within contradictions, attentive to the naturecultures of mundane practices, opposed to the dire myths of self-birthing, embracing mortality as the condition for life, and alert to the emergent historical hybridities actually populating the world at all its contingent scales.

However, cyborg refigurations hardly exhaust the tropic work required for ontological choreography in technoscience. I have come to see cyborgs as junior siblings in the much bigger, queer family of companion species, in which reproductive biotechnopolitics are generally a surprise, sometimes even a nice surprise. I know that a US middle-aged white woman with a dog playing the sport of agility is no match for the automated warriors, terrorists, and their transgenic kin in the annals of philosophical inquiry or the ethnography of naturecultures. Besides, 1) self-figuration is not my task; 2) transgenics are not the enemy; and 3) contrary to lots of dangerous and unethical projection in the Western world that makes domestic canines into furry children, dogs are not about oneself. Indeed, that is the beauty of dogs. They are not a projection, nor the realization of an intention, nor the telos of anything. They are dogs; i.e., a species in

obligatory, constitutive, historical, protean relationship with human beings. The relationship is not especially nice; it is full of waste, cruelty, indifference, ignorance, and loss, as well as of joy, invention, labor, intelligence, and play. I want to learn how to narrate this cohistory and how to inherit the consequences of coevolution in natureculture.

There cannot be just one companion species; there have to be at least two to make one. It is in the syntax; it is in the flesh. Dogs are about the inescapable, contradictory story of relationships—coconstitutive relationships in which none of the partners pre-exist the relating, and the relating is never done once and for all. Historical specificity and contingent mutability rule all the way down, into nature and culture, into naturecultures. There is no foundation; there are only elephants supporting elephants all the way down.

Companion animals comprise only one kind of companion species, and neither category is very old in American English. In United States English, the term "companion animal" emerges in medical and psychosociological work in veterinary schools and related sites from the middle 1970s. This research told us that, except for those few non-dog loving New Yorkers who obsess about unscooped dog shit in the streets, having a dog lowers one's blood pressure and ups one's chances of surviving childhood, surgery, and divorce.

Certainly, references in European languages to animals serving as companions, rather than as working or sporting dogs, predate this US biomedical, technoscientific literature by centuries. Further, in China, Mexico, and elsewhere in the ancient and contemporary world, the documentary, archaeological, and oral evidence for dogs as pets, in addition to a myriad of other jobs, is strong. In the early Americas dogs assisted in hauling, hunting, and herding for various peoples. For others, dogs were food or a source of fleece. Dog people like to forget that dogs were also lethal guided weapons and instruments of terror in the European conquest of the Americas, as well as in Alexander the Great's paradigm-setting imperial travels. With combat history in Viet Nam as an officer in the US marines, Akita breeder and dog writer John Cargill reminds us that before cyborg warfare, trained dogs were among the best intelligent weapons systems. And tracking hounds terrorized slaves and prisoners, as well as rescued lost children and earthquake victims.

Listing these functions does not begin to get at the heterogeneous history of dogs in symbol and story all over the world, nor does the list of jobs tell us how dogs were treated or how they regarded their human associates. In A History of Dogs in the Early Americas (Yale, 1997), Marion Schwartz writes that some American Indian hunting dogs went through similar rituals of preparation as did their humans, including among the Achuar of South America the ingestion of an hallucinogen. In In the Company of Animals (Cambridge, 1986), James Serpell relates that for the nineteenth-century Comanche of the Great Plains, horses were of great practical value. But horses were treated in a utilitarian way, while dogs, kept as

pets, merited fond stories and warriors mourned their deaths. Some dogs were and are vermin; some were and are buried like people. Contemporary Navajo herding dogs relate to their landscape, their sheep, their people, coyotes, and dog or human strangers in historically specific ways. In cities, villages, and rural areas all over the world, many dogs live parallel lives among people, more or less tolerated, sometimes used and sometimes abused. No one term can do justice to this history.

However, the term "companion animal" enters US technoculture through the post-Civil War landgrant academic institutions housing the vet schools. That is, "companion animal" has the pedigree of the mating between technoscientific expertise and late industrial pet-keeping practices, with their democratic masses in love with their domestic partners, or at least with the non-human ones. Companion animals can be horses, dogs, cats, or a range of other beings willing to make the leap to the biosociality of service dogs, family members, or team members in cross-species sports. Generally speaking, one does not eat one's companion animals (nor get eaten by them); and one has a hard time shaking colonialist, ethnocentric, ahistorical attitudes toward those who do (eat or get eaten).

Species

"Companion species" is a bigger and more heterogeneous category than companion animal, and not just because one must include such organic beings as rice, bees, tulips, and intestinal flora, all of whom make life for humans what it is—and vice versa. I want to write the keyword entry for "companion species" to insist on four tones simultaneously resonating in the linguistic, historical voice box that enables uttering this term. First, as a dutiful daughter of Darwin, I insist on the tones of the history of evolutionary biology, with its categories of populations, rates of gene flow, variation, selection, and biological species. The debates in the last 150 years about whether the category "species" denotes a real biological entity or merely figures a convenient taxonomic box sound the over- and undertones. Species is about biological kind, and scientific expertise is necessary to that kind of reality. Post-cyborg, what counts as biological kind troubles previous categories of organism. The machinic and the textual are internal to the organic and vice versa in irreversible ways.

Second, schooled by Thomas Aquinas and other Aristotelians, I remain alert to species as generic philosophical kind and category. Species is about defining difference, rooted in polyvocal fugues of doctrines of cause.

Third, my soul indelibly marked by a Catholic formation, I hear in species the doctrine of the Real Presence under both species, bread and wine, the transubstantiated signs of the flesh. Species is about the

corporeal join of the material and the semiotic in ways unacceptable to the secular Protestant sensibilities of the American academy and to most versions of the human science of semiotics.

Fourth, converted by Marx and Freud and a sucker for dubious etymologies, I hear in species filthy lucre, specie, gold, shit, filth, wealth. In Love's Body, Norman O. Brown taught me about the join of Marx and Freud in shit and gold, in primitive scat and civilized metal, in specie. I met this join again in modern US dog culture, with its exuberant commodity culture; its vibrant practices of love and desire; its structures that tie together the state, civil society, and the liberal individual; its mongrel technologies of purebred subject- and object-making. As I glove my hand in the plastic film-courtesy of the research empires of industrial chemistry—that protects my morning New York Times to pick up the microcosmic ecosystems, called scat, produced anew each day by my dogs, I find pooper scoopers quite a joke, one that lands me back in the histories of the incarnation, political economy, technoscience, and biology.

In sum, "companion species" is about a fourpart composition, in which co-constitution, finitude, impurity, historicity, and complexity are what is.

The Companion Species Manifesto is, thus, about the implosion of nature and culture in the relentlessly historically specific, joint lives of dogs and people, who are bonded in significant otherness. Many are interpellated into that story, and the tale is instructive also for those who try to keep a hygienic distance. I want to convince my readers that inhabitants of tech-

noculture become who we are in the symbiogenetic tissues of naturecultures, in story and in fact.

I take "interpellation" from the French poststructuralist and Marxist philosopher Louis Althusser's theory for how subjects are constituted from concrete individuals by being "hailed" through ideology into their subject positions in the modern state. Today, through our ideologically loaded narratives of their lives, animals "hail" us to account for the regimes in which they and we must live. We "hail" them into our constructs of nature and culture, with major consequences of life and death, health and illness, longevity and extinction. We also live with each other in the flesh in ways not exhausted by our ideologies. Stories are much bigger than ideologies. In that is our hope.

In this long philosophical introduction, I am violating a major rule of "Notes of a Sports Writer's Daughter," my doggish scribblings in honor of my sports writer father, which pepper this manifesto. The "Notes" require there to be no deviation from the animal stories themselves. Lessons have to be inextricably part of the story; it's a rule of truth as a genre for those of us—practicing and lapsed Catholics and their fellow travelers—who believe that the sign and the flesh are one.

