

My Distributed TRANimalities @ sltranimal.blogspot.com

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Abstract This essay is an exploration of “trans” among various transcodings of technicities, bodies, animalities, feminisms, media, and academies. The author positions the training of an artificial intelligence agent “dog” in the online virtual world Second Life as many practices of distributed being, cognition, and sensation in attunements across “trans” becomings.

Keywords trans, virtual worlds, attunement, embodiment

Note on form: This essay is experimental both in terms of theorizing the speciated nature of digital life—that is, of understanding how digitality emerges as yet another animating force—but also in the “transducing” format of the essay itself (Helmreich 2007). If transducing marks the shifting registers of meaning, sensation, and medium as a signal or a document moves from or across media, then this essay transduces first from Second Life playing to online archiving and presenting, and second, now, to printing and publishing. Consider that this essay was originally written as a presentation at the Society for Literature, Science, and the Arts (SLSA) Annual Conference: Decodings at the panel “TRANimals: Theorizing the Trans- in Zoonotology,” Atlanta, November 7, 2009, only to be further transduced or, in my vernacular, “distributed,” as a presentation at the Zoototechnic (Animality/Technicity) Conference and Cultural Theory at Cardiff University, Wales, May 14, 2010. To foreground the distributed and transduced trans-form this essay takes, I recommend that you read it alongside the blogspot link in the title (sltranimal.blogspot.com). Of course, some of the material will be reiterative—transduction does promise such—but you will also find different kinds of knowledges emerging through media specificities (the particularities of mediated signals). Maybe adding yet another species to mix, we might think of this transducing and distributing form as hydroid-like, or fungal, or even the many-headed Medusa.

TRANformS

Complexity: a something greater than the sum of its parts. *Complex behavior*: “a system with multiple agents dynamically interacting in multiple ways, following local rules.” *Agencies*: The kinds of agents here might be those actants described within Latour and others’ Actor-Network theory: not only persons, individual and in collectives, but also things, communications, forms of social organization, and worldly processes. *Complex behavior with self-organization*: “it wouldn’t truly be considered emergent until those local interactions resulted in some kind of discernible macrobehavior . . . a higher-level pattern arising out of parallel complex interactions between local agents.” *Adaptive self-organization*: creating more higher-level behaviors over time and adding learning through feedback loops. (adapted from Johnson 2001: 19)

A few years ago, in one of those welcome serendipities that change your intellectual life, I encountered simultaneously, and thus got all entangled in my brain, fellow HistConer Eva Hayward’s (2008) process ontologies of “transing,” as many reembodyed sensory arts in transgender practices, and American studies scholar Bailey Kier’s (2004) indexing of the networked methodologies of “trans knowledges” in flexible, global cognitions.¹ As a result, I have never been able to disentangle these threads again. Rather than a blending of knowledge, these discrete threads of knowing, of mattering, are woven such that concatenated knowledge emerges as transdisciplinary engagement. Transdisciplinarity is in one mode a self-adaptive complexity. It foregrounds the transduction of knowledge as it passes *across* and *between* the interpretive and methodological planes of composing knowledge. Trans is a materialization of process; transdisciplinarity is a materializing of labors in and beyond the academic, is always a tangle of relationalities, and keeps working to offer the possibility of care.

For me the term *trans* also now always carries with it the transgenic material shared from Kier and Hayward’s viral vectoring, both these distributed agents of trans being and knowing. Then, when I first heard the concept “TRANimalS,” in *my* brain those particularized transing meanings suddenly added themselves to the bodies in transit described in the feminist transdisciplinary posthumanities work of Donna Haraway’s animal studies (2008). Lindsay Kelley and Eva Hayward (2009), the co-organizers of the “TRANimalS: Theorizing the Trans- in Zoonotology” panel at the Society for Literature, Science, and the Arts (SLSA) Annual Conference: Decodings in 2009, described the panel in their worksheet for attendees:

This panel emerged from thinking about how the nascent field of Animal Studies often encodes and decodes human/animal relationships with the prefix “trans-” to produce neologisms and portmanteaus: trans-species, transgenic, trans-biology, trans-humanism, and trans-marine. As the *OED* teaches us, “trans-” implies movement across, through, over, to or on the other side of, beyond, outside of, from one place, person, thing, or state to another. This movement compels nuanced or even explosive changes in our understandings of species and speciation, disrupting the notion that species (human or otherwise) are individuated rather than relational. Trans- disturbs purification practices; psychical and corporeal experiences and events are concatenated (as opposed to simply blended) at multiple literal and figural levels, resulting in chimeric entities and liminal states of existence. Trans-animals, or “TRANimalS,” involve us in relationships that bind humans to their non-human companions, jellyfish to rabbits, virtuality to corporeality, and food to flesh.

