

BETWEEN THE SPECIES

Why Do We Care?: A Natural History of Noddings' Ethical Theory

ABSTRACT

Noddings' theory of caring, which is nearing its 35th anniversary, has failed to garner the attention of the more classical theories of ethics. This slight may be due to its relative youth, or the historical support for other constructs, but if examined through the lens of evolutionary biology, the validity of Noddings might be tested. Using recent discoveries from the emerging fields of cognitive ethology and neuroscience, I have evaluated whether there exists evolutionary underpinnings for her theory. My analysis makes it apparent that the empathy and altruism required for the practice of caring are as much a product of our natural instincts as are our selfish tendencies. Armed with this information, one must draw the conclusion that the ethic of caring, unlike other ethical theories, is not grounded in a cultural construct of what is right but in a *natural* one.

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Introduction

When she first proposed her theory of caring, Noddings recognized that in all previous iterations of ethical theory, “human caring and the memory of being cared for...have not received attention except as outcomes of ethical behavior” because “ethics, the philosophical study of morality, [had] concentrated... on moral reasoning” (Noddings 2003, 1). In her mind, this was because all previous theories had been approached from a masculine perspective; to ground ethics not in rules but in *caring* was to feminize it...or so she thought. She actually came to be the harbinger for the results of three decades of research in social psychology, cognitive neuroscience and ethology that explain the evolutionary origins of empathy and provided a portent for the re-emergence of group selection as a viable hypothesis to explain altruism and justice. What follows is an explanation of why Noddings’ theory of caring should take its proper place as foundational for the study of ethics in the natural *and* educated world.

Not Just a Theory, but a *Theory*

Grounded in the relationship between the *one-caring* and the *cared for* (the two will henceforth not be italicized), Noddings explains that, according to the theory of caring, all ethical conduct is grounded in the interpersonal dynamic between the aforementioned dyad. According to Noddings, “caring involves, for the one-caring, a ‘feeling with’ the other” (Noddings 2003, 30). It is to act “not by fixed rule but by affection and regard” (24), and to allow the “cared for [to] ‘grow’ and ‘glow’ under the perceived attitude of the one-caring” (67). Without the fixed rules present in other ethical theories, some have argued that caring carries with it an ambiguity that prevents it from providing clear guidance with regard to ethical action (Rachels 1999). Noddings, however, determines that the one-

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caring's actions serve as "the foundation of—and not a mere manifestation of—her morality" (42). In what could seem like an echo of deontological ethics, the one caring acts from "A sense that 'I must' do something ... " (Noddings 2002, 13). At times when there is internal resistance, we must "... ask ourselves how we would behave if this other were pleasanter or were someone we loved, if we were not tired, if the need were not so great" (Noddings 2002, 13). Caring thus becomes an ethical act that, unlike duty ethics, is not rational but *relational*. And, "A relational interpretation of caring pushes us to look not only at moral agents but also at the recipients of their acts and the conditions under which the parties interact" (Noddings 2002, 14). Therefore, the relationship is not simply the product of the innate existence of some ethical system; rather Noddings sees the relationship *as* the ethic.

The evolutionary roots of this capacity for dyadic caring run quite deep. Cooperative and affiliative behaviors exist in both invertebrate and vertebrate taxa, being observed in animals ranging from ants, to birds, to primates (Wilson 1975). Because cooperation has been identified as adaptive in many mammals, it should not be surprising that there exists positive feedback for engaging in such behavior—delivered in the form of opioids—in the reward centers of the brain (Rilling et al. 2002). It has been suggested these neural pathways serve as the biochemical basis for the development of trust between two individuals (Bekoff and Pierce 2009). With trust having been identified as necessary for social cooperation (Axelrod and Hamilton 1981), the rudiments of caring likely exist in most if not all mammals (Bekoff and Pierce 2009) and at least some birds (Marzluff and Angell, 2013).