Reporting the facts, telling a true story, I write "Notes of a Sports Writer's Daughter." A sports writer's job is, or at least was, to report the game story. I know this because as a child I sat in the press box in the AAA baseball club's Denver Bears' Stadium late at night watching my father write and file his game stories. A sports writer, perhaps more than other news

people, has a curious job—to tell what happened by spinning a story that is just the facts. The more vivid the prose, the better; indeed, if crafted faithfully, the more potent the tropes, the truer the story. My father did not want to have a sports column, a more prestigious activity in the newspaper business. He wanted to write the game stories, to stay close to the action, to tell it like it is, not to look for the scandals and the angles for the meta-story, the column. My father's faith was in the game, where fact and story cohabit.

I grew up in the bosom of two major institutions that counter the modernist belief in the no-fault divorce, based on irrevocable differences, of story and fact. Both of these institutions—the Church and the Press—are famously corrupt, famously scorned (if constantly used) by Science, and nonetheless indispensable in cultivating a people's insatiable hunger for truth. Sign and flesh; story and fact. In my natal house, the generative partners could not separate. They were, in down-and-dirty dog talk, tied. No wonder culture and nature imploded for me as an adult. And nowhere did that implosion have more force than in living the relationship and speaking the verb that passes as a noun: companion species. Is this what John meant when he said, "The Word was made flesh"? In the bottom of the ninth inning, the Bears down by two runs, with three on, two out, and two strikes, with the time deadline for filing the story five minutes away?

I also grew up in the house of Science and learned at around the time my breast buds erupted about how many underground passages there are connecting the Estates and how many couplings keep sign and flesh, story and fact, together in the palaces of positive knowledge, falsifiable hypothesis, and synthesizing theory. Because my science was biology, I learned early that accounting for evolution, development, cellular function, genome complexity, the molding of form across time, behavioral ecology, systems communication, cognition—in short, accounting for anything worthy of the name of biology—was not so different from getting a game story filed or living with the conundrums of the incarnation. To do biology with any kind of fidelity, the practitioner must tell a story, must get the facts, and must have the heart to stay hungry for the truth and to abandon a favorite story, a favorite fact, shown to be somehow off the mark. The practitioner must also have the heart to stay with a story through thick and thin, to inherit its discordant resonances, to live its contradictions, when that story gets at a truth about life that matters. Isn't that kind of fidelity what has made the science of evolutionary biology flourish and feed my people's corporeal hunger for knowledge over the last hundred and fifty years?

Etymologically, facts refer to performance, action, deeds done—feats, in short. A fact is a past participle, a thing done, over, fixed, shown, performed, accomplished. Facts have made the deadline for getting into the next edition of the paper. Fiction, etymologically, is very close, but differs by part-of-speech and tense. Like facts, fiction refers to action, but fiction is about the act of fashioning, forming, inventing, as well as feigning or feinting.

Drawn from a present participle, fiction is in process and still at stake, not finished, still prone to falling afoul of facts, but also liable to showing something we do not yet know to be true, but will know. Living with animals, inhabiting their/our stories, trying to tell the truth about relationship, co-habiting an active history: that is the work of companion species, for whom "the relation" is the smallest possible unit of analysis.

So, I file dog stories for a living these days. All stories traffic in tropes, i.e., figures of speech necessary to say anything at all. Trope (Greek: tropós) means swerving or tripping. All language swerves and trips; there is never direct meaning; only the dogmatic think that trope-free communication is our province. My favorite trope for dog tales is "metaplasm." Metaplasm means a change in a word, for example by adding, omitting, inverting, or transposing its letters, syllables, or sounds. The term is from the Greek metaplasmos, meaning remodeling or remolding. Metaplasm is a generic term for almost any kind of alteration in a word, intentional or unintentional. I use metaplasm to mean the remodeling of dog and human flesh, remolding the codes of life, in the history of companion-species relating.

Compare and contrast "protoplasm," "cytoplasm," "neoplasm," and "germplasm." There is a biological taste to "metaplasm"—just what I like in words about words. Flesh and signifier, bodies and words, stories and worlds: these are joined in naturecultures. Metaplasm can signify a mistake, a stumbling, a troping that makes a fleshly difference.

For example, a substitution in a string of bases in a nucleic acid can be a metaplasm, changing the meaning of a gene and altering the course of a life. Or, a remolded practice among dog breeders, such as doing more outcrosses and fewer close line breedings, could result from changed meanings of a word like "population" or "diversity." Inverting meanings; transposing the body of communication; remolding, remodeling; swervings that tell the truth: I tell stories about stories, all the way down. Woof.

Implicitly, this manifesto is about more than the relation of dogs and people. Dogs and people figure a universe. Clearly, cyborgs—with their historical congealings of the machinic and the organic in the codes of information, where boundaries are less about skin than about statistically defined densities of signal and noise—fit within the taxon of companion species. That is to say, cyborgs raise all the questions of histories, politics, and ethics that dogs require. Care, flourishing, differences in power, scales of time—these matter for cyborgs. For example, what kind of temporal scale-making could shape labor systems, investment strategies, and consumption patterns in which the generation time of information machines became compatible with the generation times of human, animal, and plant communities and ecosystems? What is the right kind of pooper-scooper for a computer or a personal digital assistant? At the least, we know it is not an electronics dump in Mexico or India, where human scavengers get paid less than nothing for processing the ecologically toxic waste of the well informed.

Art and engineering are natural sibling practices for engaging companion species. Thus, human-landscape couplings fit snugly within the category of companion species, evoking all the questions about the histories and relatings that weld the souls of dogs and

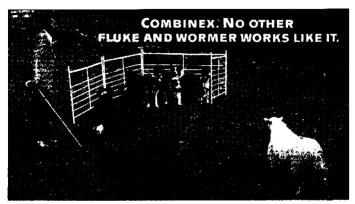


Figure 1. In the mid-1990s, this image of a ewe reversing life's inequities by penning nine Border Collies graced a Ciba-Geigy advertisement for its sheep and cattle flukicide and vermicide. Subject to the hard eye and stalk of the camera, the UK national sheepdog trial champion Thomas Longton stands on his Quernmore farm in Lancashire ready to close the pen on his accomplished dogs. Later, without the reference to Combinex but with a Dutch windmill airbrushed onto the landscape, a mirror image of the scene circulated widely in dogland on the Internet. Without credits or identifying information, the photo bore the apt title, "Border Collie Hell." Even without the relocated Dutch windmill, the photo was always a cyborg composite. For starters, two of the dogs are repeats of the same individuals, but from different angles; the young dogs in the rear are tied by invisible leads to the pen fence; the ewe was melded into the scene from another photo. In The Companion Species Manifesto, "Border Collie Hell" signals the ironic reversals embedded in naturecultures. Animals, people, landscapes, corporations, and technologies are all in on the joke. The photo also pleases those who 1) enjoyed the film Babe, and 2) work with herding dogs other than Border Collies. Thanks to Thomas Longton for the ad brochure and the story. Thanks also to webs of science studies, editorial, corporate, and Border Collie people who helped me track everything down.

their humans. The Scots sculptor Andrew Goldsworthy understands this well. Scales and flows of time through the flesh of plants, earth, sea, ice, and stone consume Goldsworthy. For him, the history of the land is living; and that history is composed out of the polyform relatings of people, animals, soil, water, and rocks. He works at scales of sculpted ice crystals interlaced with twigs, layered rock cones the size of a man built in the surging intertidal zones of the shore, and stone walls across long stretches of countryside. He has an engineer's and an artist's knowledge of forces like gravity and friction. His sculptures endure sometimes for seconds, sometimes for decades; but mortality and change are never out of consciousness. Process and dissolution—and agencies both human and non-human, as well as animate and inanimateare his partners and materials, not just his themes.