From companion species in virtual worlds to humans acting as, emulating, and becoming with animals, from human voices speaking the languages of crows and horses to the invisible effects of animated toxins, Kelley and Hayward understood TRANimalS as challenging and dislocating the boundaries between humans and nonhumans as well as processes of living, dying, evolving, and transforming. TRANimalS signaled how animals, human and nonhuman, are constitutive of each other through the spaces and places we cohabit. This includes language, visual representations, bio- and zoosemiotics, and other meaning-making registers as well as bodily contact zones—placing the emphasis on process rather than product. In an effort to articulate the significance of trans- in animal studies, they asked the following questions: How do we embody animals, and how do other animals embody us? How are carnal modes of incorporation, intimacy, and inhabitation kinds of encounters forged between TRANimalS? What is the consequence of taking trans- tropes as the starting point of inquiry into questions of relationality? How do we think and write about human and animal power relations in a way that acknowledges the discursive traffic, agency, and life conditions of these differently bounded sociohistorical, political populations? How do TRANimalS figure in politicoeconomic stories, processes, and institutions?

I was enthralled with their project and began to ask, Are there additional companionable ways to re-embody? Another sensory medium I could offer to their explorations? Another way to add my own bit to these meanings gone viral? In other words, it was not *DE-codings* I was after but rather a sharing in *TRANS-codings* of knowledges, bodies, animalities, feminisms, media, and academics.

It is interesting to think how *TRANimals*, which was written as a synecdochic correspondence between “trans” and “animal,” might be altered to attend

Table 1. Second Life Glossary

SL: Second Life. Created 2003 by Linden Lab in San Francisco and begun as an online virtual gaming world, Second Life quickly became instead a complex 3-D multienvironment in various forms of social media, with “resident” avatars participating as individuals, educators, educational institutions, corporate work groups, military recruiters, artists, and activists. Avatars also act as role players, gamers, and developers of content—from classes and artworks to virtual commodities of many kinds. One communicates in SL either in text or by voice (with headset). SL’s browser is free but available only to those over 18. en.wikipedia.org/wiki/Second_Life

sim: Simulated region of land in SL hosted by a single server CPU. When this article was written, my neighborhood—Cedar Island—created community with various neighboring sims. They were Sea Turtle Island (owned by Jon Seattle together with the Cedar Island community), Better World (made up of Agua Luna and Meliora Terra and owned by the group Better World, including fellow dog trainer Delia Lake), and Spinoza South (a joint project of George Fox University and the Cedar Island community). secondedition.wordpress.com/sl-glossary/

VKC: Virtual Kennel Club of Second Life. VKC dogs have artificial intelligence and obey the inworld physics of SL. Created by Enrico Genosse, the dogs are active, “aware,” and able to learn. Each breed is a limited edition, and each dog is sold for slightly more than the one before, around L\$3,000–L\$5,600 (US\$12–US\$22). The next scheduled breed is finally a mutt! www.virtualkennelclub.com/

Turing Isle: Location of SL dog park run by Blu Sparkle in the United States and Sandry Logan in the United Kingdom. www.logspark.com/turing-isle-vkc-dog-park/. (For the work of another VKC dog trainer, Vitolo Rossini, who has traumatic brain injury and works with those with traumatic brain injury, see dogfather-sl.blogspot.com.)

rez: To create objects in SL or to set out to use them at a particular site. One needs permission to rez objects in any part of SL.

prim: Basic building blocks for the 3-D objects created in or for SL. Land areas only support a certain number of prims.

scripted objects: objects in SL can have scripts placed inside that allow them to move, listen, morph or be operated, or talk, including to other objects.

to yet different kinds of “animalities.” And yet still, it is trans’s prefixial knowledge that reminds us that bodies are bound through proximities, appropriations, proppings, and other modes of nearness. Consider, for instance, how TRANimals play parasyntactically with both plurality/number-agreement with regard to animal/s and the prefix *trans*. As such, TRANimals is always a conjoining of others to each other such that they are neither singular nor without relationship. If TRANS is always about spatial relationships—as Kelley and Hayward remind, “trans implies movement”—and prepositional involvements (across, through, and with), then the term *animal* is undone as singular or floating (see also Kelley and Hayward 2013). Animal becomes “animals,” not just in terms of plurality but in terms of a plurality that is located within spatiotemporal coordinates. This seems an important reorienting of both species and grammar.

