

[in press, May 2010]

To appear in Salmon, C. A., & Shackelford, T. K. (Eds.), *Oxford Handbook of Evolutionary Family Psychology*. New York: Oxford University Press.

Towards an Evolutionary Psychology of the Family

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Abstract

Kinship has been central to evolutionary biological analyses of social behavior since Hamilton (1964) extended the concept of Darwinian fitness to include an individual's actions that benefit not only direct descendants but also collateral kin. No longer were organisms simply reproductive strategists, they also were nepotistic strategists. This concept revolutionized the way biologists understand social interaction and influence. This chapter provides an overview of some of the ways evolutionary psychologists see humans as nepotistic strategists, introducing concepts that will be important to understanding the chapters on animal and human kinship to follow.

Keywords: adaptation, kin selection, inclusive fitness,

Introduction

What do you think of when you think about family? Parents, children, spouses, or siblings? How about grandparents or cousins? A beloved pet? For most people, relationships with those we think of as our family members are an essential part of our lives. As children, we were dependent on our families for our food and shelter. Our families protected us, loved us, and taught us about the world we were growing up in. Then, as young adults, many of us move away from our family circles, often to form families of our own. Sometimes this happens close by, other times we move miles away, sometimes even to other continents! But many of us retain strong ties to our natal kin. Relationships with family can be important to our emotional health and can play a significant role in our social success. Family can be a source of great joy as well as great anguish. Our siblings, for example, can be our strongest allies and our most persistent opponents. We need our families and yet sometimes we have a great difficulty understanding them. Hundreds of books have been published with the goals of helping us understand and improve our family relationships. Many focus on parent-child relations or sibling rivalry and how best to get along.

The current volume focuses on the whys, the reasons behind people's behavior and how a greater understanding of "whys" can help us in our own lives, to better understand our own behavior and that of our family members. It also brings something to the table that is often ignored in the study of families. Humans are not the only species to have families. Many other social species live in groups and have relationships with their parents, offspring, and siblings. Sometimes these relationships are short-lived, but sometimes they can last a long time and often appear to be characterized by strong bonds. Anyone who has read (or seen footage of) Jane

Goodall's descriptions of the relationships between chimpanzee mother Flo and her offspring, especially Flint, the son she nursed until her own death, can not help but see a bond that many human mothers and children feel.

“...nothing did any good, and about three weeks after Flo died, Flint died too. It seems that because Flo had been too old to force the spoiled Flint to become independent, he simply couldn't face life without her.” (Goodall, 1996, p. 96).

Goodall also noted that Flint's older sister Fifi tried to help him but eventually had to give up as she had her own infant son to care for. Although we are interested in animal families for their own sakes and hope our readers are too, we also hope that readers will recognize the deeper understanding of human families that can be found through an understanding of similar phenomena in other species.

Throughout this volume, you will see reference to the evolved motivations that underlie behavior. In making claims about the evolved nature of motivations and behavioral mechanisms, we are not judging whether a behavior itself is good or bad or right or wrong in any moral sense. Human and other animal behaviors exist and evolutionary scientists are interested in understanding why certain behaviors evolved and why they appear in certain contexts. Providing evidence that a behavior is generated by evolved mechanisms—infanticide by mothers, for example, which occurs in humans as well as many other species—says nothing about the moral nature of such an act. Rather, this investigative strategy represents an exploration of the circumstances that would cause such a behavior to have increased the reproductive success of, in this case, ancestral mothers of the species. It is a consideration of what sorts of selection pressures might have caused the evolution of the mechanisms that produce the behavior. In fact, reference to what “is” to justify what “ought to be” is referred to as the *naturalistic fallacy*.

Interestingly, the naturalistic fallacy seems to come into play for humans much more frequently than for nonhumans. Few people seem to worry if an evolutionary argument is offered for why a pig or a rabbit kills one of its babies. It's not as if we're condoning the pig's behavior. But if one tries to explain the evolutionary logic human behaviors judged to be immoral or unseemly, the suspicion is that you're thereby giving it a stamp of approval. But empirical data and the moral realm are logically distinct. No matter how desirable some behavior may be, that does not mean that wishing makes it so, just as the existence of a behavior does not necessarily make it desirable. A better understanding of the evolutionary forces that shaped a behavior and the cues to which the underlying mechanisms are sensitive may allow us to better point behavior in the direction society views as more moral or desirable (an excellent discussion of the naturalistic fallacy and evolutionary moral psychology can be found in Holcomb, 2004).

