ORANGUTAN, SCIENCE, AND COLLECTIVE REALITY

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The future of orangutan conservation and research is tied to public perceptions, and to the government and corporate powers that react to and shape the collective realities of their constituents. It is time for primatologists to organize to influence those collective realities. Crucial to this effort is the reconciliation of contrasting metaphors based on the objective, interpretive, and interactive perceptions of orangutan which are reported by experimental scientists, field naturalists, and clinical practitioners. This treatise begins such a reconciliation by comparing reports of profound interspecies events (PIEs) -- social phenomena identified and studied by the author, that relate directly to primatologists' different value laden perceptions of nature. The relative effectiveness of scientific, naturalistic and humanistic scenarios in evoking human concern for wildlife must be considered when deciding which stories to tell and how to tell them. Pitfalls in reporting orangutan behavior in two perceptually "hot" areas, sexual behavior and male dominance, are discussed. A collaborative strategy is presented for producing and promoting collective realities that will promulgate the safety and well-being of orangutans in captivity, in sanctuary, and in their native habitats.

KEY WORDS: orangutan conservation; interspecies events; perceptions of wildlife; scientific metaphor.

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INTRODUCTION: ORANGUTAN, SCIENCE, AND COLLECTIVE REALITY

There are countless ways to perceive orangutan behavior. All those ways are both biased and true at the same time. It's truly what the human observers see -- inside their unique minds. Those minds are shaped to perceive behavior by a variety of genetic, developmental, psychosocial, and situational factors. If we are to study the orangutan, we must study ourselves at the same time. This requires levels of self awareness and a willingness to disclose personal facts that cannot be expected of everyone. Many scientists entered primatology wanting to be detached observers, to avoid introspection, even to avoid people, politics, and conflict. All these are legitimate desires, honorable escapes, reasonable ways to stay cool. Unfortunately, however, it's become very hot in primatology. Political and ethical contradictions are straining our commitment. We are forced to look at ourselves and ask "what can we do to resolve confusion and conflict; how can we collaborate to assure that primates and their habitats are understood, appreciated, and protected?"

If orangutan is less appreciated than other great apes, it is not only due to its semi-solitary arboreal lifestyle in the rain forest. It also comes from contradictions that have arisen out of its scientific study. Altogether, primatologists are conflicted about orangutan -- its behavior, evolution, well-being. Ultimately, the crucial target for orangutan awareness is the general public, and the government and corporate powers that react to and shape the collective realities of their constituents. What consumers, media moguls, and governors think of orangutans is more important than what we primatologists debate about them. It is the former, after all, who will decide the fate of every endangered species on this planet. If we want to conserve the orangutan and its rain forest habitat, we must contribute our combined ideas and talents to influencing those who mold and manifest public opinion.

The Disney Corporation's recent rendition of Rudyard Kipling's Jungle Book is an enjoyable movie asserting the wonder and wisdom of nature, and the greed of humanity. In it a trained orangutan performs the role of Monkey King. Although the ape is caste in a positive supporting role, he is used primarily for comic relief, mimicking human acts and emotions in otherwise tense scenes. The impacts of his performance on public perceptions of the species are likely mixed. At best the audience comes away from the experience aware of the orangutan's human-like intelligence. At worst, they come out thinking that "those big orange monkeys are goofy; why fuss over them?" And while primatologists rightfully grumble over public misinformation, animal rights activists consider picketing Disney and demanding that the poor "oh-rang-a-tang" be sent back to Borneo.

Few of these antagonists know that Mogli's Monkey King friend is a captive bred orangutan actor named Lowell who would be extremely distressed and depressed if he were taken from his human family. Fewer still know that Lowell would stand little chance of survival in the jungle, even if there were a place to send him and funds for his care. Knowing that, some still find it hard to acknowledge that unique individuals like Lowell can do more for their species working in Hollywood than they can starving in Sumatra. So can apes in zoos, in wild animal parks, in homes, and in laboratories do more -- for conservation -- if all primatologists organize and act to help them.