With either TRANimalS or tranimalities, I find myself thinking about these kinds of pluralizing becomings in the digital folk art world of Second Life to see what alternate forms of embodiment and transing are under way that might matter to emergent discussions about the enfolding of trans and animal as “tranimalities.” Some of the questions that these enfoldings raise for me are, What might trans do to animals, animalities, or animacies? If trans is a heuristic that only sometimes attaches to transgender, where else (this where else is marked by that feminist science fiction imperative of “elsewhere”) might this prefixial nerve ending take us in the materializing networks of everyday life?

Taking SL DOggerel Seriously

No longer is human will seen as the source from which emanates the mastery necessary to dominate and control the environment. Rather the distributed cognition of the emergent human subject correlates with—in [Mary Catherine] Bateson’s phrase, becomes a metaphor for—the distributed cognitive system as a whole, in which thinking is done by both human and nonhuman actors. “Thinking consists of bringing these structures into coordination so they can shape and be shaped by one another,” [Edwin] Hutchins wrote to conceptualize the human. (Hayles 1999: 290–91)

Starting from embodiment, which seems to be the place trans always starts, I find myself in the middle now of an ongoing project engaging new companions in various sorts of embodiment. Far from complete, it is very much sort of *partially* working. And isn’t partially also a touch point for trans? Totally here, but also totally there such that *here* and *there* are materialized partials themselves. So what I have so far to share with you (the various readers, listeners, and avatars of this project) are experiences that recode life as a sensuous trafficking from the inorganic to the organic; and even then transcode sensoria as refrains through/with/by which life gets lived, and play is enjoyed, as augmented states of being emerge.

The project emerged in the virtual world of Second Life in a neighborhood called Cedar Island. My SL avatar is Katie Fenstalker. With neighbor Delia Lake, Fenstalker started training a Virtual Kennel Club Portuguese water dog named Saudade (Sau) to herd sheep along with Delia’s VKC Aussie named Gracie. At the time, Delia was the owner of the sim (the simulated neighborhood in SL) Better World, and her activisms in SL for sustainable environments and wetlands management still remain lively presences, although some of these sims no longer exist. Delia is the person who first clued me in about the “learning” capacities of VKC dogs in SL. Dogs like Sau and Gracie are created by SL avatar Enrico Genosse and have been at the heart of a system of dog parks, dog toys and supplies, vet clinics, and trainers in Second Life.

Delia introduced me to the credentialed VKC trainers Blu Sparkle and Sandry Logan at the Turing Isle dog park to learn how to create the carefully marked and embedded strings of commands that are used to train and condition VKC dogs. By teaching the dogs various tricks on your own, you enlarge their repertoire of actions, and you, and also they, can choose among more things to do. You can condition them to perform some actions more often than others, or attempt to extinguish specific behaviors. Behaviors you have introduced can be removed; those that were part of their original repertoire cannot be eliminated, yet the probability of their performance can be significantly lowered. And the special quality of VKC dogs is that they can *learn on their own*, interacting with their environment, with other dogs and avatars, and with other scripted objects acting as various kinds of agencies in Second Life. And VKC dogs tangle well: Sau, Fenstalker, and I are all now entangled as distributed modes of embodiment.

Delia clued me in here too, by telling me stories about the tricks her Aussie Gracie discovered on her own. For example, Gracie learned to sit on a seagull in Delia's sim in order to be carried around when it flew. At first I kept Sau in Katie Fenstalker's inventory with the rest of the other objects I possess in SL, scripted and otherwise. I could only take her out to play with and train in environments in which I have permission to materialize, or as we say in SL, "rez," her. That is because she takes up space on the Linden Lab servers that coordinate the many virtual environments that make up Second Life. Sim owners have only so many prims, or primitive building elements, per amount of space to use, and, understandably, the sim owners use them for their own objects and buildings of various kinds. Only some places in my neighborhood Cedar Island were ever open to rez, play with, and train Sau. The dog parks, however, are all open in this way and are places to meet up with other dogs and owners: places to allow one's dog to settle on that particular sim and even to wander on its own, thus learning in interaction with the environment. Occasionally, however, dogs are pressed to the edge of another sim where they do not have permission to settle, and, as a result, they might go nonphysical. It is also possible on a larger sim to lose track of your dog and thus be unaware of its activities. Or perhaps something in the programming stops working properly or needs an upgrade. In all such cases you end up at the vet clinic, finding or fixing your dog. Losing one's dog is fairly easy to do: dogs can move quickly and in unpredictable directions; one is bound to wind up at a clinic now and then. Not surprisingly, these clinics are located in dog parks and also near all the possible virtual commodities you might buy for your dog and where trainers offer volunteer office hours to aid you in practicing increasingly sophisticated play with your "TRANimals."