In the 1990s, Goldsworthy did a work called Arch. He and writer David Craig traced an ancient drover's sheep route from Scottish pastures to an English market town. Photographing as they went, they assembled and disassembled a self-supporting red sandstone arch across places marking the past and present history of animals, people, and land. The missing trees and cottars, the story of the enclosures and rising wool markets, the fraught ties between England and Scotland over centuries, the conditions of possibility of the Scottish working sheepdog and hired shepherd, the sheep eating and walking to shearing and slaughter—these are memorialized in the moving rock arch tying together geography, history, and natural history.

The collie implicit in Goldsworthy's Arch is less about "Lassie come home" than "cottar get out." That is one condition of possibility of the immensely popular late twentieth-century British TV show about the brilliant working sheepdogs, the Border Collies of Scotland. Shaped genetically by competitive sheep trialing since the late nineteenth century, this breed has made that sport justly famous on several continents. This is the same breed of dog that dominates the sport of agility in my life. It is also the breed that is thrown away in large numbers to be rescued by dedicated volunteers or killed in animal shelters because people watching those famous TV shows about those talented dogs want to buy one on the pet market, which mushrooms to fill the demand. The impulse buyers quickly find themselves with a serious dog whom they cannot satisfy with the work the Border Collie needs. And where is the labor of the hired shepherds and of the food-and-fiber producing sheep in this story? In how many ways do we inherit in the flesh the turbulent history of modern capitalism?

How to live ethically in these mortal, finite flows that are about heterogeneous relationship—and not about "man"—is an implicit question in Goldsworthy's art. His art is relentlessly attuned to specific human inhabitations of the land, but it is neither humanist nor naturalist art. It is the art of naturecultures. The relation is the smallest unit of analysis, and the relation is about significant otherness at every scale. That is the ethic, or perhaps better, mode of attention, with which we must approach the long cohabitings of people and dogs.

So, in The Companion Species Manifesto, I want to tell stories about relating in significant otherness, through which the partners come to be who we are in flesh and sign. The following shaggy dog stories about evolution, love, training, and kinds or breeds help me think about living well together with the host of species with whom human beings emerge on this planet at every scale of time, body, and space. The accounts I offer are idiosyncratic and indicative rather than systematic, tendentious more than judicious, and rooted in contingent foundations rather than clear and distinct premises. Dogs are my story here, but they are only one player in the large world of companion species. Parts don't add up to wholes in this manifesto-or in life in naturecultures. Instead, I am looking for Marilyn Strathern's "partial connections," which are about the counter-intuitive geometries and incongruent translations necessary to getting on together, where the god-tricks of self certainty and deathless communion are not an option.

Evolution Stories

Everyone I know likes stories about the origin of dogs. Overstuffed with significance for their avid consumers, these stories are the stuff of high romance and sober science all mixed up together. Histories of human migrations and exchanges, the nature of technology, the meanings of wildness, and the relations of colonizers and colonized suffuse these stories. Matters like judging whether my dog loves me, sorting out scales of intelligence among animals and between animals and humans, and deciding whether humans are the masters or the duped can hang on the outcome of a sober scientific report. Evaluating the decadence or the progressiveness of breeds, judging whether dog behavior is the stuff of genes or rearing, adjudicating between the claims of old-fashioned anatomists and archaeologists or new-fangled molecular wizards, establishing origins in the New or Old World. figuring the ancestor of pooches as a noble hunting wolf persisting in modern endangered species or a cringing scavenger mirrored in mere village dogs, looking to one or many canine Eves surviving in their mitochondrial DNA or perhaps to a canine Adam through his Y-chromosome legacies—all these and more are understood to be at stake.

The day I wrote this section of *The Companion Species Manifesto*, news broke on the major networks from PBS to CNN about three papers in *Science* magazine on dog evolution and the history of domestication. Within minutes, numerous email lists in dogland were abuzz with discussion about the implica-

tions of the research. Website addresses flew across continents bringing the news to the cyborg world, while the merely literate followed the story in the daily papers of New York, Tokyo, Paris, or Johannesburg. What is going on in this florid consumption of scientific origin stories, and how can these accounts help me understand the relation that is companion species?

Explanations of primate, and especially hominid, evolution might be the most notorious cockfighting arena in contemporary life sciences; but the field of canine evolution is hardly lacking in impressive dog fights among the human scientists and popular writers. No account of the appearance of dogs on earth goes unchallenged, and none goes unappropriated by its partisans. In both popular and professional dog worlds what is at stake is twofold: 1) the relation between what counts as nature and what counts as culture in Western discourse and its cousins, and 2) the correlated issue of who and what counts as an actor. These things matter for political, ethical, and emotional action in technoculture. A partisan in the world of dog evolutionary stories, I look for ways of getting co-evolution and co-constitution without stripping the story of its brutalities as well as multiform beauties.

Dogs are said to be the first domestic animals, displacing pigs for primal honors. Humanist technophiliacs depict domestication as the paradigmatic act of masculine, single-parent, self-birthing, whereby man makes himself repetitively as he invents (creates) his tools. The domestic animal is the epoch-changing tool,

realizing human intention in the flesh, in a dogsbody version of onanism. Man took the (free) wolf and made the (servant) dog and so made civilization possible. Mongrelized Hegel and Freud in the kennel? Let the dog stand for all domestic plant and animal species, subjected to human intent in stories of escalating progress or destruction, according to taste. Deep ecologists love to believe these stories in order to hate them in the name of Wilderness before the Fall into Culture, just as humanists believe them in order to fend off biological encroachments on culture.

These conventional accounts have been thoroughly reworked in recent years, when distributed everything is the name of the game all over, including in the kennel. Even though I know they are faddish, I like these metaplasmic, remodeled versions that give dogs (and other species) the first moves in domestication and then choreograph an unending dance of distributed and heterogeneous agencies. Besides being faddish, I think the newer stories have a better chance of being true, and they certainly have a better chance of teaching us to pay attention to significant otherness as something other than a reflection of one's intentions.

Studies of dog mitochondrial DNA as molecular clocks have indicated emergence of dogs earlier than previously thought possible. Work out of Carles Villá's and Robert Wayne's lab in 1997 argued for divergence of dogs from wolves as long as 150,000 years ago—that is, at the origin of *Homo sapiens sapiens*. That date, unsupported by fossil or archaeological evidence, has given way in subsequent DNA studies to somewhere from 50,000 to 15,000 years ago, with the

scientists favoring the more recent date because it allows synthesis of all the available kinds of evidence. In that case, it looks like dogs emerged first somewhere in east Asia over a fairly brief time in a distributed pocket of events and then spread fast over the whole earth, going wherever humans went.

Many interpreters argue that the most likely scenario has wolf wannabe dogs first taking advantage of the calorie bonanzas provided by humans' waste dumps. By their opportunistic moves, those emergent dogs would be behaviorally and ultimately genetically adapted for reduced tolerance distances, less hairtrigger flight, puppy developmental timing with longer windows for cross-species socialization, and more confident parallel occupation of areas also occupied by dangerous humans. Studies of Russian fur foxes selected over many generations for differential tameness show many of the morphological and behavioral traits associated with domestication. These foxes might model the emergence of a kind of proto-"village dog," genetically close to wolves, as all dogs remain, but behaviorally quite different and receptive to human attempts to further the domestication process. Both by deliberate control of dogs' reproduction (e.g., killing unwanted puppies or feeding some bitches and not others) and by unintended but nonetheless potent consequences, humans could have contributed to shaping the many kinds of dogs that appeared early in the story. Human life ways changed significantly in association with dogs. Flexibility and opportunism are the name of the game for both species, who shape each other throughout the still ongoing story of co-evolution.