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Caring, in Noddings' estimation however, requires more than cooperation—it requires empathy. Though the capacity for empathy in non-humans had been intimated for decades (De Waal 2009), it was not until the discovery of mirror neurons that there existed a physiological basis for its exhibition (Gallese, Fadiga, Fogassi, and Rizzolatti 1996). These cells are activated when an individual is *watching* what a conspecific does, producing the same neural excitation within the individual as if she were *doing* it herself (Gazzaniga 2009). This neural stimulation means that, in many ways, one *feels* as if she is on the high-wire with the acrobat despite standing several hundred feet below, even as she rests comfortably on solid ground (De Waal 2009). Humans almost certainly share this capacity not only with other primates, but also with birds (Keyesers and Gazzola, 2009). Recent ethological studies suggest that this capacity may even extend to a broad taxonomic base that also includes rodents, elephants, dogs, cetaceans, and even cephalopods (Bonini and Ferrari 2011).

The ability to share experiences through an emotional connection is to exhibit empathy, but it can be done to varying degrees. The most basal of these exhibitions is through an emotional contagion like fear, which can be shared by conspecifics and heterospecifics alike and has been identified both in birds and mammals (Bekoff and Pierce 2009), as well as eusocial insects (E.O. Wilson 1975). The sharing of fear does not necessarily require mirror neurons, for it may be detected through auditory, chemical, or tactile stimuli, but for an input that doesn't immediately activate the limbic system, these specialized cells are likely necessary to elicit such a response. It has therefore been suggested that the contagiousness of an act like yawning is a product of mirror neurons and an exhibition of proto-empathy (Anderson, Myowa, Yamakoshi, and Mat-

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suzawa 2004), and has been observed in a variety of primate families (De Waal 2009), and even, arguably, in domestic dogs (Madsen and Persson 2013). This connectedness can be extended into times of emotional distress, allowing an individual to “feel sorry for” another (Bekoff and Pierce 2009). Considered in humans to be the “misery loves company” effect, it has been documented that people who are sad are apt to seek out social contact (Gray, Ishii, and Ambady 2011) and that surrounding oneself with people who are exhibiting similar feelings of depression can alleviate its effects (Gibbons 1986). In this context, emotional empathy in both humans and non-humans is adaptive, serving as a rudimentary form of caring.

Yet Noddings’ vision of caring involves two distinct roles, the one-caring and the cared for, suggesting that a difference exists in expectations and actions. So, while there are times when utilization of empathy may be all the one-caring has to exhibit in order to satisfy the needs of the cared for, Noddings explains that this often isn’t the case. The one-caring should not be seen acting in a consistent rule-bound fashion; rather, “variation is to be expected...for her engrossment is in the variable and never fully understood other” (Noddings 2003, 24). The ethical expectation is that the one caring “... ideally acts in direct response to the needs of the cared-for. When this impulse toward natural caring fails, a carer draws on her own ideal of herself as a carer. [She asks] How would I act if I were at my caring best?” (Noddings 2002, 8). True caring, Noddings would argue, moves beyond empathy and into sympathy, whereby the one-caring is able to internalize what the cared-for needs and attempt to provide it.

The initial behavior associated with sympathy—observers approaching a victim before they know what is going on—has

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been identified both by Noddings and de Waal (2009). While the former articulates it as “the apprehension of...misery in others” (Noddings 2003, 51), the latter considers the behavior an evolutionary exhibition of pre-concern, for it exists in many social mammals, even some that fail to possess mirror neurons (De Waal 2009). It can be argued that it is because of this capacity that dogs are considered man’s best friend, for whether it is a pack-mate, a playmate, or an human owner, canids share a predilection to gravitate towards and provide comfort to the loser of a bout (Cools, Van Hout, and Nelissen 2008). Because these actions are instinctual, however, the aforementioned behavior fails to approach what is widely considered to be true sympathy, that which is exhibited by humans and is required for Noddings’ theory of caring. For true sympathy to occur, there needs to exist the ability of an individual to take another’s perspective; they must possess a theory of mind (de Waal 2009).

When one is wont to attribute a theory of mind to a member of a species, the authors of the first investigation of the phenomena state that it requires that an “individual imputes mental states to himself and to others” (Premack and Woodruff 1978, 515). Viewed in this light, it has been identified that the ability to take into account another’s perspective exists not only in apes (Call and Tomasello 2008) and monkeys (Kummer, Anzenberger, and Hemelrijk 1996), but also in dogs (Maginnity 2007) and the “brainiest” group of birds, the corvids (Bugnyar and Heinrich 2005; Dally, Emery, and Clayton 2006). Noddings explains that such perspective taking allows the one-caring to observe a situation with her own eyes *and* with those of the cared for. Cognitive neurologists have linked an increase in this capacity to the possession of *Von Economo neurons* (VEN), also know as spindle cells (de Waal 2009).