In my view, Sau is TRANimals (she, too, is always pluralized). Or maybe Sau and I working together become TRANimals (pluralized through our

relationship). Or maybe together we are something TRANimalS. I am not entirely sure which it is. But whichever version of these *distributed cognitions we make up*, such is my idea of at least one version of *trans* knowledge and being that make up something *TRANimals*. I quite like the curious portmanteau that Kelley and Hayward coined: it emphasizes the TRANS, but also makes it part for the whole “TRAN . . . S” to foreground the tropic device of synecdoche that always enfolds two differentials (two working terms unto themselves that do require one another, as metonymy does) into something else. Moreover, it has a political commitment to plurality, to “animals” rather than “the animal,” and indeed capitalizes the plural “animalS” to emphasize the sociality of all animal species (humans too, of course) over and against the individual. TRANimalS are *a range of kinds of sapience and being*, in various distributed cognitions, syntaxes, and embodiments. Affect is another element among distributed embodiments of interest to *TRANimals*. Consider Hayward (2010: 593):

Texture and sensation are the energetic forces, coextensive overlappings, shared milieus that make species. Species are sensuous responses. The OED tells us that a species is an “emission or emanation from outward things.” Rather than bodies as direct products of environments, I suggest that an organism’s responsiveness with an environment are the conditions of its emergence. The organism is a transitional response to its sensorial limits, which are always an incitement rather than a determinant; that is to say, through its corporeal and sensorial capacities it attempts to coordinate with its own specified environment. An organism is not a reaction to an environment, but rather through its senses it manifests with and of an environment as an improvisation.

If we regard Hayward’s discussion as an enfolding composite of percepts and affects, TRANimalS like Sau are distributed sensations. While Sau is conditioned by her programming—the limits of VKC design—she is also learning from my learning, she is playing with my playing. Each stroke of my touchpad, tap of my keyboard, and interaction in immersive space (an environment newly other, or Seconded, to both me and Sau) builds out a sensuous refrain that is the condition of speciation. For me, the sensuousness that is Sau and me also points to what I have called *distributed being and cognition* (King 2012), which are among the trans knowledges that I have introjected here. Thus, this is another example of what Hayles (1999: 290) means when she says that mastery is abandoned for distributed cognitions. For me, these cognitions are embedded in the distributed embodiments of Second Life. While they are indeed cognitions, they are also always bodily perceptions and affects. And, as Hayles suggests, human and nonhuman forces, agents, and actors populate these distributed formations.

Importantly, following Hayles, these populated digitalities (both the fingery and coding kinds) are not just anthropomorphic fantasies of control but the conditions for yet-to-be-known emergences (like the limits of disciplinarity transdisciplinarity beguiles). So, yes, distributed embodiments are always populated by nonhuman actors, but what I am suggesting here is that various kinds of animalities emerge *through* and *with* these interactive, immersive, and augmented realities of Second Life. In other words, the interdigitation of fingers and codes sets up the capacity for more forms of species and being to emerge and evolve. If “species are sensuous responses,” then how is the sensuous relay between Sau’s programming, SL interface, and my affective involvement *not* about us becoming something more than ourselves? With the sensing refrain that is Sau’s programming, I am attaching myself *to her* in an act of *becoming with* her. In the cross-pulsing of our involvements, we are building yet other refrains through which species might emerge. Hayward might contend that in a broad sense, speciation is about the evolution of matter as it is variously percussed by sensation.

Trans, Transdisciplinary, and Posthumanities

If TRANimalS are distributed beings and sensations (affects and percepts), they are networked among a transdisciplinary posthumanities emergently self-organizing under the pressures of global academic restructuring. In such restructuring, states appropriate their entire educational systems to further nationalist strategies for economic globalization, and, among various national restructurings, political economies of sciences, images, culture industries, and technologies reorder in infrastructural assemblages. TRANimalS are not innocent within such formations and restructurings; indeed, these mixtures and distributions too are the sensuous refrains through which becomings and assemblages happen (however much these same becomings and assemblages might also at times refuse these refrains, or demand ontological primacy against or despite of these global pressures). That is to say, sensation is not simply about euphoria (although it is that too) but also about restraints and limits that enable the reach and resource of distributed being.

Transdisciplinarity and posthumanities are never innocent practices. Wickedly, they knot and entangle with academic restructurings in unpredictable ways that can never be managed, threading among alternate and unmetabolized knowledges. It seems to me that trans is well suited for enfolding these modes of making and sharing. Labor is revealed and opened by trans; trans is literally the material of its transing. As such, trans does for animals what few epistemological engines have done: it enables them (us) to be understood as the very processes of mattering. TRANimalS are ardently materialist.