Scholars use versions of this story to question sharp divisions of nature and culture in order to shape a more generative discourse for technoculture. Darcy Morey, a canine paleobiologist and archaeologist, believes that the distinction between artificial and natural selection is empty because all the way down the story is about differential reproduction. Morey de-emphasizes intentions and foregrounds behavioral ecology. Ed Russell, an environmental historian, historian of technology, and science studies scholar, argues that the evolution of dog breeds is a chapter in the history of biotechnology. He emphasizes human agencies and regards organisms as engineered technologies, but in a way that has the dogs active, as well as in a way to foreground the ongoing co-evolution of human cultures and dogs. The science writer Stephen Budiansky insists that domestication in general, including the domestication of dogs, is a successful evolutionary strategy benefiting humans and their associated species alike. Examples can be multiplied.

These accounts taken together require reevaluating the meanings of domestication and coevolution. Domestication is an emergent process of co-habiting, involving agencies of many sorts and stories that do not lend themselves to yet one more version of the Fall or to an assured outcome for anybody. Co-habiting does not mean fuzzy and touchy-feely. Companion species are not companionate mates ready for early twentieth-century Greenwich Village anarchist discussions. Relationship is multiform, at stake, unfinished, consequential.

Co-evolution has to be defined more broadly than biologists habitually do. Certainly, the mutual adaptation of visible morphologies like flower sexual structures and the organs of their pollinating insects is co-evolution. But it is a mistake to see the alterations of dogs' bodies and minds as biological and the changes in human bodies and lives, for example in the emergence of herding or agricultural societies, as cultural, and so not about co-evolution. At the least, I suspect that human genomes contain a considerable molecular record of the pathogens of their companion species, including dogs. Immune systems are not a minor part of naturecultures; they determine where organisms, including people, can live and with whom. The history of the flu is unimaginable without the concept of the co-evolution of humans, pigs, fowl, and viruses.

But disease can't be the whole biosocial story. Some commentators think that even something as fundamental as the hypertrophied human biological capacity for speech emerged in consequence of associated dogs' taking on scent and sound alert jobs and so freeing the human face, throat, and brain for chat. I am skeptical of that account; but I am sure that once we reduce our own fight-or-flight reaction to emergent naturecultures, and stop seeing only biological reductionism or cultural uniqueness, both people and animals will look different.

I am heartened by recent ideas in ecological developmental biology, or "eco-devo" in the terms of developmental biologist and historian of science Scott Gilbert. Developmental triggers and timing are the key objects for this young science made possible by new molecular techniques and by discursive resources from many disciplines. Differential, context-specific plasticities are the rule, sometimes genetically assimilated and sometimes not. How organisms integrate environmental and genetic information at all levels, from the very small to the very large, determines what they become. There is no time or place at which genetics ends and environment begins, and genetic determinism is at best a local word for narrow ecological developmental plasticities.

The big, wide world is full of bumptious life. For example, Margaret McFall-Ngai has shown that the light-sensing organs of the squid Euprymna scolopes develop normally only if the embryo has been colonized by luminescent Vibrio bacteria. Similarly, human gut tissue cannot develop normally without colonization by its bacterial flora. The diversity of earth's animal forms emerged in the oceans' salty bacterial soup. All stages of the life histories of evolving animals had to adapt to eager bacteria colonizing them inside and out. Developmental patterns of complex life forms are likely to show the history of these adaptations, once scientists figure out how to look for the evidence. Earth's beings are prehensile, opportunistic, ready to yoke unlikely partners into something new, something symbiogenetic. Co-constitutive companion species and co-evolution are the rule, not the exception. These arguments are tropic for my manifesto, but flesh and figure are not far apart. Tropes are what make us want to look and need to listen for surprises that get us out of inherited boxes.

Love Stories

Commonly in the US, dogs are attributed with the capacity for "unconditional love." According to this belief, people, burdened with misrecognition, contradiction, and complexity in their relations with other humans, find solace in unconditional love from their dogs. In turn, people love their dogs as children. In my opinion, both of these beliefs are not only based on mistakes, if not lies, but also they are in themselves abusive—to dogs and to humans. A cursory glance shows that dogs and humans have always had a vast range of ways of relating. But even among the petkeeping folk of contemporary consumer cultures, or maybe especially among these people, belief in "unconditional love" is pernicious. If the idea that man makes himself by realizing his intentions in his tools, such as domestic animals (dogs) and computers (cyborgs), is evidence of a neurosis that I call humanist technophiliac narcissism, then the superficially opposed idea that dogs restore human beings' souls by their unconditional love might be the neurosis of caninophiliac narcissism. Because I find the love of and between historically situated dogs and humans precious, dissenting from the discourse of unconditional love matters.

J.R. Ackerley's quirky masterpiece, My Dog Tulip (first privately printed in England in 1956), about a relationship between the writer and his "Alsatian" bitch in the 1940s and 1950s, gives me a way to think through my dissent. History flickers in the reader's peripheral vision from the start of this

great love story. After two world wars, in one of those niggling examples of denial and substitution that allow us to go about our lives, a German Shepherd Dog in England was called an Alsatian. Tulip (Queenie, in real life) was the great love of Ackerley's life. An important novelist, famous homosexual, and splendid writer, Ackerley honored that love from the start by recognizing his impossible task—to wit, first, somehow to learn what *this* dog needed and desired and, second, to move heaven and earth to make sure she got it.

In Tulip, rescued from her first home, Ackerley hardly had his ideal love object. He also suspected he was not her idea of the loved one. The saga that followed was not about unconditional love, but about seeking to inhabit an inter-subjective world that is about meeting the other in all the fleshly detail of a mortal relationship. Barbara Smuts, the behavioral bioanthropologist who writes courageously about intersubjectivity and friendship with and among animals, would approve. No behavioral biologist, but attuned to the sexology of his culture, Ackerley comically and movingly sets out to find an adequate sexual partner for Tulip in her periodic heats.

The Dutch environmental feminist Barbara Noske, who also called our attention to the scandal of the meat-producing "animal-industrial complex," suggested thinking about animals as "other worlds" in a science fictional sense. In his unswerving dedication to his dog's significant otherness, Ackerley would have understood. Tulip mattered, and that changed them both. He also mattered to her, in ways that could only be read with the tripping proper to any semiotic prac-

tice, linguistic or not. The misrecognitions were as important as the fleeting moments of getting things right. Ackerley's story was full of the fleshly, meaning-making details of worldly, face-to-face love. Receiving unconditional love from another is a rarely excusable neurotic fantasy; striving to fulfill the messy conditions of being in love is quite another matter. The permanent search for knowledge of the intimate other, and the inevitable comic and tragic mistakes in that quest, commands my respect, whether the other is



Figure 2. Marco Harding and Willem DeKoenig Caudill, a pet Great Pyrenees of Linda Weisser's breeding. Photo by the author.

animal or human, or indeed, inanimate. Ackerley's relationship with Tulip earned the name of love.

I have benefited from the mentoring of several life-long dog people. These people use the word love sparingly because they loathe how dogs get taken for cuddly, furry, child-like dependents. For example, Linda Weisser has been a breeder for more than thirty years of Great Pyrences livestock guardian dogs, a health activist in the breed, and a teacher on all aspects of these dogs' care, behavior, history, and well being. Her sense of responsibility to the dogs and to the people who have them is stunning. Weisser emphasizes love of a kind of dog, of a breed, and talks about what nceds to be done if people care about these dogs as a whole, and not just about one's own dogs. Without wincing, she recommends killing an aggressive rescue dog or any dog who has bitten a child; doing so could mean saving the reputation of the breed and the lives of other dogs, not to mention children. The "whole dog" for her is both a kind and an individual. This love leads her and others with very modest middle-class means to scientific and medical self-education, public action, mentoring, and major commitments of time and resources.

Weisser also talks about the special "dog of her heart"—a bitch who lived with her many years ago and who still stirs her. She writes in acid lyricism about a current dog who arrived at her house at eighteen months of age and snarled for three days, but who now accepts cookies from her nine-year-old granddaughter, allows the child to take away both food and toys, and tolerantly rules the household's younger bitches.

I love this bitch beyond words. She is smart and proud and alpha, and if a snarl here and there is the price I pay for her in my life, so be it (Great Pyrenees Discussion List, 9/29/02).