The crucial issue here is organization. How can primatologists from field, zoo, and laboratory collaborate when we come with such divided experience and contrary values? In their volume on orangutans in Borneo, Kaplan and Rogers (1994. p. 16) warn that "we are bound by views and attitudes to nature which in turn determine the way in which we think of orang-utans or any other species." It is time for the unbinding of our views and attitudes. As "pure scientists" we may argue for the Occam's Razor edge of mechanical simplicity. But there is no longer a pure science of primatology. We are all conservationists now, and as such, we must strive for the greater utility. Whatever luxury of pride and prejudice we came here with, now we must rise above it, and change, for the welfare of our primate kin.

Richard Rorty (1982, p. 60) made the case with elegance, for our human potential to change, in his review of the philosophy of mind: "For beyond the vocabularies useful for prediction and control -- the vocabulary of natural science -- there are the vocabularies of our moral and our political life and of the arts, of all those human activities which are ... aimed at ... giving us self images that are worthy of our species. Such images are not true to the nature of species or false to it, for what is really distinctive about us is that we can rise above questions of truth or falsity. We are the poetic species, the one which can change itself by changing its behavior -- and especially its linguistic behavior, the words it uses."

Rorty challenges humankind to redefine itself. In so doing we redefine the "other". As Edward O. Wilson (1984, p. 74) says, "the symbols of art, music, and language freight power well beyond their outward and literal meanings". Primatologists must take responsibility for the power of their words, and use them with pointed intention to foster care and reverence for the other species we study and use.

ORANGUTAN: A METAPHOR FOR HUMANITY

It is often asked whether or not orangutan is a biological model for humankind. More than a model, orangutan is a metaphor. How we shape and fulfill that metaphor reflects our desire and our terror, our sense of origin and destiny, not only for humankind, but for all life on earth. Elizabeth Atwood Lawrence warns us that : "Interpretation of an animal's behavior in metaphorical terms can result in the creature being classified as "good" or "evil" -- with consequent effects on the preservation or destruction of the species. The symbolizing process can enhance positive affiliation, resulting in preservation, or it can cause alienation of that animal from the human sphere with consequent destruction." (Lawrence, 1993, p. 332). Evidence is mounting that the greater part of human conflict emanates from our alienation from the rest of nature -- our failure to honor our "biophilia ... the innately emotional affiliation of human beings to other living organisms" (Wilson, 1993, p. 31). Having lost our place in the natural order, humans heap chaos on the planet. Psychologists devote lifetimes to enhancing positive affiliation among varied factions in the human community -- generations and genders, races and religions, occupations and cultures (Rogers, 1961; Rogers & Rose, 1971; Rose & Auw, 1974; Rose, 1983). We must expand the scope of these endeavors to include the affiliation between humanity and other life-forms (Rose, 1994c). This effort is best launched in primatology because that is where humankind struggles to face the meaning and impact of its natural origins (Leakey & Lewin, 1977; Cavalieri & Singer, 1993). But within primatology, as in any professional pursuit, there are factions and conflicts.

At the XVth Congress of the International Primatological Society (IPS) in Bali well over 100 primatologists participated in a symposium on ethics (Rose, 1994b). Panel discussion and audience interaction during a four hour time span was intense, and revealing. The bottom line was the discovery that harmonious collaboration among factions was entirely possible -- for those who attended and stayed. This doesn't mean minds were changed. It means divergent viewpoints were expressed and accommodated. That is the first and essential step towards consensus. This chapter considers a further approach toward consensus -- a symbolizing process that expresses and accommodates varied perspectives in writing, and in action.