TRANimalS are thus akin to feminist technoscience studies projects, objects, and analytics. According to the late Leigh Star (1995: 18–19):

Analytically, it is extremely useful to think of human beings as locations in space-time. We are relatively localized for many bodily functions and for some kinds of tasks we are highly distributed—remembering for example. So much of our memory is in other people, libraries, and our homes. But we are used to rather carelessly localizing what we mean by a person as bounded by one’s skin. . . . The skin may be a boundary, but it can also be seen as a borderland, a living entity, and as part of the system of person-environment. . . . Parts of our selves extend beyond the skin in every imaginable way, convenient as it is to bound ourselves that way in conversational shorthand. Our memories are in families and libraries as well as inside our skins; our perceptions are extended and fragmented by technologies of every sort.

If, as Star suggests, embodiment and being are distributed among memories, capacities, and corporealities that work and play as *events* rather than *nouns*, *processes* rather than *things*, surely this also names the kind of TRANimalS that Sau and I are, *the very* processes of “becoming with” (Haraway 2008). Just as trans appears as an element in globalization, it also offers a reveal, a *transparency*, in its own processes of emergence. Importantly, this is not transgressive exceptionalism; on the contrary, trans is trans, insofar as its transactions are materialized. Trans may or may not be transgressive, but the more significant dimension of trans is its transconjugants; that is to say, trans cannot shake its involvements, its frame of materialization, or its antecedents.

Star’s appeal to “skin” as a “border” and a “borderland” is here a thinking in conversation with Gloria Anzaldúa’s *La frontera*. (Anzaldúa walked the dog parks of Santa Cruz too!) This is not a body dematerialization or a body dissolve that relinquishes agency but a way of networking materializing forces, critters, intensities that constitute bodily matter. None of these discard Anzaldúa’s interventions or racinations of skin. Working with *Coyolxauhqui* from Aztec mythology, Anzaldúa considers the relationship between wounds and the healing process: “I became a visitor in my own skin. My body’s memory—that’s what *Coyolxauhqui* symbolizes for me” (quoted in Keating 2009: 297). When the US-Mexican border serves as a bleeding wound in addition to a barrier between nations, this wound is embodied in Anzaldúa’s articulation of Chican@ subjectivity. Excruciatingly, the wound resists. There is a resonance between this kind of agential wound and the “trans cut” that Hayward (2008) describes. For Hayward, like Anzaldúa, the cut is not an absence (even if the cut is a response to an affective

wound—gender is its own policed border) but the conditions through which some kinds of trans emerge: trans-form.

The trope of wounded or cut skin that resonates between Star, Anzaldúa, and Hayward addresses the question of ideological, affective, and sociopolitical formations that break the skin, expand the skin. When transdisciplinary wounding is an effect of restructuring, another of the bits among the affective, political, and economic states of indebtedness, it may be yet, diving into the paradox, also a site of critical engagement and resistance among the epistemological engines of knowledge. How might we work to pay close attention to what is happening when it is happening then? Work actually to open to the coming times in spirit and care, not playing godlike prediction games but working with what matters?

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In these terms is not to imperil human survival but is precisely to enhance it, for the more we understand the flexible, adaptive structures that coordinate our environments and the metaphors that we ourselves are, the better we can fashion images of ourselves that accurately reflect the complex interplays that ultimately make the entire world. . . . As [Gregory] Bateson, [Francisco] Varela, and others would later argue, the noise crashes within as well as without. The chaotic, unpredictable nature of complex dynamics implies that subjectivity is emergent rather than given, distributed rather than located solely in consciousness, emerging from and integrated into a chaotic world rather than occupying a position of mastery and control removed from it. Bruno Latour has argued that we have never been modern; the seriated history of cybernetics—emerging from networks at once materially real, socially regulated, and discursively constructed—suggests, for similar reasons, that we have always been posthuman. (Hayles 1999: 290–91)

In response to questions about my SL companion dog Sau and our trainings together, I point out that my SL avatar Katie Fenstalker is not a stand-in for me, for Katie King, that is, anymore than the first-person voice in this essay is. Fenstalker is a much appreciated, sensuously augmented element of myself, an avatar that adds bits to my sensoria enfolding *first life* (FL) and SL. The name Second Life is a misnomer in that it assumes some numerical divide, or tertiary register, of life. Even when marked by scales of involvement, degrees of immersion, if we follow Star's and Hayward's earlier quotations, taking embodiment in as always also sensuous cognitions, then it is through sensation that Fenstalker and I find ourselves enfolded, being-with and cocreating one another.