Weisser plainly treasures these feelings and these relationships. She is quick to insist that at root her love is about

the deep pleasure, even joy, of sharing life with a different being, one whose thoughts, feelings, reactions, and probably survival needs are different from ours. And somehow in order for all the species in this 'band' to thrive, we have to learn to understand and respect those things (Great Pyrenees Discussion List, 11/14/01).

To regard a dog as a furry child, even metaphorically, demeans dogs and children—and sets up children to be bitten and dogs to be killed. In 2001 Weisser had eleven dogs and five cats in residence. All of her adult life, she has owned, bred, and showed dogs; and she raised three human children and carried on a full civic, political life as a subtle left feminist. Sharing human language with her children, friends, and comrades is irreplaceable.

While my dogs can love me (I think), I have never had an interesting political conversation with any of them. On the other hand, while my children can talk, they lack the true 'animal' sense that that allows me to touch, however briefly, the 'being' of another species so different from my own with all

the awe-inspiring reality that brings me (Great Pyrenees Discussion List, 11/14/01).

Loving dogs the way Weisser means is not incompatible with a pet relationship; indeed, pet relationships can and do frequently nurture this sort of love. Being a pet seems to me to be a demanding job for a dog, requiring self-control and canine emotional and cognitive skills matching those of good working dogs. Very many pets and pet people deserve respect. Further, play between humans and pets, as well as simply spending time peaceably hanging out together, brings joy to all the participants. Surely that is one important meaning of companion species.

Nonetheless, the status of pet puts a dog at special risk in societies like the one I live in—the risk of abandon-

in societies like the one I live in—the risk of abandon—ment when human affection wanes, when people's convenience takes precedence, or when the dog fails to deliver on the fantasy of unconditional love.

Many of the serious dog people I have met doing my research emphasize the importance to dogs of jobs that leave them less vulnerable to human consumerist whims. Weisser knows many livestock people whose guardian dogs are respected for the work they do. Some are loved and some are not, but their value does not depend on an economy of affection. In particular, the dogs' value—and life— does not depend on the humans' perception that the dogs love them. Rather, the dog has to do his or her job, and, as Weisser says, the rest is gravy.

Donald McCaig, the astute Border Collie writer and sheepdog trialer, concurs. His novels, Nop's

Hope and Nop's Trial, are a superb introduction to potent relationships between working sheepdogs and their people. McCaig notes that working sheepdogs, as a category, fall "somewhere between 'livestock' and 'co-worker'" (Canine Genetics Discussion List, 11/30/00). A consequence of that status is that the dog's judgment may sometimes be better than the human's on the job. Respect and trust, not love, are the critical demands of a good working relationship between these dogs and humans. The dog's life depends more on skill—and on a rural economy that does not collapse—and less on a problematic fantasy.

In his zeal to foreground the need to breed, train, and work to sustain the precious herding abilities of the breed he best knows and most cares about. I think McCaig sometimes devalues and mis-describes both pet and sport performance relationships in dogland. I also suspect that his dealings with his dogs might properly be called love if that word were not so corrupted by our culture's infantilization of dogs and the refusal to honor difference. Dog naturecultures need his insistence on the functional dog preserved only by deliberate work-related practices, including breeding and economically viable jobs. We need Weisser's and McCaig's knowledge of the job of a kind of dog, the whole dog, the specificity of dogs. Otherwise, love kills, unconditionally, both kinds and individuals.

Training Stories

From "Notes of a Sports Writer's Daughter":

Marco, my godson, is Cayenne's god kid; she is his god dog. We are a fictive kin group in training. Perhaps our family coat of arms would take its motto from the Berkeley canine literary, politics, and arts magazine that is modeled after the Barb; namely, the Bark, whose masthead reads "dog is my co-pilot." When Cayenne was twelve weeks old and Marco six years old, my husband Rusten and I gave him puppy-training lessons for Christmas. With Cayenne in her crate in the car, I would pick Marco up from school on Tuesdays, drive to Burger King for a planet-sustaining health food dinner of burgers, coke, and fries, and then head to the Santa Cruz SPCA for our lesson. Like many of her breed, Cayenne was a smart and willing youngster, a natural to obedience games. Like many of his generation raised on high-speed visual special effects and automated cyborg toys, Marco was a bright and motivated trainer, a natural to control games.

Cayenne learned cues fast, and so she quickly plopped her bum on the ground in response to a "sit" command. Besides, she practiced at home with me. Entranced, Marco at first treated her like a microchipimplanted truck for which he held the remote controls. He punched an imaginary button; his puppy magically fulfilled the intentions of his omnipotent, remote will. God was threatening to become our co-pilot. I, an obsessive adult who came of age in the communes of the late 1960s, was committed to ideals of inter-subjectivity and mutuality in all things, certainly including dog and boy training. The illusion of mutual attention and communication would be better than nothing, but I really

wanted more than that. Besides, here I was the only adult of either species present. Inter-subjectivity does not mean "equality," a literally deadly game in dogland; but it does mean paying attention to the conjoined dance of face-to-face significant otherness. In addition, control freak that I am, I got to call the shots, at least on Tuesday nights.

Marco was at the same time taking karate lessons, and he was profoundly in love with his karate master. This fine man understood the children's love of drama, ritual, and costume, as well as the mental-spiritual-bodily discipline of his marital art. "Respect" was the word and the act that Marco ecstatically told me about from his lessons. He swooned at the chance to collect his small, robed self into the prescribed posture and bow formally to his master or his partner before performing a form. Calming his turbulent first-grade self and meeting the eyes of his teacher or his partner in preparation for demanding, stylized action thrilled him. Hey, was I going to let an opportunity like that go unused in my pursuit of companion species flourishing?

"Marco," I said, "Cayenne is not a cyborg truck; she is your partner in a martial art called obedience. You are the older partner and the master here. You have learned how to perform respect with your body and your eyes. Your job is to teach the form to Cayenne. Until you can find a way to teach her how to collect her galloping puppy self calmly and to hold still and look you in the eyes, you cannot let her perform the 'sit' command." It would not be enough for her just to sit on cue and for him to "click and treat." That would be necessary, certainly, but the order was wrong. First, these two youngsters had to learn to notice each other. They had to be in the same game. It is my belief that Marco began to emerge as a dog trainer over the next six weeks. It is also my belief that as he learned to show her the corpo-

real posture of cross-species respect, she and he became significant others to each other.

Two years later out of the kitchen window I glimpsed Marco in the back yard doing twelve weave poles with Cayenne when nobody else was present. The weave poles are one of the most difficult agility objects to teach and to perform. I think Cayenne's and Marco's fast, beautiful weave poles were worthy of his karate master.

Positive Bondage

In 2002 the consummate agility competitor and teacher Susan Garrett authored a widely acclaimed training pamphlet called Ruff Love, published by the dog agility-oriented company, Clean Run Productions. Informed by behaviorist learning theory and the resultant popular positive training methods that have mushroomed in dogland in the last twenty years, the booklet instructs any dog person who wants a closer, more responsive training relationship with her or his dog. Problems like a dog's not coming when called or inappropriate aggression are surely in view; but, more, Garrett works to inculcate attitudes informed by biobehavioral research and to put effective tools in the hands of her agility students. She aims to show how to craft a relationship of energetic attention that would be rewarding to the dogs and the humans. Non-optional, spontaneous, oriented enthusiasm is to be the accomplishment of the previously most lax, distracted dog. I have the strong sense that Marco has been the subject of a similar pedagogy at his progressive elementary school. The rules are simple in principle and cunningly demanding in practice; to wit, mark the desired behavior with an instantaneous signal and then get a reward delivered within the time window appropriate to the species in question. The mantra of popular positive training, "click and treat," is only the tip of a vast post-"discipline and punish" iceberg.