As Henri Walton asserted: "the unique image is not the point of departure. Perception begins by multiplying the points of view for the needs of practical action ..." (Clay, 1978). The need for practical action regarding orangutan conservation is eminently clear. Failure to act has come from the insistence of individual observers that their unique images of their orangutans must be the singular points of departure. Defining the metaphor of orangutan to serve one's self rarely serves the orangutan. The optimal reality with regard to any species is the collection of convergent perceptions of all those who define, describe, and relate to that species. To create such a reality requires movement through metaphor to metonymy, through relationship of similarity to relationship of contiguity (Jakobson, 1962). We must place the metaphors of disparate primatologists into contiguity, to form a collective reality that will stir the public to protect the orangutan and its rain forest habitat.

INTERSPECIES EVENTS AND PERCEPTIONS OF NATURE.

Persons who have encountered orangutans know how evocative they can be. Still, in the scientific literature, it's quite rare to read of the impact of the red ape on humans. Primatologists describe the animal in its environment, not their reactions to it. Even in biography one must cull hundreds of pages for occasional anecdotes about interspecies events, typically written for purposes other than the direct illumination of human-ape affiliation (Rose, 1994a). Galdikas' (1995) recent autobiography is an exception. It is a well crafted work aimed at symbolizing and enhancing affiliation between human and orangutan. Lucid description of the author's interaction with rehabilitant and wild apes evokes empathy for and understanding of primate and primatologist. Interpretation of natural events are cast in a consistent positive light.

At the end of the book, Galdikas (1995, p. 403) declares : "Looking into the calm, unblinking eyes of an orangutan we see, as through a series of mirrors, not only the image of our own creation but also a reflection of our own souls and an Eden that once was ours. And on occasion, fleetingly, just for a nanosecond, but with an intensity that is shocking in its profoundness, we recognize that there is no separation between ourselves and nature. We are allowed to see the eyes of God."

These are words that metaphorically reflect a distinct cultural and personal viewpoint. Persons with Christian background will recognize that what Galdikas describes is an epiphany -- a manifestation of divinity, in religious terms. In the parlance of modern poets and philosophers, epiphany is any event that sheds fresh light on a profound mystery of life. It is the mission of natural scientists to enter those domains where life's mysteries are ripe for revelation, experience the situation, and report our findings so others may benefit by our discoveries.

The personal recognition of unity between man and nature to which Galdikas alludes has been the subject of this author's intensive research. It was during the 1994 International Orangutan Conference that spawned this volume (Rosen et al, 1995) that I introduced the concept of profound interspecies events (PIEs) and began direct study of its manifestation among primatologists. Results of the first phase of research on PIEs were presented at the XVth Congress of the IPS in Bali (Rose, 1994a). At the Congress and thereafter, interviews and workshops with scores of persons have documented epiphanies in primatology to be used as a data base for scientific scrutiny and as anecdotes for promotion of public empathy and political support for primate research, care, and conservation (Rose, 1995).

Interspecies epiphanies, like any other natural event, are experienced and reported in different ways, according to who is involved. This chapter focuses on professional groups that manifest three distinct value structures identified by Stephen Kellert (1993) in his research into public attitudes toward nature: Experimental Scientists (scientific values), Field Researchers (naturalistic values), and Clinical Practitioners (humanistic values). While there are other value structures at play in the domain of interspecies experience (moralistic, ecological, utilitarian, aesthetic, etc.), they often appear to overlap and define subsets within the three professional categories on which we focus.

Clearly the Galdikas metaphor cited above is not scientific. Neither is it humanistic. In fact it emanates from the naturalist "sense of fascination, wonder, and awe derived from an intimate experience of nature's diversity" (Kellert, 1993, p. 45). The naturalistic value structure is a useful channel for attracting humans to affiliate with primates. Popularity of nature documentaries on public television and the rise in eco-tourism demonstrates the attractive power of ventures into wilderness. While there is concern regarding adverse impact of these activities, they do add value to endangered ecosystems. Among primatologists, Field Researchers are most affected by this attitude complex. Naturalistic PIEs, in which animals show extraordinary elements of nature to human observers (the SEEN scenario), provide rich interpretive data about the orangutan. Naturalists are typically satisfied with visual contact with wild animals. Others seem to need hands-on experience.