In a talk I gave in 2009, “Grrrling It in SL” (grrrlingitinsl.blogspot.com), I shared some story-bits of such visceral involvements among avatars and selves:

It was right after my first in-world class for an online course on teaching in SL. I was going through the inventory of teaching gadgets that the instructor had given us, trying them out and imagining how to use them in this oddly metaphors-made-real virtual teaching environment. All of a sudden, I had an uncanny and doubled sensation of rezzing these peculiar gadgets, that is, making them appear and readying them for use, as if I were me as my avatar in both my First and Second Life classrooms at the same time. That double consciousness we call “play” was momentarily quite visceral. As if aware of the very “hormones coursing through my veins” I experienced cognitive sensations that felt utterly embodied, and experienced my worlds of teaching as simultaneously superimposed in tandem. The sensation was so intense that just describing it I feel again a bit of its echoing bodily frisson. . . .

When I first logged on to SL, I asked around about it. Several folks said to me that they found the empty sims of Second Life a bit sad. I took from this the idea that once these had been vibrant and full, but now were no longer. With this in mind as I walked the streets of various showcase simulations, usually one of a very few avatars in range, I felt an odd loneliness. Yet at the same time, these so-called empty spaces could occupy me for the hours I no longer spent watching television in the evening. These spaces were very absorbing, I spent my time clicking on objects that then gave me notecards and did various things. . . .

Otherwise the lag—the dizzying sensation of alternate freezing and moving, seeing and not seeing the 3D graphics—makes for a whole body sick stomach feeling that can outlast one’s computer session. Other platforms fault SL for this, saying that the business model doesn’t allow for scalability. But at the community forum last Wednesday one person remarked that this was not a bug but a feature: in other words, that these effects were desirable. Small groups intensively interacting and generating content are what we mean by social networking, he pointed out. . . .

My former teacher Gregory Bateson, a theorist of play, worked out its [play] double consciousness. As animals and children learn to play they come to know that there are some ways a play self can and must be separated from an everyday self, and they learn to perform this separation in interactive cognitive and social communication forms of “not”: they amuse themselves by performing the communication “this is not it.” The puppy nips, but not hard enough to injure. (Violence? Not.) The teen kisses in *Spin the Bottle*, but not necessarily the person they like the most. (Sex? Not.) Yet at the same time there are also other ways in which these selves simply are not separated, in certain physiological processes and

psychological equivalences. The nip actually hurts a bit, the kissing causes a blush and stammer. A double consciousness of being in both these states at the same time is possible, as Bateson puts it in formal terms, because play creates its own commentary in itself about itself as an intense and pleasurable interactive dynamism—communicatively social, as well as neurological and hormonal. Such metacommunications—or communications about communication—are performed by embodied selves at multiple “levels” of organic and social system, some sequentially, some simultaneously.

And the sensuous becomings of avatars and especially our attachments add more to the question of Sau, my companion dog in SL. In AI, or artificial intelligence, worlds, Sau might be considered an *autonomous agent*, which learns and adapts in interaction with its environment. Such interactivities illustrate some self-organizing properties at a different scale of detail but nonetheless are also properly *transconnected* to the macroscale self-organizations of global restructurings amid reorderings of knowledge worlds; these all occur at various degrees of *resolution*, or emergence. Still, Sau is not self-reproducing, even when perhaps self-learning, while these other orders of self-organization might be understood to be *evolving*, a shift of *that* term across boundaries, suggesting perhaps *a range of kinds of sapience and being*, in various distributed cognitions and embodiments, thus *TRANimalS*.

Some of the most exciting distributed embodiments of interest to *TRANimalS* describe experiments in play, art, and commercial entertainment drawing on understandings of mammalian-affective architecture and inspiring creators of artificial intelligence today. These are *trans* linkages between sensory media, on the one hand, and mammalian “animalities” and AI agents similar to Sau, on the other. I am thinking especially of the digital arts of Ian Horswill, who looks to attachment theory as a guide to creating AI agents for interactive dramas that develop and display mammalian behaviors of psychosocial bonding. In his paper “Men Are Dogs (and Women Too),” Horswill (2008: 2) argues,

There isn’t much evidence to suggest there has been a wholesale restructuring of the higher-levels of the nervous system between humans and other social mammals. Since humans share a great deal of social behavior with other species, it’s reasonable to suspect that the basic behavioral systems of social mammals are still intact in humans, running alongside the human-specific capabilities, and able to recruit those systems to accomplish their goals. To put it somewhat snarkily, humans are dogs with large forebrains.

For most AI applications, this might not be an important issue. However, . . . interactive entertainment applications make these kinds of issues more relevant

to applications than they might have been 20 years ago. . . . [For example,] what the architecture might look like, since there's been almost no work on trying to design architectures that link animal behavior with higher level cognition. [In contrast] early efforts at simulating one particular social behavior system, the Attachment Behavior System, [have] been relatively well studied.