Emphatically, as the back of Garrett's tract proclaims in a cartoon, positive does not mean permis-

sive. Indeed, I have never read a dog-training manual more committed to near total control in the interests of fulfilling human intentions, in this case, peak performance in a demanding, dual species, competitive sport. That kind of performance can only come from a team that is highly motivated, not working under compulsion, but knowing the energy of each other and trusting the honesty and coherence of directional postures and responsive movements.

Garrett's method is exacting, philosophically and practically. The human partner must set things up so that the dog sees the clumsy biped as the source of all good things. Opportunities for the dog to get rewards in any other way must be eliminated as far as possible for the duration of the training program, typically a few months. The romantic might quail in the face of requirements to keep one's dog in a crate or tied to oneself by a loose leash. Forbidden to the pooch are the pleasures of romping at will with other dogs, rushing after a teasing squirrel, or clambering onto the couch—unless and until such pleasures are granted for exhibiting self control and responsiveness to the human's commands at a near 100% frequency. The human must keep detailed records of the actual correct response rate of the dog for each task, rather than tell tales about the heights of genius one's own dog must surely have reached. A dishonest human is in deep trouble in the world of ruff love.

The compensations for the dog are legion. Where else can a canine count on several focused training sessions a day, each designed so that the dog does not make mistakes, but instead gets rewarded by

the rapid delivery of treats, toys, and liberties, all carefully calibrated to evoke and sustain maximum motivation from the particular, individually known pupil? Where else in dogland do training practices lead to a dog who has learned to learn and who eagerly offers novel "behaviors" that might become incorporated into sports or living routines, instead of morosely complying (or not) with poorly understood compulsions? Garrett directs the human to make careful lists of what the dog actually likes; and she instructs people how to play with their companions in a way the dogs enjoy, instead of shutting dogs down by mechanical human ball tosses or intimidating over-exuberance. Besides all that, the human must actually enjoy playing in doggishly appropriate ways, or they will be found out. Each game in Garrett's book might be geared to build success according to human goals, but unless the game engages the dog, it is worthless.

In short, the major demand on the human is precisely what most of us don't even know we don't know how to do—to wit, how to see who the dogs are and hear what they are telling us, not in bloodless abstraction, but in one-on-one relationship, in otherness-in-connection.

There is no room for romanticism about the wild heart of the natural dog or illusions of social equality across the class Mammalia in Garrett's practice and pedagogy, but there is large space for disciplined attention and honest achievement. Psychological and physical violence has no part in this training drama; technologies of behavioral management have a staring role. I have made enough well

intentioned training mistakes—some of them painful to my dogs and some of them dangerous to people and other dogs, not to mention worthless for succeeding in agility—to pay attention to Garrett. Scientifically informed, empirically grounded practice matters; and learning theory is not empty cant, even if it is still a severely limited discourse and a rough instrument. Nonetheless, I am enough of a cultural critic to be unable to still the roaring ideologies of tough love in high-pressure, success-oriented, individualist America. Twentieth-century Taylorite principles of scientific management and the personnel management sciences of corporate America have found a safe crate around the postmodern agility field. I am enough of an historian of science to be unable to ignore the easily inflated, historically decontextualized, and overly generalized claims of method and expertise in positive training discourse.

Still, I lend my well-thumbed copy of Ruff Love to friends, and I keep my clicker and liver treats in my pocket. More to the point, Garrett makes me own up to the stunning capacity that dog people like me have to lie to ourselves about the conflicting fantasies we project onto our dogs in our inconsistent training and dishonest evaluations of what is actually happening. Her pedagogy of positive bondage makes a serious, historically specific kind of freedom for dogs possible; i.e., the freedom to live safely in multispecies, urban and sub-urban environments with very little physical restraint and no corporal punishment while getting to play a demanding sport with every evidence of self-actualizing motivation. In dogland, I

am learning what my college teachers meant in their seminars on freedom and authority. I think my dogs rather like ruff tough love. Marco remains more skeptical.

Harsh Beauty

Vicki Hearne—the famous companion animal trainer, lover of maligned dogs like American Staffordshire Terriers and Airedales, and language philosopher—is at first glance the opposite of Susan Garrett. Hearne, who died in 2001, remains a sharp thorn in the paw for the adherents of positive training methods. To the horror of many professional trainers and ordinary dog folk, including myself, who have undergone a near-religious conversion from the military-style Koehler dog-training methods, not so fondly remembered for corrections like leash jerks and ear pinches, to the joys of rapidly delivering liver cookies under the approving eye of behaviorist learning theorists, Hearne did not turn from the old path and embrace the new. Her disdain for clicker training could be scaring, exceeded only by her fierce opposition to animal rights discourse. I cringe under her ear pinching of my newfound training practices and rejoice in her alpha roll of animal rights ideologies. The coherence and power of Hearne's critique of both the clicker addicted and the rights besotted, however, command my respect and alert me to a kinship link. Hearne and Garrett are blood sisters under the skin.

The key to this close line breeding is their focused attention to what the dogs are telling them, and so demanding of them. Amazing grace, these thinkers attend to the dogs, in all these canines' situated complexity and particularity, as the unconditional demand of their relational practice. There is no doubt

that behaviorist trainers and Hearne have important differences over methods, some of which could be resolved by empirical research and some of which are embedded in personal talent and cross-species charisma or in the incommensurable tacit knowledges of diverse communities of practice. Some of the differences also probably reside in human pigheadedness and canine opportunism. But "method" is not what matters most among companion species; "communication" across irreducible difference is what matters. Situated partial connection is what matters; the resultant dogs and humans emerge together in that game of cat's cradle. Respect is the name of the game. Good trainers practice the discipline of companion species relating under the sign of significant otherness.

Hearne's best-known book about communication between companion animals and human beings, Adam's Task (Random House, 1982), is ill titled. The book is about two-way conversation, not about naming. Adam had it easy in his categorical labor. He didn't have to worry about back-talk; and God, not a dog, made him who he was, in His own image, no less. To make matters harder, Hearne has to worry about conversation when human language isn't the medium, but not for reasons most linguists or language philosophers would give. Hearne likes trainers' using ordinary language in their work; that use turns out to be important to understanding what the dogs might be telling her, but not because the dogs are speaking furry humanese. She adamantly defends lots of so-called anthropomorphism, and no one more eloquently makes the case for the intention-laden, consciousnessascribing linguistic practices of circus trainers, equestrians, and dog obedience enthusiasts. All that philosophically suspect language is necessary to keep the humans alert to the fact that somebody is at home in the animals they work with.

Just who is at home must permanently be in question. The recognition that one cannot know the other or the self, but must ask in respect for all of time who and what are emerging in relationship, is the key. That is so for all true lovers, of whatever species. Theologians describe the power of the "negative way of knowing" God. Because Who/What Is is infinite, a finite being, without idolatry, can only specify what is not; i.e., not the projection of one's own self. Another name for that kind of "negative" knowing is love. I believe those theological considerations are powerful for knowing dogs, especially for entering into a relationship, like training, worthy of the name of love.

I believe that all ethical relating, within or between species, is knit from the silk-strong thread of ongoing alertness to otherness-in-relation. We are not one, and being depends on getting on together. The obligation is to ask who are present and who are emergent. We know from recent research that dogs, even kennel-raised puppies, do much better than generally more brilliant wolves or human-like chimpanzees in responding to human visual, indexical (pointing), and tapping cues in a food-finding test. Dogs' survival in species and individual time regularly depends on their reading humans well. Would that we were as sure that most humans respond at better than chance levels to what dogs tell them. In fruitful contradiction, Hearne

thinks that the intention-ascribing idioms of experienced dog handlers can prevent the kind of literalist anthropomorphism that sees furry humans in animal bodies and measures their worth in scales of similarity to the rights-bearing, humanist subjects of Western philosophy and political theory.

Her resistance to literalist anthropomorphism and her commitment to significant otherness-inconnection fuel Hearne's arguments against animal rights discourse. Put another way, she is in love with the cross-species achievement made possible by the hierarchical discipline of companion animal training. Hearne finds excellence in action to be beautiful, hard, specific, and personal. She is against the abstract scales of comparison of mental functions or consciousness that rank organisms in a modernist great chain of being and assign privileges or guardianship accordingly. She is after specificity.