Kaplan and Rogers (1994, p. 94) reflect that "one may get to know orang-utans to a point by merely observing them but we begin to relate to an 'other' only when we interact." They go on to "admit" that they had an encounter with a young female orang-utan which "retrospectively proved of greater value and importance than all the textbooks we had read. ... This started a long love affair which is cer-

tainly one valid explanation why she (Kaplan) has felt compelled to return to the same spot of the Bornean forest again and again." This anecdote exemplifies the humanistic value structure which Kellert (1993, p. 52) says "reflects deep emotional attachment to individual elements of the natural environment ... usually directed at ... the larger vertebrates." Persons helping to rehabilitate orangutans back into the rain forests of Borneo are among the most deeply committed conservationists this author has interviewed. Humanistic PIEs in which an animals Seek A Friendly Encounter with humans (the SAFE scenario) are reported most often by these persons. Clinical Practitioners of all ilk -- veterinarians, keepers, etc. -- contribute valuable interactive data to the understanding of orangutan. Ironically, there is great controversy surrounding the efforts of these dedicated individuals. A confluence of attitudes, beliefs, and affective factors makes it hard for some primatologists to admit to or accept strong humanistic values. Conversely, humanists can be less than tolerant when dealing with persons and perceptions that contradict their more emotional connection with individual members of other species.

Preeminent among the adversaries of humanism is the Experimental Scientist, whose scientific value structure reflects "the urge for precise study and systematic inquiry of the natural world, and the related belief that nature can be understood (best) through empirical study" (Kellert, 1993: 47). This kind of primatologist is engrossed in exploring the details of the organism. The goal of the scientist is to produce objective data that Exhibit Natural Reactions which Illuminate Crucial Hypotheses (the ENRICH scenario). Success in this pursuit is profoundly exhilarating, and hard-sought. Nadler (1995) recalls the "great sense of satisfaction" felt when he finally realized why captive gorilla males court and aggressively initiate copulation with non-estrous females -- a behavior rarely seen in the wild. At Karisoke, Nadler (1989) observed a male gorilla perform an increasingly complex display to a recalcitrant estrous female. "When I saw an example of the complete male chest-beat display (chest-beat, charge, stance) preceding copulation, the 'light bulb' really went off and I realized what had been going on in the laboratory tests. The behavior of captive males was an exaggeration of the normal wild male response to estrous females when the latter came closer than 3 meters. The males in the laboratory tests were responding to the close proximity of the non-estrous female as if the female was in estrus. It was an artifact of the captive environment." That "lightbulb" experience is as profound to the scientist as the most awesome natural epiphany to the naturalist, or the deepest interspecies connection to the humanist.

Economics pushes many scientists into using animal's to solve human problems (Rose, 1968). This overlays a utilitarian value structure onto the scientific, stressing "the physical benefits derived from nature as a fundamental basis for human sustenance, protection, and security" (Kellert ; 1993, p.45). A utilitarian scientist can seem a cold character, often practicing detachment from the animals with which s/he works. At the same time, most are deeply devoted to the care of individual subjects and conservation of the species. Scientists of this ilk need no personal reciprocation from primates in return for their devotion. Still, when they are personally touched by their animal subjects, it can be exceptionally profound. (See story of lab research technician and dying chimpanzee [Rollin, 1993, p. 213]).