Horswill weaves together two threads of the story I am telling here: First, that interactive entertainment applications are forms of globally restructuring knowledge work, elements of embodied learning, games, and economies that work out and among redistributed and augmented being. Second, Horswill's point that humans are dogs with large forebrains might sound snarky, but it expresses something I am sensuously learning about my affective relationships with Sau.

Sau's agency in particular does not *alone* model mammalian attachment, although Sau does *elicit* it, which I assume is the point in interactive digital drama too. Indeed, working together as *TRANimals*, she and I *together* model some kinds of mammalian attachment, something I was not especially expecting but that was brought to my attention by others in various ways. Without consciously realizing it, when I took pictures of Sau and me in SL, I created, and choose to share, pictures of us displaying various kinds of training and other attachments (figs. 1–3). They elicited comments from others training First Life dogs, such as, “I love this! Sau is my favorite dog—in these pics, only she is actively paying attention with her human, actually watching the sheep before she had to do so, on task and in play in fully engaged and engaging ways. Am I biased?” and “You and she are definitely into a real training relationship, working in both directions!”

Figure 1.
Sau and
Quackers
and me



And when I took a brief video of us playing together with her duck dog toy Quackers, I was taken aback to see how crude the screen play was shorn of the affective and cognitive dimensions not captured on-screen. I had been joking with friends that Second Life could be understood as “a data visualization of distributed cognition and being,” but I realized that I ought to say instead, “a data visualization *with attachment*.”

And when I realized I had not yet given Sau any opportunities to be autonomous, to learn outside my inventory without me around, I found myself reluctant and embarrassed, emailing a friend:

How do you explain to a cute little AI agent that you are going away but will come back? And why would one want to? I think Horswill has got to have the answer as much as anyone. As well as some of the research I’ve found that shows that folks react to computer interfaces as if they were people. We are engaging in co-mammalian community of some kind and we include our beloved technical devices who clearly are mammalian as well, having engaged their agency together with our own? Welcome to the Mammal Family Reunion! as they say at the National Museum of American History. Whose evolution is this anyway? Sau will certainly get a lot more being-an-agent time than she would get sitting in my inventory. And she will be interacting with a richer lifeworld than we have been using together, as well as having more THINGS including people/avatars to interact with too.

As a student of Gregory Bateson (see [1972] 2000), I agree with game designers Katie Salen and Eric Zimmerman (2003) that virtual immersion is neither controlled, enabled, or defined by technical realism but complexly and simulta-



Figure 2. Dog and human avatars socialize at the Virtual Kennel Club.



Figure 3. Saudade and companion explore wetlands.

neously involves Bateson's double consciousness of *play*, where cognitive sensation amid multiple affectivities are continually teased between assertion and rejection (violence? not), and include a doubled unconscious *connoisseurship* of realist conventions pressured at new horizons.

I cherish a recent history of digital animation film company Pixar that recounts how its first demo of "self-shadowing" image software, showing two lamps playing together, worked with affect and attachment (see Paik 2007). It was inspired by play with an infant, and, at the annual convention of computer graphics experts, the play elicited from a colleague from Pasadena's Jet Propulsion Laboratory not some computational concern with the shadowing algorithm or another technical issue but instead the earnest question, "Was the big lamp the mother or the father?" Attachment indeed!

I stop now without concluding, because this investigation has not ended but rather is just beginning. I continue to think on with more transconnections, including Vinciane Despret's retelling in "The Body We Care For: Figures of Anthro-zoo-genesis" of the Clever Hans story. Nowadays, this story of a horse that could read the reactions of humans who were giving it problems to compute is used to belittle humans' abilities to project meaning onto animals. This punitive parsimony of explanation valorizes the experimenter as, says Despret (2004: 118), an "automaton," or one who is moved only by itself, to ensure the methodological purity of an ideology of experimentation. But Despret says instead, "Hans could play the role of a device that induced new articulations between consciousness, affects, muscles, will, events 'at the fringe' of consciousness. . . . a device that enabled humans to learn more about their bodies and their affects. Hans *embodied* the chance to explore other ways by which human and non-human bodies become more sensitive to each other" (114). Hans too was TRANimals.

Some Parting Bits on Significant Otherness

Answers to these questions can only be put together in emergent practices, that is, in vulnerable, on-the-ground work that cobbles together nonharmonious 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. (Haraway 2003: 7)

Significant otherness folds together significantly different (even radical alterity) with significant *other* or *intimate*. *Significant* and *other* take on multiple registers, and it is this subtending double bind that evokes the shifting scales of beingness and intimacy enfolding King, Fenstalker, and Sau. In some ways, trans and TRANimals belong to the pack of significant otherness. TRANimals is one of those "nonharmonious agencies" cobbled together to foreground not transcendentalism or transgression but textures of attachment and involvement that do

not do away with history or experience but keep the lines of involvement humming and vital.

