Social evolution and social influence: selfishness, deception, self-deception

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Paper for

Psychology 222B: Social Power

and

Anthropology 229C: Human Ethology

Running Head: Social Power, Evolution and Deception

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II. RATIONALITY, CONSCIOUSNESS, SINCERITY

A. Unconsciousness and irrationality: the myth of rationality

The model of the human as a "naive scientist", a rational decision maker prevailed in Social Psychology for several years after cognitive psychologists had proved it wrong by demonstrating a myriad of biases (Kahnemann, Slovic & Tversky, 1982). The notion that we are basically rational beings still predominates intuitive and popular thinking, in spite of proof to the contrary (Taylor, 1989, Taylor and Brown, 1988, Nisbett and Ross, 1980).

Men tend to value a car more if it is introduced in the presence of an attractive woman, and we all tend to vote for the taller and more attractive political candidate (Cialdini, 1993, p.140), and are fonder of people and things presented to us while eating (Razran, 1938, 1940; cited in Cialdini, 1993, p. 158). In these and similar cases, the targets of influence, full of honest conviction, vehemently deny having been influenced by such irrelevant factors.

In spite of numerous findings to the contrary, the myth of human rationality and consciousness continues to pervade our thinking and our literature. It was difficult for authors like Ury (1993) to overcome these ideas: "Because what I learned at Harvard Law School is that all that counts in life are the facts- who's right and who's wrong. It's taken me twenty-five years to learn that just as important as the facts, if not more important, are people's perception of those facts" (p. 18). He concludes that "humans are reaction machines" (p. 8). Pushing will make them more resistant. Indirect actions are needed. "It requires you to do the opposite of what you naturally feel like doing in difficult situations" (p. 10).

B. Deception: the myth of sincerity

Making the target of social influence falsely believe we are not trying to push him satisfies intuitive as well as formal definitions (see Mitchell, 1986) of deception. Only on rare occasions do authors dare to call manipulative influencing strategies deception: "Many ploys depend on your not knowing what is being done to you. . . . If you don't realize that he is using his partner as a "bad guy", you may agree innocently to the changes" (Ury, 1993, p. 42). But, generally, the myth of human sincerity prevails.

"The more common everyday self-presenter who wants others to perceive, validate, and be influenced by his selfless integrity, even though he might vigorously deny such motivation and, indeed, be unaware of it" (Jones and Pittman, 1982, p. 246). "A tantalizing conspiracy of cognitive avoidance is common to the actor and his target. the actor does not wish to see himself as ingratiating; the target wants also to believe that the ingratiator is sincere" (p. 236).

I believe that self presentational concerns and preoccupation with saving other people's face prevent us from seeing the pervasiveness of deception. Furthermore, our egocentrism provides us with the wrong model of human behavior. Intuitively, we seem to think that human biology and social dispositions made us apt to be rational scholars in a just and free society. Evolutionary theorists point out that our phylogenesis should have provided us with very different dispositions. Their most extreme proponent, R. D. Alexander states that "human society is a network of lies and deception, persisting only

because systems of conventions about permissible kinds and extents of lying have arisen" (1975, p. 96). Lazarus (1979, p. 47) notes that there is a "collective illusion that our society is free, moral, and just"

Evolutionary theory can causally explain why humans tend to deceive themselves and others about the fact that they are deceiving. It can tie together all the topics of this paper: deception, irrationality in human impression management and social influence techniques. It can elucidate why we are willing to pay such a high cost for impression management. Jones and Pittman (1982) state this last point very candidly: "For many of us, self-promotion is almost a full-time job."

C. Hypotheses of this paper: an overview

This paper endeavors to point out that the selfish interests of individuals caused deception and countermeasures against deception to become driving forces behind social influence strategies. The expensive and wasteful nature of negotiation and impression management is a necessary and unavoidable consequence of this arms race between deception and detection. Natural selection created genetic dispositions to deceive, and to constantly and unconsciously suspect deception attempts. In a competitive, selfish, and war-prone world, these techniques, proven in billions of years in evolution, still are optimal. Therefore they are reinforced by cultural selection and learning. Conscious awareness of deception and countermeasures is not required, often even counterproductive. This is so because conscious deception is easier to detect and carries harsher sanctions. Humans not only deceive, but also deceive

themselves and others about the fact that they deceive, into believing that they do not deceive. This double deception makes the system so watertight, that it tends to evade detection even by psychologists.

III. EVOLUTIONARY THEORY

A. Ultimate reasons

Due to the failure of prior grand theories, psychologists tend to satisfy themselves with micro-theories, that describe only a narrow domain. The tend to equate description or prediction with explanation. Don MacKay (1993) deplores these limitations and suggests that a true theory should be "explanatory, not just descriptive." He complains that "miniature models have only proliferated rather than merged" into "ever larger theories." In his proposed rational epistemology, "observations often do not count as scientific facts until a plausible theoretical mechanism for explaining them is proposed" (MacKay, 1988).

Nobel prize winner Tinbergen (1963) distinguishes between proximate explanations (how physiology or behavior work) and ultimate explanations (why they work this way). Even if every single cognitive process and every single neuron connection were known, the question remains, why the organism is the way it is.

Ultimate explanations historically were the domain of religions and myths. To my knowledge, evolutionary theory is the only scientific theory that plausibly proposes ultimate explanations.

B. The survival of the fittest

Charles Darwin (1859) established the theory of evolution. This theory suggests that those species and individuals that are best equipped for survival and procreation survive. Genes that determine or mediate a behavior proliferate, if the behavior helps survival, mate finding, and finally creation of viable offspring that will have offspring of its own.