The outrageous equating of the killing of the Jews in Nazi Germany, the Holocaust, with the butcheries of the animal-industrial complex, made famous by the character Elizabeth Costello in J.M. Coetzee's novel *The Lives of Animals*, or the equating of the practices of human slavery with the domestication of animals make no sense in Hearne's framework. Atrocities, as well as precious achievements, deserve their own potent languages and ethical responses, including the assignment of priority in practice. Situated emergence of more livable worlds depends on that differential sensibility. Hearne is in love with the beauty of the ontological choreography when dogs and humans converse with skill, face-to-face. She is

convinced that this is the choreography of "animal happiness," a title of another of her books.

In her famous blast in Harper's magazine in September 1991 titled "Horses, Hounds and Jeffersonian Happiness: What's Wrong with Animal Rights?" (available online with a new prologue at www.dogtrainingarts.com), Hearne asked what companion "animal happiness" might be. Her answer: the capacity for satisfaction that comes from striving, from work, from fulfillment of possibility. That sort of happiness comes from bringing out what is within; i.e., from what Hearne says animal trainers call "talent." Much companion animal talent can only come to fruition in the relational work of training. Following Aristotle, Hearne argues that this happiness is fundamentally about an ethics committed to "getting it right," to the satisfaction of achievement. A dog and handler discover happiness together in the labor of training. That is an example of emergent naturecultures.

This kind of happiness is about yearning for excellence and having the chance to try to reach it in terms recognizable to concrete beings, not to categorical abstractions. Not all animals are alike; their specificity—of kind and of individual—matter. The specificity of their happiness matters, and that is something that has to be brought to emergence. Hearne's translation of Aristotelian and Jeffersonian happiness is about human-animal flourishing as conjoined mortal beings. If conventional humanism is dead in post-cyborg and post-colonial worlds, Jeffersonian caninism might still deserve a hearing.

Bringing Thomas Jefferson into the kennel. Hearne believes that the origin of rights is in committed relationship, not in separate and preexisting category identities. Therefore, in training, dogs obtain "rights" in specific humans. In relationship, dogs and humans construct "rights" in each other, such as the right to demand respect, attention, and response. Hearne described the sport of dog obedience as a place to increase the dog's power to claim rights against the human. Learning to obey one's dog honestly is the daunting task of the owner. Her language remaining relentlessly political and philosophical, Hearne asserts that in educating her dogs she "enfranchises" a relationship. The question turns out not to be what are animal rights, as if they existed preformed to be uncovered, but how may a human enter into a rights relationship with an animal? Such rights, rooted in reciprocal possession, turn out to be hard to dissolve; and the demands they make are life changing for all the partners.

Hearne's arguments about companion animal happiness, reciprocal possession, and the right to the pursuit of happiness are a far cry from the ascription of "slavery" to the state of all domestic animals, including "pets." Rather, for her the face-to-face relationships of companion species make something new and elegant possible; and that new thing is not human guardianship in place of ownership, even as it is also not property relations as conventionally understood. Hearne sees not only the humans, but also the dogs, as beings with a species-specific capacity for moral understanding and serious achievement. Possession—

property—is about reciprocity and rights of access. If I have a dog, my dog has a human; what that means concretely is at stake. Hearne remodels Jefferson's ideas of property and happiness even as she brings them into the worlds of tracking, hunting, obedience, and household manners.

Hearne's ideal of animal happiness and rights is also a far cry from the relief of suffering as the core human obligation to animals. Human obligation to companion animals is much more exacting than that, even as daunting as ongoing cruelty and indifference are in this domain too. The ethic of flourishing described by the environmental feminist Chris Cuomo is close to Hearne's approach. Something important comes into the world in the relational practice of training; all the participants are remodeled by it. Hearne loved language about language; she would have recognized metaplasm all the way down.

Apprenticed to Agility

From "Notes of a Sport's Writer's Daughter," October, 1999:

Dear Vicki Hearne,

Watching my Aussi-mix dog Roland with you lurking inside my head last week made me remember that such things are multidimensional and situational, and describing a dog's temperament takes more precision than I achieved. We go to an off-leash, cliff-enclosed beach almost every day. There are two main classes of dogs there: retrievers and metaretrievers. Roland is a metaretriever. Roland will play ball with Rusten and me once in a while (or anytime we couple the sport with a liver cookie or two), but his heart's not in it. The activity is not really self-rewarding to him, and his lack of style shows it. But metaretrieving is another matter entirely. The retrievers watch whoever is about to throw a hall or stick as if their lives depended on the next few seconds. The metaretrievers watch the retrievers with an exquisite sensitivity to directional cues and microsecond of spring. These meta dogs do not watch the ball or the human; they watch the ruminant-surrogates-in-dog'sclothing. Roland in meta-mode looks like an Aussie-Border Collie mock up for a lesson in Platonism. His forequarters are lowered, forelegs slightly apart with one in front of the other in hair-trigger balance, his hackles in mid-rise, his eyes focused, his whole body ready to spring into hard, directed action. When the retrievers sail out after the projectile, the metaretrievers move out of their intense eye and stalk into heading, heeling, bunching, and cutting their charges with joy and skill. The good metaretrievers can even handle more than one retriever at a time. The good retrievers can dodge the

metas and still make their catch in eye-amazing leaps or surges into the waves, if things have gone to sea.

Since we have no ducks or other surrogate sheep or cattle on the beach, the retrievers have to do duty for the metas. Some retriever people take exception to this multitasking of their dogs (I can hardly blame them), so those of us with metas try to distract our dogs once in a while with some game they inevitably find much less satisfying. I drew a mental Larson cartoon on Thursday watching Roland, an ancient and arthritic Old English Sheepdog, a lovely red tricolor Aussie, and a Border Collie mix of some kind form an intense ring around a shepherd-lab mix, a plethora of motley Goldens, and a game pointer who hovered around a human who—liberal individualist in Amerika to the end—was trying to throw his stick to his dog only.

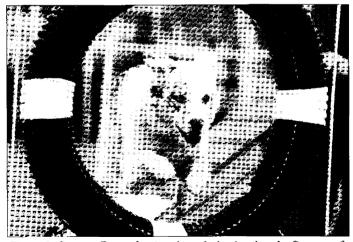


Figure 3. Cayenne Pepper leaping through the tire obstacle. Courtesy of Tien Tran Photography.

Correspondence with Gail Frazier, agility teacher, May 6, 2001:

Hi Gail.

Your pupils, Roland Dog and I, got 2 Qualifying scores in Standard Novice this weekend at the USDAA trial!

Our early morning Gamblers game on Saturday was a bad bet. And we were a disgrace to Agilitude in our Jumpers run, which finally happened at 6:30 p.m. Saturday evening. In our defense, after getting up at 4 a.m. on three hours sleep to get to Hayward for the trial, we were lucky to be standing by then, much less running and jumping. Both Roland and I ran totally separate jumpers courses, neither being the one the judge had prescribed. But our Standard runs Saturday and Sunday were both real pretty, and one earned us a 1st place ribbon. Roland's feet and my shoulders seemed born to dance together.

Cayenne and I head for Haute Dawgs in Dixon next Saturday for her first fun match. Wish us luck. There are so many ways to crash and burn on a course, but so far all of them have been fun, or at least instructive. Dissecting our respective runs Sunday afternoon in Hayward, one man and I were laughing at the cosmic arrogance of US culture (in this case, ourselves), in which we generally believe both that mistakes have causes and that we can know them. The gods are laughing.