And what about a feminist transdisciplinary posthumanities? For the purposes of this essay, these arguments boil down to this: we love to create worlds, knowledge worlds among them. We move and travel and alter the edges of these all the time. We inhabit some as members and others as peripheral participants, and to do both, simultaneously, can be another cognitive sensation of, I would claim, world historical importance. Some may consist, at least here, of only a few members, and those members' intensive projects may tie them together in clusters of intellectual energy that mandate careful negotiations of meaning and tools. This is one meaning mobilized today for the term *transdisciplinary*: sometimes smallish intensive groups of individuals drawn together from widely varying venues to work closely on collective projects and products that create their community of practice; sometimes augmented extensive assemblages of objects, beings, processes in adaptation.

I would like to, as Bateson would have said, "meta" that reality to suggest more meanings of transdisciplinary. Scoping and scaling out and back as it works an always doubled consciousness, never just disciplinary, or even interdisciplinary, but transdisciplinary as it scales out its multiple worlds. This also means not anxiously deflecting recursion or vagueness or theory or the abstract or the paradoxical, but working their edges, in interactivities that reflect whole ecologies of mind, where human, nonhuman species, and TRANimalS meet.

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Note

1. *HistConer* is a term of affinity, a signal for a type of attachment, marking a critical and creative filiation for play, perhaps even more narrowly a kind of Harawavian play shaped by Donna Haraway's mentorship. Hayward and I share a commitment to staying with the trouble of *and/both*; for me, this is what *HistConer* points to.

References

- Bateson, Gregory. (1972) 2000. *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*. Chicago: University of Chicago Press.
- Despret, Vinciane. 2004. "The Body We Care For: Figures of Anthro-zoo-genesis." *Body and Society* 10, nos. 2-3: 111-34.

- Haraway, Donna. 2003. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm.
- . 2008. *When Species Meet*. Minneapolis: University of Minnesota Press.
- Hayles, N. Katherine. 1999. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press.
- Hayward, Eva. 2008. "Lessons from a Starfish." In *Queering the Non/Human*, edited by Noreen Giffney and Myra Hird, 249–63. Aldershot: Ashgate.
- . 2010. "FingeryEyes: Impressions of Cup Corals." In "Multispecies Beings and Becomings," edited by Stefan Helmreich and Eben Kirksey, special issue, *Cultural Anthropology* 25, no. 4: 577–99.
- Helmreich, Stefan. 2007. "An Anthropologist Underwater: Immersive Soundscapes, Submarine Cyborgs, and Transductive Ethnography." *American Ethnologist* 34, no. 4: 621–41.
- Horswill, Ian. 2008. "Men Are Dogs (and Women Too)." Paper presented at the Association for the Advancement of Artificial Intelligence (AAAI) Fall Symposium on Natural Intelligence and AI, Arlington, VA, November. www.cs.northwestern.edu/~ian/.
- Johnson, Steven. 2001. *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*. New York: Scribner.
- Keating, Ana Louise, ed. 2009. *The Gloria Anzaldúa Reader*. Durham, NC: Duke University Press.
- Kelley, Lindsay, and Eva Hayward. 2009. "TRANimals: Theorizing the Trans- in Zoontology." Panel at the Society for Literature, Science, and the Arts Annual Conference: Decodings, Atlanta, November 5–8, 2009. www.litsciarts.org/slsa09/archive/slsa09-1132.pdf.
- . 2013. "Carnal Light." *Parallax* 19, no. 1: 114–27.
- Kier, Bailey. 2004. "Gay Rodeo: Defining Urban and Rural Identities and the Terms of Community and National Citizenship." Paper presented at the Lavender Languages Conference, American University, Washington, DC, February 15.
- King, Katie. 2012. *Networked Reenactments: Stories Transdisciplinary Knowledges Tell*. Durham, NC: Duke University Press.
- Paik, Karen. 2007. *To Infinity and Beyond! The Story of Pixar Animation Studios*. San Francisco: Chronicle.
- Salen, Katie, and Eric Zimmerman. 2003. *Rules of Play: Game Design Fundamentals*. Cambridge, MA: MIT University Press.
- Star, Susan Leigh. 1995. Introduction to *Ecologies of Knowledge: Work and Politics in Science and Technology*, edited by Susan Leigh Star, 1–35. Albany: State University of New York Press.