What is an evolutionary perspective on the family? (h1)

In many ways, early 20th century thinking about human behavior embraced Charles Darwin, or at least his functional approach to the study of life. To modern biologists and animal behaviorists, an evolutionary approach is second-nature. An adaptationist approach to animal families raises no eyebrows. But the last 75 years or so has seen an almost pathological avoidance of biology when it comes to the study of human behavior. In psychology, neo-behaviorism, humanism, cognitive theory, modern psychoanalysis, and an assortment of post-modernist explanations have come to dictate the way many academics think about human behavior. We believe it's time for a rather different approach. We need to remember that people are just another type of animal, subject to the forces of natural selection just as all other species are. It's time to revisit the importance of our ancestral history and the selection pressures that built not only the organs of our body but also those of our mind. To explain this approach, we

first provide a brief review of the process of natural selection, the special role of kinship in evolutionary analyses, and how adaptations can function as decision-makers, highlighting this with regard to kin relationships.

Natural Selection. (h2)

When we refer to an adaptation, we are talking about an anatomical structure, physiological process, or behavior that made ancestral individuals' more likely to survive and reproduce in competition with other members of their species. Adaptations are shaped, or evolve, through natural selection. The process of natural selection is simply the differential production or survival of offspring by genetically different members of the population (Williams, 1966). If an individual (whether animal or human) is better able to survive and reproduce, they are more likely to leave offspring that share their traits. Darwin's (1859) logic can be seen in the following:

Assumption 1: Species are capable of overproducing offspring.

Assumption 2: The size of populations of individuals tends to remain relatively stable over time.

Inference 1: A struggle for existence among individuals ensues.

Assumption 4: Individuals differ on traits (adaptations) that enable them to survive and reproduce.

Assumption 5: At least some of the variance in these traits is genetically heritable.

Inference 2: There is differential production or survival of offspring by genetically different members of the population, which is by definition natural selection.

Inference 3: Through many generations evolution of traits that are more adaptive

than others will occur through natural selection.

(Crawford & Salmon, 2004)

In other words, some feature of the environment poses a problem for an organism. Genetically based variants contribute to reproduction and survival with regard to that environmental condition. Individuals with those variants will be more successful, passing on their “good genes” and the resulting behavioral repertoire to their offspring.

Although the logic of natural selection is at the heart of all evolutionary explanations of behavior, there are several concepts that Darwin did not develop fully in his own work that have been more thoroughly elucidated in recent years. The one that is arguably the most relevant for this volume on the family is kinship theory.

Kinship Theory. (h2)

Altruism has long been a topic of interest in the study of both human and animal behavior. To many early evolutionary thinkers, it was a puzzle. Why would individuals be willing to sacrifice anything for another individual? The logic of natural selection would seem to suggest that altruism should not exist and yet it is found throughout the natural world. Hamilton (1964) demonstrated that altruistic behavior (behavior performed at a cost to oneself for the benefit of another) could evolve if the individuals involved were genetically related. Even though the direct reproductive fitness of the donor is reduced, if his actions aid his own genetic kin, then he receives an indirect fitness benefit. Typically, this idea is expressed by the equation:

$$Br_1 > Cr_2$$

Where B = the benefit to the recipient

r_1 = the genetic correlation between the donor and the recipient's offspring

C = the cost to the donor

r_2 = the genetic correlation between the donor and its own offspring

(Crawford & Salmon, 2004)

In the equation, r represents the probability that the two individuals each have an allele that is a copy of an allele in a common ancestor. Such an allele is called identical by common descent and the probability of such an event is the genetic correlation or coefficient of relatedness between individuals. Br_1 is the indirect benefit to the donor through the recipient's additional offspring and Cr_2 is the direct cost to the helper because of its decreased offspring. Both sides of the equation refer to changes in the donor's fitness as a result of their altruistic actions. This was a new way of thinking about fitness. No longer were organisms simply reproductive strategists (with fitness being measured in own offspring); now they were also nepotistic strategists (with fitness being measured in own reproductive success plus the reproductive success of kin). If an individual's genes are just as likely to be present in a sister as in a daughter, one would expect the evolution of sororal investment in the same way as one expects maternal investment. Kinship theory and Hamilton's understanding of it illuminated our understanding of social interaction and influence, paving the way for future insights into kinship dynamics.