This author's first profound interspecies event occurred in 1963 at the Brain Research Institute of the University of California at Los Angeles. A frightened janitor tracked me down to tell me that a pigtailed macaque had escaped from his cage and was ransacking my lab. This had never happened to me before. Subduing a scared monkey in a cage was one thing; catching an escapee was another. As I entered the room and peered through the haze and clutter; a familiar smacking sound drew my eyes to the far wall. Snicky, a three year old male, starred down at me from atop a bookcase, hair on end, eyes wide, teeth bared. I smacked back at him, our usual morning greeting. He shuddered and at once jumped down from the case, leapt into my arms and held on. In the distance he had seemed so huge, imposing, wild. Now in my arms he was small, vulnerable, and dependent. I sat on the linoleum floor with this animal in my lap -- cleaned the scab that edged his dental cement skullcap, checked his implanted electrodes to be sure they hadn't loosened, and examined his dilated eyes. I remember thinking "after all I've done to him, he wants my friendship more than his freedom."

Uncontrolled personal encounters with primates are rare for most experimental scientists. We strive to avoid them, primarily because they complicate protocols and confound conclusions. Such events also induce human-animal bonds that have effects on the researcher: "If you bond with your animal you won't be able to dissect/shock/euthanize the animal. Save yourself the conflict." (Davis & Balfour, 1993, p. 2) To study cognition and language learning in apes appears to require social bonds (Oden & Thompson, 1993). Those bonds help researchers like Miles (1993: 50, 54) make the case for the ethical treatment of apes: "We had a close relationship with Chantek. He became extremely attached to his caregivers, and began to show empathy and jealousy toward us. ... We have ... shared common experiences, as if he were a child ... have dreamed about him, had conversations in our imaginations with him and loved him. ... I have seen many people gasp with amazement as they conversed with Chantek, subjectively experiencing him as a person. If it were possible for all humans to have this experience, this book might be unnecessary."

The vast majority of humans require a bond with the other, before they will commit to protect the other. Interpersonal bonds, from infancy through old age, are grounded in a fundamental need to expand social contact outward, from self to other to community, from humankind to kindred species, and beyond (Rose and Auw, 1974; Rose, 1988). Ego, ethno, and homo-centric attitudes are prejudices produced for the most part by culturally induced fear, hatred, and ignorance. Overcoming those prejudices regarding our primate kin requires a concerted public relations effort to report interspecies events that are profound and positive enough to transform fear into hope, ignorance into understanding, hatred into love.

THE SYNTHESIS OF PROFOUND EVENTS: REPORTING SAFE SCENARIOS

In the synthesis of profound events for the public domain, the humanistic value structure prevails. What people respond to most favorably is stories that reflect the SAFE Scenario. My experience with the escaped macaque is an example of such an humanistic PIE in a scientific setting. When asked about profound interspecies events, Jane Goodall (1994) referred me to Marc Cusano, the animal caretaker who became a member of chimpanzee society at Lion Country Safari in West Palm Beach, Florida. Cusano has volumes of SAFE and not so safe scenarios to report -- a gold mine of interactive data.

The event that Goodall (1990: 233-4) described, in which an alpha male chimp saves Cusano's life, contains all seven elements of the "ultimate PIE" (Rose, 1994a). Those elements are:

1. Initial insurmountable difficulty for the human to gain access to the animal.
2. Perseverance -- patience and faith -- by the human in pursuit of a connection.
3. Reversal of mistrust by the animal with regard to the pursuing human.
4. An arresting first contact, followed by successively closer and longer interaction.
5. Intervening forces that separate the pair, leaving one/both highly endangered.
6. Heroic acts by one/both members of the pair to reach/protect/save the other.
7. Profound shifts in perception of self/other/species by the member(s) of the pair.

A description of any one of these elements can evoke empathy for other species in a person who is reasonably open minded. A vivid report of all elements together can literally change a person's view of life.

There are scores of North American's who have traveled to Indonesia to serve as foster parents to orphan orangutans. These persons almost always go through the first four steps of the ultimate PIE. They cry when they must leave, and spend their separation fearing their "adopted children" will die in the rain forest (step 5). Some, unable to face the worst, never return. Others, often after working and sacrificing for years to scrape together funds, return and search the forest for their now grown, or possibly vanished wards (step 6). To be recognized and greeted by an orangutan friend after years apart is cement for lifelong interspecies kinship (step 7). Typically it is persons with these kinds of experience who become the backbone of grass roots wildlife conservation organizations.