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These specialized neurons have been identified in apes (the taxonomic group of which humans are a part), cetaceans (i.e. dolphins and whales), and elephants (Bekoff and Pierce 2009).

The enhanced ability to internalize another's perspective manifests itself in the most advanced form of caring—targeted helping. Defined as “assistance geared toward another's specific situation or need” (de Waal 2009, 92), targeted helping has been exhibited in a variety of species. Ranging from an ape at a zoo collecting a stunned starling in her enclosure, ascending the tallest tree, and spreading the bird's wings before throwing it to freedom (de Waal 2006, 2) to wild elephants providing dying companions with the resources they perceived necessary to keep their conspecifics alive (de Waal 2009, 133), targeted helping is what defines Noddings' theory of caring, and differentiates it from other systems of ethics.

Rather than being grounded in the abstraction of rules and the multiple layers of principles that construct the classical—and as she identifies them, traditionally masculine—theories of ethics, *caring* is grounded within the neurological framework constructed through evolutionary processes to facilitate the interpersonal relationships between individuals of big-brained social species. Noddings is careful to note that, though “... care theory has its practical roots in women's history and traditions,” she has “... no idea whether women are, by nature, more caring than men” (Noddings 2002, 10). She notes the frequently made observation that “there seem to be inclinations or fairly regular tendencies that are gender related, but it is not unreasonable to attribute these to centuries of experience and social expectations” (Noddings 2006, 233). The theory, therefore, is not an essentialist one. Instead, it is an ethic that “... may be regarded as a form of pragmatic naturalism. It does not

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posit a source of moral life beyond actual human interaction” (Noddings 2002, 15). Since the ethic’s foundation lay in caring interactions, its development requires “... studying the tradition of care that has been so much a part of women’s history” (Noddings 2002, 10).

In each interaction, one individual is foisted into the role as either the one-caring (i.e. the deliverer of empathy, sympathy, or targeted help), or the one who is cared for. These roles, particularly that of the cared-for, put individuals into positions where the other participant might expect reciprocity. For Noddings, this is delivered in some form of response by the cared-for, either by flourishing under the watchful eye of the one-caring or sharing their experiences (or both). This is not a burden to the cared for, “because the cared for is free to be more fully himself in the caring relation” (Noddings 2003, 73). This is not the case when viewing the expectation of reciprocity from a more traditional ethical perspective. Viewed from the framework of virtue ethics, where reciprocity serves as a theoretical pillar (Putnam 1988), it *is* a burden, because, according to Becker (1986, 74)—an authority on the subject of reciprocation—“we ought to be *disposed*, as a matter of moral character, to make reciprocity a moral obligation.” Reciprocity, then, seemingly exists both in the abstract as a principle in classical ethics framework, and in the concrete as a part of a relationship in Noddings’ ethic of caring.

Group Selection Acting on the Individual

Were one to distill both versions of reciprocity down to a single articulated rule, the origin of both becomes plain. In the more classical version, reciprocity manifests itself as the golden rule: *do unto others as you would have done to you*. This is represents Kant’s categorical imperative (Kant 1965) and is

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the centerpiece of the duty ethics framework. The reciprocity sought in the ethic of caring is different. Noddings (2002) writes, “Contrary to Kant, who insisted that each person’s moral perfection is his or her own project, we remain at least partly responsible for the moral development of each person we encounter” (15). For Noddings’ theory, reciprocity instead manifests itself as *do unto others as they need done to them*. Viewed in these forms, the former version of reciprocity (from either the perspective of virtue or duty ethics) is a self-centered one, aligning itself, at the most basal level, with the biological version of reciprocity, whereby individuals in a society are not expected to take another’s perspective as they engage in a form of *quid pro quo* (Ridley 1996). Noddings’ take, therefore, deviates from typical biological reciprocity. Rather than being built from a position of selfishness, it is constructed from a position of selflessness, making it an act of altruism. This distinction explains why Noddings (2002) declares,

... at bottom, the ethic of care should not be thought of as an ethic of virtue. Certainly, people who care in given situations exercise virtues, but if they begin to concentrate on their own character or virtue, the cared-for may feel put off. The cared-for is no longer the focus of attention. Rather, a virtue—being patient, or generous, or cheerful—has become the focus, and the relation of caring itself becomes at risk. (14)

It should therefore not be surprising that these perspectives on reciprocity are, at times, in diametric opposition because they are the products of processes that are, at times, in diametric opposition: individual selection and group selection.