For example, consider conflicts that occur within the family (animal or human). Hamilton (1964) pointed out that kin are valuable in the genetic sense (among others senses) and that what contributes to an individual's inclusive fitness also may contribute to the inclusive fitness of the individual's relatives. The more closely related are two individuals, the greater their shared genetic interests. But it is important to remember that although there is genetic commonality, there also are genetic differences and these can lead to conflicts of interest. These conflicts are often apparent when individuals are competing for the same scarce resources, such as mates, food, or social status. Trivers' (1974) analysis of within-family conflict made use of Hamilton's

approach. Because the probability of an individual replicating its alleles through its own offspring is 0.5 (the degree of relatedness between parent and offspring) and through its full sibling's offspring (a niece or nephew) is only 0.25, natural selection will favor individuals that seek a greater share of their parent's resources. In other words, we expect a certain degree of sibling competition. In some species, this competition results in the elimination of a sibling competitor. In others, it just means a lot of headaches for the parents. From a parental perspective, they are equally related to all their children and grandchildren, so parents have typically been under selective pressure to resist a particular offspring's demands, especially when offspring are trying to extract more than their fair share of resources.

Consider the case of weaning conflict in a species that produces one offspring at a time. When an offspring is very young, parental fitness typically benefits most from investing highly in this current offspring. It's in the offspring's best interests to extract as many resources as possible up to a certain point, even at the expense of future siblings the mother could be having. At some point, the value to the offspring (who may be reaching a state of greater independence, able to obtain food on its own, etc.) of monopolizing such resources is outweighed by the costs in terms of its own inclusive fitness. Typically, the mother reaches her own point of diminishing returns before the offspring does (after all, she is equally related to each of her offspring, whereas her current offspring is more closely related to itself than to future siblings). The period between when the mother's fitness is best served by decreasing investment in the current offspring and investing in future offspring (in reproducing again) and when the current offspring's fitness is also best served by the mother investing elsewhere is known in mammalian species as weaning conflict (see Trivers, 1974). The mother's fitness returns are decreasing but the offspring isn't quite ready to give up any investment. Conflict is most intense at such a stage.

During this period, the mother's fitness is increased more by investing in additional offspring, whereas a particular offspring's fitness is increased more by continued maternal investment. The conflict ends as the fitness benefits of weaning shift to both mother and offspring (Drake, Fraser & Weary, 2008; Humphrey, in press; Rehling & Trillmich, 2007).

Harvard professor David Haig (1993; and see Haig, 2002, for review) has investigated parent-offspring conflict at a further level of analysis by considering that there are three sets of genes, each set of which may have different interests. They include genes in the mother, maternally-derived genes in the current offspring, and paternally-derived genes in the current offspring. With maternal genes having an equal stake in each offspring, they will be selected to transfer resources to offspring as a function of the offspring's likelihood of reproducing. Genes in the current offspring have a greater interest in the current offspring than in future siblings and will be selected to maximize transfer of resources to the current offspring. Some genes can be imprinted with information about their paternal origin. This can create additional conflict if the mother has offspring from different fathers because paternally active genes in the current offspring have no stake in the offspring sired by other males. Haig's work addresses the influence of these conflicts on the evolution of the female reproductive system and how serious health problems for mothers, such as gestational diabetes and preeclampsia, can arise.

Adaptations as Decision Makers. (h2)

Adaptations can be anatomical, physiological, or behavioral. The beaks of Darwin's finches, often used to characterize the different species of finches living on the Galapagos, provide a classic example of an adaptation that is anatomical in nature (for review, see Grant & Grant, 2007). The dietary options available influenced the survival of birds of varying beak types and sizes, so that today we see finch beaks that are well suited to cracking large seeds in some

areas, whereas finches in other environments have beaks that take advantage of other food sources such as insects. But adaptations can also be understood in terms of processes that carry out the cost-benefit analyses an ancestral organism required to survive environmental challenges. For example, the fever adaptation can be described as a set of decision processes for dealing with certain types of invading organisms. If you are being invaded by bacteria M, raise your body temperature by X degrees. The increase in body temperature may be enough to destroy the invader, which is beneficial to the individual (which is why when fever is prevented by drugs, resistance to infection is lower). But the adaptation is not cost-free. It takes a non-trivial amount of energy to raise body temperature. Perhaps more importantly, and especially in young children, the rise in body temperature can damage other systems if it is excessively high and prolonged in duration (Williams & Nesse, 1991).