This theory could not explain altruistic behavior. Altruism is defined as behavior that gives (reproductive) advantage to another individual at some (reproductive) cost to the altruist. To solve the riddle of altruism, it was proposed that individuals act for the best interests of their group or species.

This "group selection fallacy" is still often invoked, even though it was soundly disproved (see chapter 4 of Trivers, 1985). A group of altruists would not be evolutionarily stable. A single individual without the altruistic "group benefit gene" would reap the benefit of the other individuals' altruism without paying the price for his of her own altruism. And a gene that brings about a mere 1% higher number of offspring, will, by exponential growth, crowd out competing alleles and be the dominant gene within five hundred generations. Therefore, the altruists would be extinguished and selfish individuals would take over.

C. Inclusive fitness and altruism: the selfish gene

W. D. Hamilton solved the puzzle of how altruism could possibly have developed and survived. He recalls that close relatives, like brothers, parents, sons and daughters have 50% of their genes in common with us. Therefore, a sacrifice that gives more than twice as much benefit to our brother than it costs us, has an indirect net reproductive benefit to our genes, via our relative's offspring.

The reproductive success that accounts for both direct and indirect (via relatives) reproduction is called "inclusive fitness". Maximization of inclusive fitness "means that an organism behaves over a lifetime in such a way as to maximize the copies of its genes, or alleles, which by one route or another it projects into the gene pools of future generations" (Irons, 1991). It explains altruistic behavior of bees and ants, as well as human altruism towards kin and human nepotism. One theorist said, jokingly: "I would not give my life for my brother, but maybe for 3 brothers or 9 cousins."S. Haldane, see p 30 Daly Wilson sex evolution and behavior)

Reciprocal altruism is another way how altruism can bring about a reproductive advantage. If we can be sufficiently sure that a favor will be returned to us, a temporary sacrifice can be to our own long term advantage. This seems to be so strongly built into human genes (or culture?) that Raven (1992) calls the reciprocity norm a legitimate power basis, that tends to be willingly accepted by the obliged person. It is so strong, that people used to feel obliged to donate to Krishna solicitors who had given them an unsolicited flower as a present. (Cialdini, 1993, p. 21).

Equally, the door-in-the-face or rejection-then-retreat technique (Cialdini, 1993, p. 36), which involves a large request and then a retreat to a smaller request, makes the recipient of the request feel obliged to retreat, too. He gives in to the smaller demand he would not have given in to, had he been asked directly. These phenomena are often (proximately) described but rarely (ultimately) explained.

For the reciprocity rule to be maintained, punishment for non-compliance is a must, to avoid invasion by cheaters. "The fitness of the reciprocator must be greater than the fitness of the cheater" (Kaplan, 1987). And, the fitness of the punisher must be at least as great as the fitness of the non-punisher, because otherwise nobody would take the altruistic task of spending energy to punish noncompliant people, at a personal cost and for the benefit of the society. Righteous moralizing indignation seems to be one of the elements that mediate distribution of punishment. I believe mob lynching behavior is one such way of punishing perceived deviants at low cost to the individual involved.

Once compliance with the reciprocity norm has become automatic, it, works, unexpectedly, even with Krishna solicitors who cannot punish a non-reciprocator. But, the arms race between influencer and influencee continues, on a non-genetic or learning basis. Over the years, most Americans have become immune to the Hare Krishna adepts' tactics. The same tactics, though, are said to be very successful with still inexperienced and unsuspecting Russians.

If selfish desire to gain personal advantage through reciprocity is one major reason for altruistic behavior (the other reason is reputation, which also pays in the long run (Irons, 1991)), we would predict altruism to be stronger towards people that we expect will return the favor. Essock, McGuire and Hooper (1988) at UCLA studied self reported helping patterns of 300 Los Angeles women. They concluded that "help was distributed neither randomly nor altruistically, but in a strategic manner which, however (un)consciously, favored the biological goals of survival and reproduction." For example, rich

relatives received more help than poor ones. Poor people may need more help but it is advantageous to help rich relatives who have more means to reciprocate.

Additionally, the authors report: "Subjects were significantly more likely to report that they had given help than that they had received help." In random samples we should expect equal amount of helping and receiving. Therefore, impression management and/or self deception were at work. The authors explained the value of deception and self deception in impression management: "All else being equal, the individual who successfully masquerades as an altruistic, beneficent person would be more likely to attract a mate and friends than one who displays his or her selfishness unmasked. Likewise, the individual convinced of his or her own beneficence has a greater chance of convincing others than the individual who, with false conviction, attempts to deceive." This strategy is optimal both in today's civilization and in past evolutionary times. Of course, everyone is, necessarily, convinced that he does not use this self and other-deceptive behavior.

D. Validity of evolutionary theory for humans

The entire book by Trivers (1985) demonstrates the extremely strong empirical support evolutionary hypotheses have in biological sciences. Its application to humans finds strong resistance in social sciences. The reason, I think, is emotional. Partially, this is due to the fact that sociobiology has historically been abused for conservative political purposes, as defense of the status quo, of the survival of the powerful in society at the cost of the poor. This politically motivated abuse was based on misunderstanding, first because

evolutionary biologists describe natural laws but not moral imperatives, and second, because the poor tend to have lots of viable offspring and therefore may even have superior fitness.

The only legitimate reason to reject the theory would be the contention that human behavior is totally independent of genetics, a position that is being disproved by twin research at the University of Minnesota (Bouchard & McGue, 1981, and Segal, 1984, cited in Shaw & Wong, 1989, p. 37).