Some scientists and naturalists will argue that these persons are not dealing with the full orangutan experience; that they transmit a falsely human picture of the great ape. It may backfire to hook people on the sociable young apes. As orangutans grow, the cuddly dependence vanishes. Of course these arguments are correct; the potential problems are real. But the solution is not to eliminate all human involvement with orangutan, or even to replace warm volunteers with cool professionals. Learning to relate to adult orangutans can produce even more profound and useful interspecies events, for those who have the skill, patience, and courage to meet the apes on their terms (Montgomery, 1991, p. 20-21).

There is controversy as to what those orangutan terms are, and which human terms will best describe them. Much of that controversy is driven by gender. The majority of humanistic PIEs are reported by human females. This corresponds with studies in which female researchers appeared more "fused with the monkey's lives" and better able to "feel one" with the animals they were observing (Kawai & Asquith, 1981). Humans are prone toward dichotomous perceptions of animal behavior: women bond emotionally, men relate intellectually. Blending these perceptions is crucial when we tell the tale of orangutan to a public deciding which species will survive and which will vanish from existence.

PERCEPTUAL HOT SPOTS: SEXUAL BEHAVIOR AND MALE DOMINANCE

Whether writing about PIEs or any other social phenomenon, we must be careful to use terms that will attract support from humans towards the species we are describing. Although the PIE elements are foundation for evoking empathy, they can be tainted by harsh labels and negative explanations. Careless descriptions of any primate social behavior can have destructive effects on public perceptions. Goodall's success demonstrates how tales of chimp behavior can be written so sympathetically as to attract public interest. Still, she treads a fine line reporting cases of infanticide and incidents of inter-group war (Goodall, 1990). Behaviors that arouse hostility in factions of human society must be cautiously approached. Two of these, sexual behavior and male dominance, require special artistry when writing about orangutan.

MacKinnon's (1971, 1974) and Rijksen's (1978) classifications of certain orangutan sexual behavior as "rape" are a case in point. Rijksen (1978, p. 266) capitulated that in behavior chains called rape "females usually waited for the male to approach." He hypothesized that "... contact would certainly not have been achieved, if the female really had avoided or even fled". Nadler (1981) adds the words "forcible copulation" and eventually omits use of rape, to avoid anthropomorphising (Nadler, 1988). Kaplan and Rogers (1994: 82) resurrect the term. A risky semantic tactic in the political climate of the 1990's.

As Kaplan and Rogers (1995) report in this volume, culture and era influence the meaning of things. Intolerance of human male aggressiveness has been rising steadily over recent decades, sometimes blowing up into general intolerance for men. While this may be useful for the adjustment of power imbalances in our species, there is no evidence that such an adjustment is needed among wild orangutans. To say that male orangutans practice rape makes them less endearing and more endangered. The behaviorist stricture against connotative labeling is a good first rule of public relations; it precludes careless judgment of both situation and subject by the greater audience.

Fortunately, rape doesn't fit the scientific evidence any more than it does the political climate. Galdikas (1979, 81, 84) observed what MacKinnon and Rijksen had hypothesized -- that orangutan sex in the wild is mostly civil; forcible copulation is a young adult affair. Maple (1980: 65) questions use of the rape label for captive animals. Nadler's (1982) restricted access tests with captive apes confirmed field observation that when females are given control of opportunity for contact, as is usually the case in the rain forest, the males act more like gentlemen, or "Romeos". The later term is used advisedly, since seduction is taboo in some political quarters. We could do worse however. Nadler (1981) reports that captive male orangutans use penile display to attract estrous females, a wild behavior Schurmann (1981) calls "male presenting." If one wanted to cast negative aspersions, one might use the term "flashing" -- a reprehensible behavior in most human societies. It seems foolish to project the human concept of flashing on male orangutan presenting. Such behavior in humans is a perversion, not a seduction.