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In a social species, the processes of individual selection cause an individual to seek status due to the privileges that are associated with its acquisition. These privileges most often allow the individual with status access to preferential resources (Wilson 1975), including food (de Waal 2006) and mates (Ridley 1993). This correlation between status and privilege generates a justifiable sense of entitlement for each distinguishable status level, leaving individuals with an aversion to inequity (Brosnan and de Waal 2003). This compulsion to “get what one deserves” provides the foundation of the American sense of fairness (de Waal 2009), which, according to the renowned moral and political philosopher Rawls (1999), is what defines justice. In order to facilitate this in groups, rules must exist, be they the unwritten ones of non-humans (Bekoff and Pierce 2009) or those clearly stipulated by a constitution (Rawls 2003). The utilization of such rules allows for a clear delineation for ascension in the hierarchy—but it also provides a system that can be cheated. The existence of such freeloaders requires that enforcers exist to monitor individuals’ adherence to the system. Performing police duties has benefits to more than just the group—individuals who punish transgressors attempting to illicitly acquire status are granted status themselves (Wilson 2007). Due to the nature of their positions, however, such deputies are unable to achieve the ultimate in privileges, and thus are faced with a conundrum: work within the system and remain relegated to secondary status, or step outside of it in order to acquire more power?

In chimpanzees that were living at the Arnhem zoo, one possible answer to this question played out before the eminent primatologist Frans de Waal. As the story goes, Luit, “the most magnificent chimpanzee male I have known, both in body and spirit” (2006, 44), had ascended to the status of alpha male.

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This had been achieved because of his physical dominance over any individual chimpanzee and the strategic maneuver of supporting winners during internecine conflict during his meteoric rise before becoming an arbiter for all disputes once he had become alpha. The cunning previously deposed leader, Yeroen, made it plain he was unsatisfied with his demotion, and he quickly formed an alliance with Nikkie, an oafish brute. Together, their alliance was able to overthrow Luit and the pair was able to maintain their position for four years. In their dyadic coalition, Nikkie was granted the privileges befitting a lone alpha in every arena save one—in the access to mates. In this respect, Yeroen was granted a disproportionately large number of copulations. It was a classic exhibition of biological reciprocity whereby each participant had selfishly acquired that which he wanted and thought he deserved (de Waal 2006).

The arrangement, however, was eventually deemed unsatisfactory by Nikkie, who both began to deny Yeroen access to females, and stopped supporting him in spats with Luit. In some instances, Nikkie even joined Luit in removing Yeroen from a female. Yeroen's frustration led to several attacks on Nikkie, and thus their tightly knit bond began to unravel, allowing Luit to return to his "rightful" position as alpha male (de Waal 2006).

The aforementioned scenario includes what some would consider significant anthropomorphizing, but it was used because this scenario could very easily have played out in humans rather than chimpanzees. In fact, it essentially *was* played out during the War of the Roses. Matt Ridley (1996) relays his recognition of the similarity thusly:

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Then it dawned on me. Margaret of Anjou, the queen of England, was Luit. Edward IV, the usurper son of the Duke of York, was Nikkie, and the wealthy earl known as Warwick the Kingmaker was Yeroen. Consider: with Warwick's help, the Duke of York toppled the incompetent hen-pecked Henry VI. After York was killed, his son, Edward IV became king, but nervous of Warwick's power allowed his wife's family to build up a rival faction at court to undermine Warwick. An increasingly disenchanted Warwick formed an alliance with Henry VI's wife, Margaret of Anjou, drove Edward into exile and seized back the throne for his new puppet, the bewildered Henry VI. But Edward successfully fomented rebellion against Warwick, killed him in battle, captured London and had Henry VI murdered. It is almost the same story as Luit, Nikkie and Yeroen. At Arnhem, Luit, too, was eventually killed, by Yeroen. (159)

For both humans and chimpanzees, the story seems to be the same: the allure of access as an individual to more and better resources is too great to be overcome by the imposition of rules for reciprocity, regardless of whether they derive from a sense of duty, a set of virtues, or the prescription of law.