Evolutionary theory contends that humans have changed very little over the last hundred thousand years. "Thus, paleoanthropology, studies of free-living primates and modern hunter-gatherer societies are important sources of information about personality dynamics" (Hogan, 1982). Some behavior, like preference for fat and sweet food, is very adaptive in a society without overabundant food supply, but is harmful in our affluent supermarket society. Other behavior patterns were useful then and still are useful now. Finally, humans have built in flexibility that often optimally adapts to new situations.

E. The influence of group living

Historically, people always lived in groups. First, a "selfish group" confers advantages against predators: a hawk can only kill one bird at a time, so it is safer to be among 50 conspecifics than to be alone. Second, the group is more likely to detect the hawk's approach and to escape unharmed. Third, groups of primates and humans can fend off predators. Finally, groups of men can hunt large animals. In addition to the obvious nutritional benefits, the possession and

distribution of large amounts of meat proffers social power. It increases a male's chances to gain sexual favors from females, similarly as today's dinner date.

"The behavior of other pack-hunting animals (e.g. lions, wolves, hyenas), along with evidence of ritualized burial practices at least 50,000 years ago, suggests that hominid social life has been carefully structured (i.e. rule governed) from the beginning. . . . Every group is organized in terms of status hierarchy. This suggests that the two most important problems in life concern attaining status and popularity" (Hogan, 1982). Status provides "opportunity for preferential breeding and reproductive success". Because "homicide rates among hunter-gatherers are high even by modern urban standards ... , popularity has substantial survival value." This explains a powerful drive for social approval and avoidance of disapproval and criticism. It also explains personal coercive and personal reward power, the power of approval or rejection by someone we value or like (Raven, 1992), in other words, of a potential ally. In monkey groups, an allied pair can gain enormous advantages by dominating an entire group or it can defend females against more dominant individuals. The stronger one of the pair usually has to respect the weaker monkey's sensitivities; he forfeits the use of coercive power against the ally and does not take his bananas by force (de Waal, 1987, p. 429).

Shaw and Wong (1989, p. 53) suggest, that weapons development caused a major shift in human evolution. The development of arms reduced the cost of attacking (weapons can even be thrown) while increasing the cost of being attacked. The "new high costs of within-group aggression would act to change the character of the dominance system. Insofar as dominant individuals could not

afford to be injured in rank-order fighting, there would be an increased selection for social skills in attaining and maintaining status, and decreased emphasis on overt aggression. . . . intergroup conflict would select for greatly increased human capacity to establish and accept group hierarchy as well as to recognize enemies versus relatives and friends." Thus, in negotiations, it is all important to be categorized by the other party as a friend (i.e., a reciprocal altruist), not as a (totally selfish) enemy. Ury (1993, p. 53) suggests that "stepping on their side" is an essential step in "getting past no." If the target of influence rates us as inimical, we lose all the subtle power bases that alliance sensitivities bring with them.

F. War and intergroup violence: group selection revisited

Humans found an additional selection factor that is rarely found in primates: tribal raids and war. Entire villages and populations could be exterminated by their neighbors. Group extermination is one obvious exception, where group selection can occur. It is not very costly to have unwarranted suspicion of outgroups a hundred times, but one single instance of unwarranted trust may spell annihilation of the individual or even the tribe. A group that is less aggressive and less suspicious of out-groups is more likely to be eradicated. So is a group that splits up easily and cannot maintain a large size.

In an evolutionary perspective, group size increased over time. The small kin-groups that stayed together for protection against predators and to hunt large animals fused into larger groups, "largely or entirely because of the threat of other, similar nearby groups of humans" (Shaw and Wong, 1987, p. 54). This

required the social and cultural organization necessary to hold larger groups together.

"The more the brain evolved and the more intelligence was utilized to insure within-group solidarity, including the sharing of information, the more the group would likely have succeeded in driving competing groups into less desirable peripheral areas. . . . successful human groups may have been the selective forces which pushed less intelligently cooperative groups into inhospitable habitats, severely lessening their chances of contributing to the genetic future of the species" (Shaw and Wong, 1987, p. 58).

In my opinion, humans differ from animals in that group selection factors come back into play. There is an exquisite balance between individual selfishness against other members of the ingroup and cooperation against the outgroup. It seems that the enmity and threats from outgroups increase ingroup cohesion. From the inclusive fitness maximization standpoint this makes sense. If there is no outside threat, then individual selfishness against other members of the ingroup should be the best strategy. If survival of the entire group is threatened, then, obviously, ingroup cohesion and ingroup selfishness is in the best interest of the individual. I believe that rituals, beliefs and religions are pervasive factors in all human groups, because groups without this bond would have been dispersed and exterminated. This is especially noteworthy because virtually every human society has a religion its members truly believe in while they laughing off all other religions as ridiculous, absurd and false. Simple logic

can show that at least 80% of the world's population have false religious beliefs[1]. I assume that a mixture of cultural transmission and genetic propensity maintain these cultural artifacts.

G. Learning and culture

Genetic change is very slow, it takes many generations, or even millions of years. Therefore we would expect adaptations to the more "recent" changes of the last 50,000 years to be based on learning and cultural transmission.

But even the "process of learning itself is often controlled by instinct", "various animals are smart in the ways natural selection has favored and stupid where their life-style does not require a customized learning program. The human species is similarly smart in its own adaptive ways and almost embarrassingly stupid in others" (Gould and Marler, 1987, cited in Shaw & Wong, 1989, p. 70). "Innate tendencies in mental development are most obvious (and least disputed) in humanity's capacity for learning language and culture, but they are also evident in the manifestation of phobias or tendencies to lean toward certain choices over others" (Shaw & Wong, 1989, p. 67). We humans are blissfully unaware that we are driven to behave in ways that maximize inclusive fitness. Because of the advantages of unawareness of our own deceptive tactics and of our suspicion, I suggest that innate tendencies made us "embarrassingly stupid" as far as conscious awareness of these facts is concerned.