The Game Story

Partly inspired by horse jumping events, the sport of dog agility first appeared at the Crufts dog show in London in February 1978 as entertainment during the break after the obedience championship and before the group judging. Also in agility's pedigree was police dog training, which began in London in 1946 and used obstacles like the high inclined A-frame that the Army had already adopted for its canine corps. Dog Working Trials, a demanding British competition that included three-foot-high bar jumps, six-foot-high panel jumps, and nine-foot broad jumps, added a third strand in agility's parentage. For early agility games, teeter-totters were scavenged from children's playgrounds; and coal mine ventilation shafts were put into service as tunnels. Men—many "guys who worked down the coal mines and wanted a bit of fun with their dogs," in the words of UK dog trainer and agility historian John Rogerson-were the original enthusiasts for these activities. Crufts and television, sponsored by Pedigree Pet Foods, assured that human gender and class would be as variable in the sport as the lineage of its equipment.

Immensely popular in Britain, agility spread around the world even faster than dogs had disbursed globally after their domestication. The United States Dog Agility Association (USDAA) was founded in 1986. By 2000, agility attracted thousands of addicted participants in hundreds of meets around the country. Typically a weekend event draws 300 or more dogs and handlers, and many teams trial more than once a

month and train at least weekly. Agility flourishes in Europe, Canada, Latin America, Australia, and Japan. Brazil won the Fédération Cynologique Internationale's World Cup in 2002. The USDAA's Grand Prix event is televised, and its videotapes are devoured by agility enthusiasts for the new moves by the great dog-handler teams and new course layouts devised by devious judges. Week-long training camps attended by hundreds of students working with famous handler-instructors are held in several states.

Evidenced in the sport's glossy monthly magazine, Clean Run, agility is becoming ever more technically demanding. A course is made up of twenty or so obstacles like jumps, six-foot high A-frames, twelve weave poles in series, teeter-totters, and tunnels arranged in patterns by judges. Different games called things like Snooker, Gamblers, Pairs, Jumpers with Weaves, Tunnelers, and Standard-involve different obstacle configurations and rules and require diverse strategies. Players see the courses for the first time the day of the event and get to walk through them for ten minutes or so to plan their runs. Dogs have not seen the course until they are actually running it. Humans give signals with voice and body; dogs navigate the obstacles at speed in the designated order. Scores depend on time and accuracy. A run typically takes a minute or less, and events are decided by fractions of seconds. Agility relies on fast-twitch muscles, skeletal and neural! Depending on the sponsoring organization, a dog-human team runs from two to eight events in a day. Recognition of obstacle patterns, knowledge of moves, skill on hard obstacles,

and perfection of coordination and communication between dog and handler are the keys to good runs.

Agility can be expensive; travel, camping, entry fees, and training easily run to \$2500 a year. To be good, teams need to practice several times a week and to be physically fit. The time commitment is not trivial for dogs or people. In the US, middle-aged, middle-class, white women dominate the sport numerically; the best players internationally are more various in gender, color, and age, but probably not class. All sorts of dogs play and win, but particular breeds—Border Collies, Shetland Sheepdogs, Jack Russell Terriers—excel in their jump height classes. The sport is strictly amateur, staffed and played by volunteers

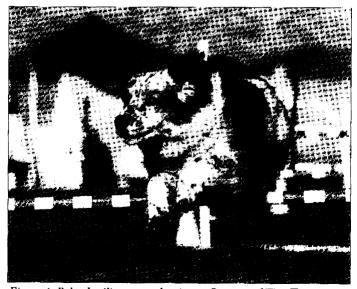


Figure 4. Roland sailing over a har jump. Courtesy of Tien Tran Photography.

and participants. Ann Leffler and Dair Gillespie, sociologists in Utah who study (and play) the sport, talk about agility in terms of "passionate avocations" that problematize the interface between public/private and work/leisure. I work to convince my sports writer father that agility should nudge football aside and take its rightful place on television with world-class tennis. Beyond the simple, personal fact of joy in time and work with my dogs, why do I care? Indeed, in a world full of so many urgent ecological and political crises, how can I care?

Love, commitment, and yearning for skill with another are not zero sum games. Acts of love like training in Vicki Hearne's sense breed acts of love like caring about and for other concatenated, emergent worlds. That is the core of my companion species manifesto. I experience agility as a particular good in itself and also as a way to become more worldly; i.e., more alert to the demands of significant otherness at all the scales that making more livable worlds demands. The devil here, as elsewhere, is in the details. Linkages are in the details. Someday I will write a big book called, if not Birth of the Kennel in honor of Foucault, then Notes of a Sports Writer's Daughter in honor of another of my progenitors, to argue for the myriad strands connecting dogs to the many worlds we need to make flourish. Here, I can only suggest. To do that, I will work tropically by appealing to three phrases that Gail Frazier, my agility teacher, regularly uses with her students: "you left your dog"; "your dog doesn't trust you"; and "trust your dog."

These three phrases return us to Marco's story, Garrett's positive bondage, and Hearne's harsh beauty. A good agility teacher, like mine, can show her students exactly where they left their dogs and exactly what gestures, actions, and attitudes block trust. It's all quite literal. At first, the moves seem small, insignificant; the timing too demanding, too hard; the consistency too strict, the teacher too demanding. Then, dog and human figure out, if only for a minute, how to get on together, how to move with sheer joy and skill over a hard course, how to communicate, how to be honest. The goal is the oxymoron of disciplined spontaneity. Both dog and handler have to be able to take the initiative and to respond obediently to the other. The task is to become coherent enough in an incoherent world to engage in a joint dance of being that breeds respect and response in the flesh, in the run, on the course. And then to remember how to live like that at every scale, with all the partners.

Breed Stories

So far this manifesto has foregrounded two sorts of time-space scales co-constituted by human, animal, and inanimate agencies: 1) evolutionary time at the level of the planet earth and its naturalcultural species, and 2) face-to-face time at the scale of mortal bodies and individual lifetimes. Evolutionary stories attempted to calm my political people's fears of biological reductionism and, with my colleague in science studies, Bruno Latour, interest them in the much more lively ventures of naturecultures. Love and training stories tried to honor the world in its irreducible, personal detail. At every repetition, my manifesto works fractally, re-inscribing similar shapes of attention, listening, and respect.

It is time to sound tones on another scale, namely, historical time on the scale of decades, centuries, populations, regions, and nations. Here, I borrow from Katie King's work on feminism and writing technologies, where she asks how to recognize emergent forms of consciousness, including methods of analysis, implicated in globalization processes. She writes about distributed agencies, "layers of locals and globals," and political futures yet to be actualized. Dog people need to learn how to inherit difficult histories in order to shape more vital multi-species futures. Attention to layered and distributed complexity helps me to avoid both pessimistic determinism and romantic idealism. Dogland turns out to be built from layers of locals and globals.

I need feminist anthropologist Anna Tsing to think about scale-making in dogland. She interrogated what gets to count as the "global" in transnational financial wheeling and dealing in contemporary Indonesia. She saw not pre-existing entities already in the shapes and scales of frontiers, centers, locals, or globals, but instead "scale-making" of world-making kinds, in which re-opening what seemed closed remains possible.

Finally, I translate—literally, move over to dogland-Neferti Tadiar's understanding of experience as living historical labor, through which subjects can be structurally situated in systems of power without reducing them to raw material for the Big Actors like Capitalism and Imperialism. She might forgive me for including dogs among those subjects, and she would give me the human-dog dyad at least provisionally. Let us see if telling histories of two divergent kinds of dogs-livestock guardian dogs (LGDs) and herdersand of institutionalized breeds emergent from those kinds—Great Pyrences and Australian Shepherds—as well as of dogs of no fixed breed or kind, can help shape a potent worldly consciousness in solidarity with my feminist, anti-racist, queer, and socialist comrades; that is, with the imagined community that can only be known through the negative way of naming, like all the ultimate hopes.

In that negative way, I tell declarative stories trippingly. There are myriad origin and behavior stories about breeds and kinds of dogs, but not all narratives are born equal. My mentors in dogland taught me their breed histories, which I think honor

both lay and scientific documentary, oral, experimental, and experiential evidence. The following stories are composites that, interpellating me into their structures, show something important about companion species living in naturecultures.