But then, so is rape a human perversion. To consider forcible copulation a perversion in wild orangutan may also be foolish. Perhaps it is a seduction. Or an exercise of youthful male libido that the females tolerate, bothersome but harmless, even necessary for otherwise isolated young males and females to learn the social and physical etiquette -- a kind of practice courting and consortship. The female stops struggling. She doesn't cry or scream in pain; she rarely holds a grudge. Eventually those young males grow up and become the proper responsive adults that are chosen by these same females to father their children. Remember, we are talking about orangutans here -- not humans.

Mental scheming about the meaning of forcible copulation among humans goes on in people's minds as they form their attitudes about the orangutan. Rapists are criminals in human society. Repeated rapists are jailed and even sterilized in parts of the world. Nature conservancies will have a hard time soliciting money to buy rain forest reserves for primate felons. It may serve certain human causes to declare that young orangutan males commit rape, but it doesn't serve orangutan or science.

Related to the treatment of primate sexual behavior is the issue of political dominance. Adult male orangutans are bigger, stronger, and more obviously aggressive. They seem dominant, to most human observers. Is this because they dominate the scene when they come on stage, attracting human attention with their impressive hulk and bravado? Or do they truly dominate and control most aspects of the mostly solitary lives of all orangutans in "their territory"? Cusano (1995) reports that life inside chimpanzee society involves ever shifting relations among members, governed as much by situation as by strength, sex, and seniority. If we could roam the canopies of Ketembe and Tanjung Puting for a few years, interacting with orangutan on their terms, we might tell a less simplistic tale.

The metaphors we use with orangutans will be confounded by human connotations. Feminists have argued that human male dominance achieves male success in areas where it is not warranted by need, intelligence, sensitivity, etc. Winning by force or intimidation is a poor tactic; one that doesn't lead to the best results for individuals, communities, or humanity. Most people dislike socially dominant "bullies." To open orangutan to this dislike should be done with great care. Wild orangutan spend over 95% of their waking hours in peaceful pursuits (Rodman, 1988). Behaviorally, competition is implied far more than observed, and conflict is rare. While certain males may be more inclined to coerce access to food and favors when they come across females, most live and interact in cooperative harmony. When two males meet, chances are they will pass quietly; not fight, not even exchange challenges. The fact that captive apes in cages and compounds become aggressive and sexually coercive, or morose and depressed, may be more relevant to penology than to primatology.

Primatologists, like most humans, focus on the occasional acts of aggression because they attract attention, are exciting and memorable, and make vivid story. Western society favors attacking destructive symptoms, rather than reinforcing constructive etiologies. Money and time spent on curing illness and punishing crime far outstrips preventive measures, aggression research is financed more than altruism research, and primate society is described in terms of macho and Machiavellian politics, not collaboration and friendship. It's O.K. to study these behaviors, but dangerous to escalate the importance of the results with dramatic metaphor or excessive generalization. This escalation is akin to the posture promoted by modern journalism -- we learn a lot about dramatic and rare behavior on the six o'clock news. That's what attracts TV audiences. That's what sells books. That's what wins research grants. That's what builds fame. For natural scientists, this popular penchant has grave effects: it promotes false negative perceptions of the animals we study, develops perceptual adaptation levels that make normal behavior seem vapid and uninteresting, and inclines us to see violence where it's not. It must be resisted.

Galdikas (1995, p. 356) likens the adult male orangutans to Sumo wrestlers preparing for "the few championship bouts that will determine whether their genetic identity will live or die." This metaphor is more sympathetic than sexual dominance. It puts a positive spin on the not-so-pretty selfish gene theory. But there's more we can do. Orangutan and human have evolved in natural ecosystems and survive in captivity as species and individuals that are mostly cooperative, sexually considerate, and peace-seeking. We must promote these positive images, not only because they are closer to truth, but also because as metaphor they are likely to engender positive affiliation of humankind with our primate kin.