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1 Proof: If no religion is right then obviously all people have a false religion. If one is right, than it is right about its contention that all other religions are false, hence at least 70 % of the world's population has incorrect beliefs. More than one major religion cannot be right, because most religions imply that all others are wrong.

Opponents of genetic theories often confuse genetic propensities for genetic determinism. This is a misunderstanding. People can learn to avoid fatty food counter to their genetic programming. Even birds adapt the number of eggs they lay to the environmental conditions. Even the staunchest plant geneticist is well aware that peas grow much taller when planted in fertile soil than their genetically identical brothers and sisters who received inferior nurturing on bad soil.

IV. DECEPTION AND IMPRESSION MANAGEMENT

A. Deception

Evolutionary theory predicts the inherent selfishness of the individual. Therefore, we would not expect communication to develop as a means of informing others of the truth, if such truth gives the recipient an advantage at the expense of the sender. Cronk (1991) suggests to "follow the example of animal behavior studies in seeing communication more as a means to manipulate others than as a means to inform them". In other words, most communication serves for the purpose of social influence, defined as "change in one person's beliefs, attitudes, behavior, or emotions brought about by some other person or persons" (Raven, 1983, p. 8).

Evolution produced deceptive mechanisms frequently. Mitchell (1986) lists four levels of deception. Level one is permanent appearance, for example a butterfly whose tail looks like a head, so it can escape when a bird attacks its tail thinking it is its head, or animals that look like wasps or other impalatable species.

Level two is coordinated action. Examples are fireflies who mimic the mating flashes of the female of another firefly species in order to prey on the males. It also includes bird's injury feigning in order to distract predators from their nest. Level three involves learning: a dog who feigns injury because he has been petted more when he had a broken leg. Deceit may depend on the deceived organism's learning, too: a blue jay learns to avoid a palatable butterfly after experiencing the nausea of eating the similar looking distasteful one. Level 4 involves planning: a chimp who misleads about the location of food or a human who lies on purpose.

This demonstrates that deceit as an influence strategy is neither new nor a human invention. Second, it is likely that humans employ strategies as low as level two (body language signals of strength or submission) or maybe even level one (immature and baby-like facial features in an adult).

B. Countermeasures against influence and deception

Of course, evolution also favored the capacity to detect deception, because someone who is not easily deceived has higher inclusive fitness. "Deceit selects for efficient mind-readers." "Bluff by signalers can be countered in a variety of ways and if honest signals are costly they may be impossible to mimic" (Harper, 1992).

In interpersonal influence, elaborate stage setting techniques are often applied (Raven, 1992). My interpretation of this is that to avoid bluff it is often necessary to demonstrate that one has the means for the use of power. Coercive power, for example, requires the agent to show not only that he has the means, but

also the determination and ruthlessness to carry out his threat. Street gang toughs need to rough up innocents to gain respect of their peers. And Adolf Hitler went into maniacal fits to convince the Austrian chancellor von Schuschnigg he had the resolve to commit crazy acts of violence and thus coerced him to give in to his demands (Raven, 1986).

Of course, the next step in the arms race are counter-countermeasures: how to deceive without being caught. It is not a good strategy to honestly admit that we are not truthful. Rather it is more useful that we deny our lies, deceive about the fact that we are deceiving. This way we can reap the benefits of a good reputation: according to Anderson (1968b, cited in Sears et al, 1991, p. 270) the most liked personality traits are sincere, honest, understanding, loyal, truthful. The authors of the book do not note the absurdity of the result and the apparent deceptiveness and self deception of the respondents. Imagine the husband or boyfriend of a sincerity-loving respondent to Anderson's questionnaire telling her about his attraction to other women: "Honey, I really enjoyed my visit to the strip joint". Or picture her son telling her about his drug habits or the hate he feels for her. I am certain their honesty would not be greeted with high praise. Her love for honesty is quite limited, it is another self deception. In other words, the appropriate tactic is not being actually honest as the naive and misguided individuals in the above examples. Rather, the best strategy is to <u>appear</u> honest. But who would admit he likes people who <u>appear</u> honest?

My contention that deceit and self deception are the rule sounds so provocative, because we have large investments to camouflage deception. But

social psychology research sometimes confirms this unflattering picture: The textbook by the UCLA professors Sears, Peplau and Taylor (1991, p. 224) states that "the most influential perspective on social interaction is social exchange theory". This theory proposes that we are "attracted to those partners we think are best able to reward us" and "try to arrange our interactions to maximize our own rewards". Again, unawareness, deception and self deception are quite obvious. I have never met a person who told me he likes to be my friend because he thinks I am best able to reward him.

In summary, we should expect a good strategists to strive to maintain an image of being a truthful person. He or she should be prepared to deceive whenever it confers a sizable advantage versus a much smaller risk.

C. Self deception

If we believe our own lies it is much more difficult to be caught, because we are not making conscious efforts to lie. Furthermore, moral codes and laws punish the conscious lie much more stringently than the "honest" error.

Gur and Sackheim (1979) defined self deception as the motivated unawareness of one of two conflicting cognitions. They required that (i) the individual holds two contradictory beliefs (p and not-p) (ii) these beliefs are held simultaneously (iii) the individual is not aware of holding one of the beliefs (for example p) and (iv) the mental operation that determines which mental content is and which is not subject to awareness is motivated.