Noddings' perspective on reciprocity as a product of altruism ("do unto others as they need done to them") leads to a different expectation of how fairness should manifest itself in society; it will lead to the cared for receiving care from the one-caring. Observed in practice within a society, this type of fairness has been referred to as decidedly "European," resulting in the redistribution of wealth to ensure that each individual has equal (i.e. fair) access to the services needed to

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help her thrive (de Waal 2009). This manifestation of caring fairness is seemingly at odds with the polygamous nature of our ancestral mating systems where status mattered (Gavrilets, 2012), particularly in light of the fact that individuals who are considered to be kind—and therefore more likely to engage in altruistic acts—are less likely to be considered for positions of high status, regardless of gender (Haslam and Reicher 2012).

What the existence of caring fairness on a societal level does suggest, however, is that not only do females have an inclination to engage in altruism, but so do males. This predisposition to care by the male may, surprisingly, have its origins in the very polygamous mating system that should stifle the desire. It has recently been hypothesized that the behavioral change from a highly competitive, harem-based mating system to that of the pair-bonding that characterizes modern human reproduction was the product of less physical males provisioning a female with meat acquired during a hunt (Gavrilets 2012). Because meat is difficult to come by for most primates (King 1980), giving up such a rarity is to the detriment of the giver—the one caring—suggesting it is an act of altruism (de Waal 2009). Such behavior may therefore be the product of an innate caring instinct.

It could also be supposed, however, that the behavior is the product of the classical version of reciprocity. The sharing of food with the opposite gender may be a product of our ancestry, for it has been documented that chimpanzee females mate more frequently with the males that provide them with food (Gomes and Boesch 2009), and, when between-gender food sharing by humans is seen in public, there is a similar presumption of sexual intimacy (Miller, Rozin, and Fiske 1998). Taken in this way, the provisioning of food and its facilitation of the devel-

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opment of pair-bonding could just be seen as another way of beating the system. There is circumstantial evidence, however, that even if the initial impetus behind such courtship feeds in humans is selfish, it may inspire a caring relationship. In her book, *Mothers and Others*, Sarah Hrdy (2011) describes how in some cultures, women will have sanctioned extramarital couplings that can result in partial paternity, with children thought to be the offspring of all of the men who may potentially be the father. These men then care for not only the child when it is born, but also the mother when she is pregnant. Though similar behavior has been observed across various cultures, it is far from universal. And even if it were, it would be difficult to argue that the behavior was not selfish, as men may have simply been taking actions to protect their genetic interests. This possibility, paired with the theoretical nature of Gavrilets' (2012) study, makes it impossible to discern whether these are empirical instances of the caring ethic in action. In order to make a stronger claim for the natural inclination to care, there must exist empirical and observational data on species with common ancestry whereby reciprocity exists in the form of altruism.

The Caring Primate(s)

Anecdotes exist from credible ethologists of individuals providing not only targeted help in a fashion marginally detrimental to their well-being, but also of risking their lives and suffering harm in the course of helping others (de Waal 2009). To make the claim that the ethic of care is the natural framework from which humans work, however, a society of caring must be identified in some of our closest living relatives. And such a society seems to exist in bonobos, the pygmy chimpanzee.

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As opposed to the common chimpanzee, whose societies are structured around male-dominance, bonobo social structure is decidedly matriarchal (Sapolsky 2006) and much more egalitarian (de Waal 2006). This discovery certainly aligns with the cross-cultural narrative Noddings (2006) observed that has “femininity . . . defined in terms of subservience and masculinity in terms of the manliness of the warriors” (234). Perhaps that would lead Noddings to say that their radically different social organization, layered on top of even slight gender differences, predisposes bonobos to caring. What is known is the existence of significantly stronger bonds in both female-female and male-female bonobo relationships as compared to common chimpanzees. These relationships are likely bolstered by the fact that conflict resolution does not occur with violence in bonobo society but through sex, both within and between genders. That there is decidedly less musculature in bonobos than common chimpanzees provides evidence that this form of reconciliation has been in existence for a long period of time (de Waal 2006). Might this also suggest that bonobos are a species whose societies are built on caring?