A STRATEGY FOR CHANGING COLLECTIVE REALITY: ER/LC

Necessary to the promotion of public perceptions of orangutan that will attract support for primate research and conservation is the development of practical strategies and tactics for changing collective reality. In the preceding section we considered problems created by presenting potentially negative realities to the public. Controversial issues like sexual behavior and political dominance require more than an "every primatologist for himself" approach. If we overlay our professional and personal biases on the data, or study only the data that fits our biases, then we get what we deserve -- personal satisfaction and professional conflict. That may be OK for thriving humans, but it's not OK for the threatened orangutan. We must overcome self-centered focus -- sublimate self-image for the sake of orangutan-image, so the higher good can be achieved. Orangutan survival won't abide divisiveness and conflict among jealous and antagonistic power and fame seekers, any more than it does the costly corporate competition for market share among environmental charities. Rijksen's fatigue with no-action-talk-only (NATO) calls for a practical acronym to correct the situation. It's time for the ER/LC solution -- Everybody's Right, Let's Cooperate.

As stated at the outset of this treatise, our perceptions are truly what we see inside our unique minds. Everybody's right about their perceptions. And since we are talking here about managing human perceptions for the good of orangutan, we can use all viewpoints. That's what a collective reality is -- a collection of everybody's realities into an amalgam that works for the greater good. Let's take orangutan rehabilitation, for example -- a hotbed of controversy. The clinical practitioners are right -- "primate prisoners need socialization, orphans need parenting, refugees need economic aid and community building ... in all cultural contexts, for all social animals "(Bowman, 1994). The experimental scientists are right -- we must minimize adverse human impact on orangutans we rehabilitate, and assure that they don't adversely effect their counterparts in the wild. The field naturalists are right -- "the worst thing that can happen ... that will take millions of years to correct is the loss of genetic and species diversity by the destruction of natural habitats" (Wilson, 1994, p. 355). From the individual orangutan to the ecosystem, all must be accommodated, all protected, all revered. Rijksen (1995) is right -- "survival of the orangutan should not be seen as someone's project ... it is a common moral obligation which should not be attributed to any individual or organization ... what really counts is what is going to happen."

This is not the time to neglect the orangutan, nor is it time to stop talking. Rather it is time to start talking collectively, to affirm one another's perceptions, and take action to vastly expand public support for orangutan research, care, and protection. The next International Orangutan Conference should be driven by the ER/LC principle. Interdisciplinary symposia should be organized to achieve consensus in crucial and controversial areas of science, clinical practice, and conservation.

Each consensus must have four elements: 1) an all inclusive mosaic of current "scientific truths", 2) optimal public perceptions to be induced by these truths, 3) cooperative methods whereby these truths and perceptions will be transformed into actions, and 4) mechanisms for assuring that actions have positive effects on our main targets -- the public, the orangutans, and the rain forests. It is important to note that steps 1 and 2 are necessary but not sufficient. In essence, they are all talk. But they are essential prelude to successful lasting cooperative action -- steps three and four. This kind of interdisciplinary project is not new. The author has used it to launch long-term action-research programs in military, forestry, and health care organizations (Rose, 1973, 1976, 1984; Stebbins et al, 1982). Basic to the use of such strategies among primatologists and others concerned about the future of the orangutan is our willingness to set aside prejudices and agree to cooperate with one another in the creation of collective realities to enhance the public's sense of kinship with and support for orangutan and their rain forest habitat.

CONCLUSIONS

As scientists, we can cite countless ways that our species is positively linked to the orangutan. As humanists, we can report interactions with orangutans that profoundly affect our kinship with them. As naturalists, we can portray the orangutan as perhaps the most sublime and sympathetic metaphor of our order. As primatologists, we can accept the fact that if we don't pull together to improve the lot of orangutans wherever they live, they will one day live no more.

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