They managed to prove the existence of self deception even according to these stringent requirements. It surprises me that knowledge of the repressed

truth (not p) remains stored somewhere in the brain. Jokes who induce laughter by alluding to taboos seem to tap into these secret memories. Maybe there is a fitness advantage to having access to the truth. Maybe the truth is required in some emergency situations.

Paulhus (1986) introduces a less restricted definition of self-deception in a more general sense. He termed it auto-illusion: an honest belief in a false characterization of the self, due to cognitive or informational biases. This term is probably more useful, as self-deception in the most stringent sense has been shown in only two studies (Gur & Sackheim, 1979; Sackheim, 1983, cited in Paulhus, 1986).

Paulhus (1986) shows the relationship between self deception and various other constructs: "The SDQ [Self Deception Questionnaire] is highly negatively correlated with standard measures of psychopathology, including Beck's Depression Inventory and the Manifest Anxiety Scale." This counterintuitive result supports the evolutionary hypothesis, that high self deception is natural. I propose that people low on self deception are at such a disadvantage in social life that this increases their anxiety levels. Alternatively, low self deception may be a part of psychopathological personality patterns.

Factor analyses show that social desirability scales diverge into two factors, into self-deception or "autistic bias" and impression management or "propagandistic bias" (Paulhus, 1986).

D. The cost of impression management

It is quite surprising to me, that rarely an author on impression management and social power ponders about the cost issue. I don't just talk about the cost of maintaining an army or of waging war (coercive power or defense against coercive power). I am concerned about people wearing Armani suits in a tropical climate with ties strangling our throats, when a four dollar thrift shop outfit would be more comfortable and appropriate to the climate. It is obviously wasteful to drive an expensive 50,000.- dollar car, when a bicycle or simple 2,000.- dollar car would do. But, a high powered real estate broker would undermine his power would he dare to drive a 1983 Ford Pinto or come to a board meeting dressed in bicycling shorts. It is important to note that price, not age or functionality of the car count, because he or she could get away with driving an antique 1935 Ford.

The time and money spent for this impression management could be used to directly increase inclusive fitness by increasing the number or the quality of offspring.

Ury (1993, p. 111) states that "negotiation is not just a technical problem-solving exercise but a political process in which the different parties must participate and craft an agreement <u>together</u>. The process is just as important as the product. . . . negotiation is a ritual". In other words, It takes 3 months of negotiations, strikes, lockouts etc. to arrive at an agreement of, say, 5.1% wage increase, a result that could have been reached in 5 minutes.

I propose that deception avoidance is one of the main reasons for this drawn out and expensive process. Participation is an good strategy to minimize the chance of being deceived.

Jones and Pittman, (1982) contend that the "trappings of power" reassure the client that the professional knows what he is doing. If he were incompetent, he could hardly afford a Lear Jet or a traveling secretary. "For many of us, self-promotion is almost a full-time job", he concludes.

These aspects of intra-species competition can be found in animals. Deers carry the dead weight of elaborate antlers. The peacock's long tails and the stickleback's brilliant colors, as well as the songs of birds make these animals more prone to be preyed upon. Evolutionary biologists think that expensive signals are more difficult to be falsified. So the fact that they are wasteful and expensive makes them more credible. Zahavi (1975) goes even further, he suggests that the fact that an individual survived in spite of the unwieldy tail is a signal of his superior qualities. "To avoid deception, females choose on the basis of characteristics that second-rate males are incapable of faking, and that would seem to mean characteristics that cannot be produced cheaply" (Daly & Wilson, p. 133). A second-rate deer cannot survive with enormous antlers, and a second-rate lawyer cannot afford a Lear Jet.

False advertising, when detected, may cause problems for the impostor. The more dark feathers a Harris's sparrow has in his winter plumage, the higher his rank in the dominance hierarchy. S. Rohwer (cited in Daly & Wilson, p. 133) asked why low ranking birds do not lie. He painted low ranking males' feathers dark. "The dominance hierarchy is generally maintained without much overt

aggression, but the relative rank of birds of similar status is occasionally tested. And when advertising is then revealed to be false, the aggression persists and intensifies. Honesty seems to be the best policy for a Harris's sparrow" (Daly & Wilson, p. 133). Among humans, a homeless person with an impeccable custom-made suit or a martial arts dud with a black belt around his waist, would probably share the same fate: initially undeserved respect, later, when the bluff is detected, strong aggression.

There are several factors which render these strategies stable and self perpetuating in spite of their cost. For example, if all birds of a species raise their feathers in order to appear 30% heavier and more intimidating, a lone individual cannot simply step out of the routine. He would be underestimated and would have to waste energy fighting adversaries who would usually give in voluntarily. Similarly, if every successful professional buys the most expensive car he can possibly afford on credit, the rare corporate executive who would buy a plain car would be underestimated by everyone.

An "intelligent" female peacock who would wisely choose a capable mate that does not have the impediment of a long tail, would father sons that are unattractive to other females and hence reduce her own reproductive success.

Successful sons are especially important because males usually have more variance in reproductive success. Therefore, high ranking sons confer more reproductive success than high ranking daughters, while low ranking daughters confer more reproductive success than low ranking males. Surprisingly, statistics show that even in humans the sex ratio varies with socioeconomic status. In the

United States, in the lowest socioeconomic groups 96 males are born for every 100 female babies, in the highest about 104 males per 100 females (Teitelbaum & Mantel, 1971, cited in Trivers, 1985, p. 298).