Because sex serves as the centerpiece of reciprocity that exists in bonobo society, one could argue that it may simply be an example of an extremely intimate form of *quid pro quo*. One could also argue that, with bonobo societies made up largely of related males and unrelated females (de Waal 2006), the low levels of violence are a product of kin selection (Silk 2006). This would also explain that, given the desire for sex and paternity that exists in males, with the former so freely provided that it muddles the certainty of the latter, males are unlikely to commit infanticide if there is even a chance the offspring is his own—or his brother’s (Hrdy 1999).

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So, whether the reciprocity that exists in bonobos is the product of being selfish or selfless, in either case, the reciprocal nature of bonobo culture is most probably due to genetic and not cultural evolution. Therefore, were this to be a manifestation of Noddings' caring, all it would illustrate is that in one species natural selection produced an ethic of caring. For caring to be considered natural in humans, it would therefore have to be paraphyletic, with exhibitions in species possessing a more basal common ancestor with humans. And though the rudiments of caring culture—social groups with patterns of exhibiting altruism—have been observed in a wide variety of other animals, most of the data and observations come from primates (Cronin 2012; de Waal 2009; Stevens and Gilby 2004). These include the best (or most well-described) case of a culture that has almost certainly evolved to care.

Savannah baboons exist in complex societies structured largely around male dominance hierarchies (Sapolsky 2002). In order to achieve dominance, a male must engage in violent physical exchanges—though like with Gavrilets' (2012) model for humans, there exist a variety of mating strategies that allow males of lower rank to achieve copulations (Bercovitch 1986). This provides the first indication that some inclination towards a caring form of reciprocity may exist in savannah baboons. The existing division in mating tactics between males within a troop manifests itself in other circumstances—those that are combative (and therefore dominant) are less likely to be social (Sapolsky 2006) and more likely to act boldly when presented with a unique opportunity (Wilson 2007). When a troop of savannah baboons next to a heavily studied group (The “Forest Troop”) were provided with an unexpected foraging opportunity—the creation of a dump in their territory—the boldest individuals were rewarded in this omnivorous species.

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With an abundance of now easily available protein in the form of thrown away meat, males in the “Garbage Dump Troop” who elected to battle each other for access to the food were living the proverbial high life—until the bacteria responsible for primate tuberculosis came to reside on the meat. Once the fast spreading disease infected the group, all of its members died, along with the males in the neighboring “Forest Troop” bold enough to cross territory lines and feed at the dump. Sapolsky, the troop’s lead researcher, noted a significant change in the group dynamics in the aftermath of the outbreak.

The social consequences of these changes were dramatic. There remained a hierarchy among the Forest Troop males, but it was far looser than before: compared with other, more typical savanna baboon groups, high-ranking males rarely harassed subordinates and occasionally even relinquished contested resources to them. Aggression was less frequent, particularly against third parties. And rates of affiliative behaviors, such as males and females grooming each other or sitting together, soared. There were even instances, now and then, of adult males grooming each other -- a behavior nearly as unprecedented as baboons sprouting wings. (Sapolsky 2006, 108)

As with the predictions made by Gavrilets (2012), male and female baboons exhibiting a group selected sense of *caring* fairness could, under certain circumstances, out-compete those grounded in an individually selected sense of *deserving* fairness. Yet with the possibility of this being an anomaly that was simply the product of an unlikely epidemic whereby low-ranking individuals were simply left with a form of low-status

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quid pro quo, is there anything that can be said about the relative sustainability and transferability of this group's behavior?

With males as the gender dispersing from the group upon adolescence to avoid inbreeding (Sapolsky 2002), in order for the reconstituted "Forest Troop" to maintain its decidedly different ethos, it has had to incorporate members coming from troops that are more traditional. In these troops, males would have been exposed to significant violence both through observation and experience, and therefore would likely exhibit similarly aggressive behaviors themselves. Somehow, the troop successfully managed to enculture the new members, even in the absence of teaching (Sapolsky 2006). While the possibility exists that this is a product of their mirror neurons and instinct for mimicry (Palagi, Leone, Mancini, and Ferrari 2009), Sapolsky thinks otherwise.