E. The cost of courtship

"Animals - including humans- spend an inordinate amount of time getting ready to have sex. Something that could be achieved by mutual agreement in a minute or two is commonly drawn out into hours, days, even weeks of assiduous pursuit, comical misadventure, and brain-numbing stress. In a word: courtship" (LeVay, 1993, p. 57). Due to the fact that fathering is cheap because one male can fertilize a large number of females, females have acquired the power to choose a mate among a large number of male suitors. In using this power they tend to choose a male who has qualities that improve the chance of survival of the offspring, either one who provides "good genes" (the football star) or who promises to be a "good fathers" (the reliable husband) who invest in the raising of the offspring. Female choice actually produces superior offspring- at least in fruit flies. Experiments have shown that female fruit flies that had the chance to pick among several males have fitter offspring than females in the no-choice condition (Daly & Wilson, 1983, p. 131).

It is well known that human males tend to be deceptive about their reliability as long term fathers, and both sexes tend to deceive about their faithfulness. Similarly, in animals "we may see very costly signals and very cautious receivers. Courtship displays are often remarkable for the ridiculous contortions of males and the apparent indifference of females" (Harper, 1992). I

suggest that the large expense of time in courtship is due to the arms race between deception and attempts to foil deception.

Actually, sexual reproduction itself seems wasteful. Males of most species are almost useless, they provide only sperm. Females who could reproduce genetically identical copies of themselves by simple cell division would easily outreproduce sexually reproducing females. A sexually reproducing couple needs an average of two surviving and reproducing offspring to keep the number of members of the species constant. With non-sexual reproduction, two offspring per mother means doubling the population size with every generation, increasing population size 128-fold in 7 generations. Researchers of the few asexually reproducing species arrived at the consensus, that parasites would quickly decimate the asexually produced identical. The wasteful effort of sexual reproduction provides needed genetic variety to resist disease and survive in ever changing environments (Trivers pp. 315-330)[2].

F. Unconsciousness

Of course, mem are not aware of all these biological considerations when he courts a woman, and women don't know the evolutionary reasons for their choice criteria. As I said, consciousness is not required for an evolutionary mechanism to function. In fact, the amount of non-verbal body language transpiring in social interaction exceeds the processing capacity of our conscious

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2 It seems to me, that the most advantageous system would consist of individuals having both sexes, but who do not fertilize themselves. In this case we would have the advantages of sexual reproduction, but the "males" who did the fertilization could also raise offspring as they are also "females". Nature did not invent this, therefore my logic must be wrong. Maybe these two gender individuals could not compete with normal one gender males?

mind (see Moscovici, 1992, 1981). Nature did not create any species that consciously pursues the strategy of inclusive fitness maximization and calculates which actions are most apt to achieve this goal. Rather our instincts and feelings tend to lead us in this direction unknowingly (Hogan, 1982).

V. SOME ASPECTS OF RAVEN'S POWER INTERACTION MODEL UNDER AN EVOLUTIONARY POINT OF VIEW

A. Motivation: Why social influence

Millions of years of evolutionary arms race have developed optimized and sophisticated influence techniques and counterinfluence techniques. They are be optimized for primitive circumstances of hunter-gatherer society. Due to the flexibility of the human brain, we continually develop new techniques based on culture and learning (= software) and not on genetics (hardware). These techniques are usually optimal for the purpose of inclusive fitness, especially for avoidance of extinction of the tribe due to war and assault.

I surmise that it is hard to find new influencing tactics that cannot be found in some other species. Evolution tends to find all possible strategies in order to occupy diverse ecological niches. The capacity of the human brain should allow for a great variety of techniques to be used flexibly by one single individual. I also allows to elevate the complexity and flexibility of the strategies to a height that simpler organisms are not able to. Some theorists (Tooby & Cosmides, 1992) think that our brain grew more capable because this way we would be more efficient at detecting cheaters and deceivers.

Why would one want to use social influence? Raven (1992) describes reasons like need for power and dominance, for status, role requirements, desire to adhere to social norms, concern for image, and desire for attaining extrinsic goals. It is intuitively clear how all these motivations serve inclusive fitness and hence are consistent with the model described so far. Additional motives, cited by Raven (1992), are attaining of extrinsic goals or desire to benefit or harm target. These motives usually tend to be in the service of inclusive fitness, too.

Raven's model also deals with the question of why would one let oneself be influenced or why would one resist. "Needs for independence, for power, for self esteem, may mitigate against influence, and may indeed lead to reactance" (Raven, 1992). The evolutionary model would predict people to resist influence attempts because these would usually serve the influencing agent's selfish interests. "Additionally, the target of influence may be "concerned about how s/he would look to third parties if s/he complied" (Raven, 1992). A major factor contributing to the arrest of drunk boisterous males was the "presence or absence of female onlookers" (Kipnis, 1986, cited in Raven, 1992). This looks very much like a straightforward attempt by the drunks to increase inclusive fitness by impressing the females. The police may be doing the same. I suppose that the females present were young and attractive, and not the arrestee's grandmothers or school principals.

B. Coercion and reward

Coercion and reward come first in Raven's (1992) list of bases of social power. (The others are legitimacy, expert, reference and informational). Coercion and reward function in animals and were, in simplified form, the bread and butter of behaviorist learning experiments. Trivers (1985) suggests that closeness in time between stimulus and reward is the best heuristic, nature could have found to infer causality. As a support he cites experiments by Garcia, who demonstrated that nausea - induced by x-rays- makes rats avoid food ingested many hours ago and not avoid the most recently executed action. "In life, some causal connections involve a long time delay, yet they are important for the animal to comprehend. . . . the animal gains from the assumption that bad food or water causes sickness and a whole series of other activities do not" (Trivers, 1985, pp. 105-106). Consciousness is not needed: nature made us find pleasurable what helps survival and offspring production, and aversive what hinders it.

Coercion and reward power require surveillance by the influencing agent (Raven, 1992). The model of the selfish influencing agent explains this well: the target tends to suspect that the agent's desires are to the target's detriment.

C. Referent power

"Referent power depends upon a person's identification with the influencing agent, or at least his or her desire for such identification" (Raven & Rubin, 1983, p. 413), the influencing agent serves as a model. For example, we use the type of clothes a famous baseball player wears. In this case, we would

not suspect that the actor tries to selfishly manipulate us to our disadvantage. Rather, he is acting independently of us (unless we suspect that he or she does so as a manipulative display to influence us, which would undermine referent power). Referent power needs no surveillance because the target would feel he or she acts in his own best interest. Parents often find out that children do not as parents (in their sometimes selfish interest) say, but, as parents (without manipulative intent) act. Children are good at detecting and not following "manipulative" models, who display behavior with the intent that children follow the model.

Referent power facilitates learning from positive models and therefore enhances inclusive fitness. Following the example of popular people also tends to increases liking by third parties, which again increases inclusive fitness.

D. Expert and informational power of medical doctors

Expert power involves following the person who knows best, informational power involves doing what is best for us after analysis of the facts. If the information is not perceived as given with manipulative intent (which, alas, is often suspected), compliance can be explained by the target's selfish interest to act optimally, by doing what he perceives to be correct.

a) Weaknesses of expert, informational power and statistics

Raven (1992) and Raven and Litman-Adizes (1986) deplore the ineffectiveness of medical expert and informational power. People behave in unhealthy ways in spite of better knowledge.

One reason for this is the fact that evolution made us choose fitness enhancing behavior not as a result of logical analysis but due to pleasure and aversion. Therefore, it is hard for us to override our liking of sweets with logical nutritional information, and to overcome our aversion to restraint with information about the life-saving features of safety belts.

Furthermore, there is no evolutionary precedent for peer reviewed research and unbiased statistics on large random samples. We are not prepared to value it as highly as we should. And even this research is not bullet proof, it often succumbs to the researcher's basic belief system or his greed for recognition. The evolutionary precedent of selfishness and everyone for himself pollutes even academic research.

The evolutionary hypothesis does not merely suggest that our genetic hard-wiring predisposes us to such behavior. Additionally, I suggest that our present environment is of the same kind as before, of individuals using all available methods to pursue goals to their individual advantage. Therefore ,the old strategies, based on the survival of the selfish individual, and tested over billions of years of evolution, are still the most successful ones, even if those strategies are not transmitted genetically. Communism failed, in my opinion, because it is vulnerable to invasion by cheaters, and because it required pure altruism. Voluntary and unsurveilled altruism towards non-kin and non-reciprocators is not an evolutionary stable strategy. In nature, only closely related individuals, like ants and bees display totally unselfish behavior. This behavior is detrimental for individual fitness but has been shown to be optimal for inclusive fitness.

So why do people tend not to follow doctor's orders? The assumption of the arms race between deception and countermeasures is in agreement with the observations. Patients are predisposed to distrust the doctor, maybe they even meet him with more distrust than he deserves. There is no evolutionary precedent for the kind of controls we have on medical research. But, mistrust is not totally unjustified. Human nature's inherent selfishness lurks and finds its way wherever it can. Raven and Litman-Adizes (1986) suggest that "health professionals tended to discourage the use of informational influence in relating to patients, since it was looked upon as a threat to the medical profession. . . . . Indeed, the patient may become more self-sufficient and less dependent upon the practitioner." Furthermore, professional "ethics" tend to defend the professional's private interests against the client's. Finally, it is intriguing that medical science insists that today's state of the art is the truth, and that patients should trust it. This occurs in spite of the fact, that, historically, a very large percentage of one decade's scientific "truths" turned out to be the next decade's untruth or laughing stock.

But, modesty and excessive realism were not advantageous in prehistoric times. Neither are they today. Self confidence is impressive, even when it is false. Patient "satisfaction is inversely and significantly correlated with the patient's perception of uncertainty in the physician." "Clinicians often equate confidence with competence, a perception that may be shared by patients" (Baumann et al., 1982, p. 167). This is also dangerous in court proceedings, as

the "jury may well accept the opinion of an expert who exudes confidence over the opinion of an opposing expert who expresses appropriate caution" (p. 173).

b) Overconfidence in choice of medical treatment

Hence, overconfidence is advantageous for status and success, and therefore for reproductive success. And, as predicted, this type of deception becomes automatic and the influencing agent himself becomes more credible by believing in his false confidence.

For example, among people with a cough who were diagnosed as having pneumonia with 88% confidence, only 20% actually had pneumonia (Lichtenstein, Fischhoff and Phillips, 1982, p. 321). Baumann et al. (1991) tested physicians with precise descriptions of a woman's breast cancer case. They found micro-certainty- a high confidence expressed by the individual physician about his decision- in spite of great macro-uncertainty - a great variation of actions across individuals. This macro-uncertainty expresses the uncertainty of the profession as a whole. A woman might have a radical mastectomy, chemotherapy or maybe even no treatment at all, depending on which doctor she happens to meet. And she will not be told that the treatment she receives depends on the doctor's individual preference, which greatly differs from other doctor's choices. "Micro-certainty [. . .] is likely to mislead patients as to the true state of clinical opinion, and lessen their role in decision making about their own health" (p. 173). It may also "impede the self-scrutinity required to implement quality assurance programmes".