To date, the most interesting hint about the mechanism of transmission is the way recently transferred males are treated by Forest Troop's resident females. In a typical savanna baboon troop, newly transferred adolescent males spend years slowly working their way into the social fabric; they are extremely low ranking -- ignored by females and noted by adult males only as convenient targets for aggression. In Forest Troop, by contrast, new male transfers are inundated with female attention soon after their arrival...Furthermore, these welcoming gestures occur more frequently in Forest Troop during the early post-transfer period, and there is four times as much grooming of males by females in Forest Troop as elsewhere. From almost the moment they arrive, in other words, new males find out that

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in Forest Troop, things are done differently. (Sapolsky 2006, 109)

With no apparent benefit to the females, and with transferred males receiving exactly what they need when they need it, this finding suggests that the cared for were receiving care from the ones-caring. Noddings would find this society to epitomize the ethic of caring, for it manifests itself in a culture derived from a natural inclination towards those that *need* attention. It contains no set of written rules, no sense of entitlement, and no need for immediate reciprocation; the only edict is a natural one, whereby the one caring feels compelled to (i.e. Noddings' sense of "I must") assist the cared for. It is the exhibition of altruism not by a lone individual but by a group, because millions of years of group selection have produced a predilection to care.

Maintaining the Culture of Caring

Though, as illustrated above, the instinct to care in humans and other higher primates likely has a genetic basis, the way it manifests and, possibly more importantly, maintains itself is the product of *culture*. In non-human apes, this is often achieved through different methods of grooming (Bonnie and de Waal 2006; Nakamura and Uehara 2004), which is both an act of altruism and one of the rites of affiliation. In humans, whose groups are naturally much larger (Dunbar 1993) and whose culture is both imitated with extremely high fidelity (Lyons, Damrosch, Lin, Macris, and Keil 2011) and advanced through the uniquely human capacity to "ratchet" (i.e. improve upon or advance) ideas (Whiten 2011), one of the most successful cultural constructs for maintaining the ideal of caring has consistently been religion.

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As noted by David Sloan Wilson (2003; 2007), religions around the world have both an “upward” and an “outward” component. For an evolutionary biologist, these align with the proximate and ultimate causes for religion respectively. Viewed thusly, the “upward” component, providing a relationship with a higher power and (in most religions) the promise of eternity in exchange for leading a just life, is what facilitates the “outward” component—it brings people together (Wilson 2007). Viewed from a the perspective of a social scientist, this take might be identified as decidedly functionalist (Durkheim, Cosman, and Cladis 2001), an idea that has fallen out of favor in the last fifty years (Wilson 2003). This is largely thanks to Evans-Pritchard (1956; 1965) who, with the help of his contemporaries, systematically studied the religions of “primitive” nations and concluded that a great many of the native people’s religiously motivated (i.e. “upward”) practices were irrational, and thereby non-functional—from the researchers’ perspective. When examined for how adaptive each religion’s tenets were for groups based on their local environment and cultural history, it was discovered that the design of the religion often succeeded in its ultimate (i.e. “outward”) goal—it brought people together (Wilson 2003; 2007), and in a fashion that put them in a position to care for one another.

Religions were therefore able to promote caring because they discouraged any tendencies towards selfish behaviors that arose from localized conditions. And with environmental and societal pressures ever changing, the most successful cultural adaptations were not those that were imposed from above but those that emerged through the natural course of group living (Ridley 2010; Vermeij 2006). This recognition explains why most of the religions that have ever existed on the planet have either disappeared or dramatically changed since their incep-

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tion (Wilson 2003). Because their ultimate goal is to bring people together, any religion that begins to fail to meet those ends must either respond by adapting its practices or face extinction. As Noddings (2002) describes it, the caring ethic “... does not depend on gods, or eternal verities ...” but on “... an ethical ideal constituted from memories of caring and being cared for” (15). That some religions have been able to grow their membership across cultures and continents is therefore less a testament to the divine theological ethic imbued within its practices, and more to their ultimate mission: to bring people together so they can *care* for one another.

Whether one subscribes to a framework of virtue, duty, or religious ethics, all are a *response* to an individual’s natural inclination to act selfishly. Only Noddings’ ethic of caring exists *because* of a natural tendency—to act altruistically. For this reason, while the other ethics may change based on time, people, and place, caring will live on in our species and others, for it may be the only *natural* ethic.

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