As a result of the arms race between deception and counter measures, expert power's credibility is enhanced by the expert's deceivingly secure attitude and self deception. Overconfidence seems to be as necessary and adaptive as the positive illusions described by Taylor and Brown (1988).

Of course, overconfidence backfires when it is exposed. Therefore confidence should be higher than warranted, but not exceedingly high. In Baumann et al. (1991), the danger of detection is minimal. I would predict that high probability of being exposed decreases overconfidence. If the target was not an unsuspecting patient but a professor and cancer expert examining the doctor's knowledge for continuing education credit, I would predict greatly reduced overconfidence.

c) Mistrust towards expert power

Mistrust towards influencing agents also can explain negative expert power: "But it has been observed that sometimes we may do exactly the opposite of what the influencing agent does or desires that we do. [What Hovland, Janis, & Kelley (1953) called the 'boomerang effect']. . . . We assume that he [an aggressive used car salesman] is using his expertise in his own best interests, not in ours" (Raven, 1992). In other words, if he warmly recommends a certain car, it might be the most overpriced or problematic car in the lot. Honesty does not pay, unless if it gives future gain in reputation: used car salespeople often do one shot deals. Selfish defection is the best strategy in short term relationships, as shown by Axelrod's game theoretical work on the prisoner's dilemma (cited in Dawkins 1989). In long term relationships, cooperation is advantageous. It

develops so naturally and spontaneously, that it frequently made soldiers of opposing armies in WWII trenches cooperate by staging noisy mock shootouts while actually avoiding to hurt any opponent who in turn would not hurt him (Dawkins, 1989, p. 228). And people who expect long term interactions with us are more likely to give honest information about the car they sell. This does not occur because of that person's inherent "goodness", but because his selfish long term interests are served best by a good reputation and continued alliance with us. Of course, he would not want to admit this to us (=deception) nor to himself (=self deception)

To summarize: Expert power is prone to be used for selfish and manipulative purposes, even if the expert denies this, and even if the expert himself believes that this is not the case. Therefore it is met with innate distrust, even when the target cannot point out what the nature of the suspected manipulation is. The same is valid for informational power, because information is rarely free-standing but rather dependent on expert information. A simple information like: "You should eat apples because they contain lots of Vitamin C," implicitly requires the target to believe that Vitamin C does exist, that it is contained in apples and that it is good for us.

This mistrust hypothesis would lead to the prediction that the more the target can verify the data and ascertain that he or she is not being deceived, the more rationally he or she will act in his own best interest. The positive results of the "mutual participation model" (Raven and Litman-Adizes, 1986) seem to confirm this prediction.

VI. AN ALTERNATIVE UTOPIA

"Imagine all the people live in love and peace" (John Lennon, approx. 1968). Nothing to live or die for, no hunger, no heaven and no religion. I would add more points. Imagine we could use our cars and clothes until they wear out. And need not pay for the prestigious brands in the first place. And they were made for maximum usefulness, not for flashiness and planned obsolescence. Imagine we used cars only when absolutely necessary, because we unselfishly concluded that bicycles are better for the air we all breathe and for our natural environment. Imagine we would enjoy the benefit of healthy exercise by walking and bicycling instead of succumbing to our preprogrammed tendency to evade avoidable physical effort, and hence we were not wrought with the health damage coming with our sedentary life styles.

Imagine what would happen if we renounced social influence through violence (war and crime) and through deception (marital infidelity, tax fraud). 95% of all topics for novels and movies would disappear! Imagine we could find sexual partners without lies and manipulations, without having to spend decades acquiring useless status and beauty. And imagine humanity would, for the good of our and other species, voluntarily cease selfish behavior and even stop the population explosion. I estimate that over 90 percent of our working time and financial expenses would immediately be freed.

But, I forgot! Even if our general predispositions would allow the utopia, a few selfish individuals could take advantage of the system. Then we would need to be careful to prevent cheating. The cheaters would evade our precautions

by cheating in more sophisticated ways. It would pay if we only trusted expensive impression management displays that are hard to falsify. Sorry! We're back to square one.

VII. SUMMARY

People tend to influence others for selfish reasons. They tend to hide this fact from others and even from themselves. Targets of influencing attempts act as if they knew the influencing agent cannot be trusted. An extraordinary amount of effort is devoted to impression management, the effort to establish credibility.

The arms race between influencing agent and target, between deceiver and defenses against deception, is very expensive. Impression management is a full time job, and the other full time job in life serves to acquire the finances needed to buy the paraphernalia (like designer clothes, car, condo and prestigious schools) to impress with. The very fact that these items are expensive and difficult makes them hard to fake and therefore more credible.

All animals are genetically programmed to maximize their inclusive fitness (the number of their genes in the gene pool of future generations). Humans have genetic and cultural tendencies to maximize inclusive fitness. Social influence and even altruism tend to be in the service of inclusive fitness maximization. Everyone seeks his maximum benefit. Alliances with nonkin are utilitarian.

Deception will be used whenever useful. This fact should be hidden: one's reputation is enhanced by being seemingly altruistic. We would want to

deceive others about our selfishness and deception. Furthermore, we can deceive better when we ourselves are convinced of what we say. We tend to deceive ourselves, but often a part of us knows the repressed truth.

After all this pessimistic outlook, is there any reason for optimism? Maybe we can change if we become aware of our unawareness, if we stop deceiving ourselves and others about the fact that we are deceiving. Change would require that true and ruthless honesty be socially acceptable, and mere attempts at deceiving be stigmatized. If true honesty and awareness pay, if they increase inclusive fitness, our fitness maximizing instincts will embrace them.

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