From a decision-maker perspective, adaptations can be seen as decision rules or mental mechanisms designed by natural selection for producing the different behaviors required for ancestral survival, growth, and reproduction. Buss (1999) has suggested the term “evolved psychological mechanisms” for the specialized information-processing mechanisms that organize experiences into adaptively meaningful schemas. These mechanisms focus attention, organize perception and memory, and recruit specialized procedural knowledge that leads to domain appropriate inferences, judgments, and choices when activated by a relevant problem.

Kinship and Human Psychology (h1)

Anthropologists have long recognized the importance of kinship to the study of human social behavior. One might have assumed the same of psychologists. And it is true that attention to the family has been paid in areas such as developmental psychology and counseling

psychology. However, it has been largely ignored in many other areas of psychology, including those areas in which its importance might have seemed obvious, such as social psychology [see Daly, Salmon, & Wilson (1997) for a discussion of the absence of the family in much of social psychology; see Burnstein, Crandall, and Kitayama (1994) and Michalski and Shackelford (2005) for examples of evolutionarily-informed social psychological research that takes kinship into account).

Although some areas of psychology do attend to the importance of understanding familial relationships and the roles they play in our lives, the majority have failed to recognize the relevance of the qualitatively distinct types of close relationships found within the family domain. A proper, evolutionarily-informed approach to a psychology of the family is by necessity a relationship-specific approach (Wilson & Daly, 1997). Humans, along with other species, have evolved specialized mechanisms for processing information and motivating behavior relevant to the specific demands of being a mate, father, mother, sibling, child, or grandparent. This type of evolutionary perspective on the nature of distinct family relationships provides an insight into our behavior that cannot be found elsewhere. Kinship is not one relationship. It is many different relationships. The challenges that face mothers are different from those that face fathers or siblings.

Relationship-Specific Adaptations (h1)

***Motherhood.* (h2)**

There is no more essential mammalian relationship than that between mother and offspring. It should not be surprising, therefore, that it may be the relationship with the most specialized anatomical, physiological, and psychological mechanisms. The demands of

motherhood go beyond conception, gestation, and nursing. Not all offspring are created equal. They are not all equally capable of transforming parental care and investment into the long-term success of parental genes. The result has been strong selection for the strategic allocation of maternal effort. The evolved motivational mechanisms that direct maternal investment decisions are sensitive to a number of offspring attributes, to the material and social situation, and the situation/condition of the mother herself (see Daly & Wilson, 1995, for a review).

However, mothers are not the only interested party. Offspring themselves have a role to play in shaping resource allocation. Parent-offspring conflict (Trivers, 1974) is a feature of sexually reproducing species because of the resultant genetic asymmetries in family relationships. A mother is equally related genetically to any two of her offspring, but each offspring is more closely related to itself than to a sibling (except in the case of identical twins). As a result, mother and offspring do not see eye to eye on the relative fitness value of other offspring or the allocation of maternal resources. This conflict over maternal resources provides an explanation for some puzzling aspects of mother-offspring interaction, such as weaning conflict (Trivers, 1974) and the dangerously high levels of substances of fetal origin that sometimes accumulate in the blood of pregnant women, including placental lactogen which up-regulates the fetus's access to maternal glucose stores, resulting in gestational diabetes (Haig, 1993, 2002). Such areas of conflict between parent and offspring are explored further in a later chapter (Salmon & Malcolm, this volume) as are parent-child relationships, more generally (Del Giudice & Belsky, this volume).

Fatherhood. (h2)

There are significant similarities between paternal solicitude and maternal solicitude, but there also are several substantial differences. Parents have been selected to assess offspring

quality and need, and for both fathers and mothers mechanisms motivating solicitude evolved to generate solicitude in relation to cues of the expected impact of any parental investment on the offspring's future success. Both father and mother have been selected to discriminate with respect to cues that the offspring is their genetic child. But it is true that for mammalian mothers the evidence is clear. If you gave birth to it, the baby is yours. For men, due to internal fertilization and relatively concealed ovulation, paternity is never certain (or wouldn't have been in our ancestral past). Putative fathers must depend on sources of information about the mother's likely fidelity, or the child's resemblance to his relatives or to himself. From this, one might predict that paternal affection will be influenced by paternal perceptions of resemblance. And, in fact, people do pay more attention to paternal resemblance than to maternal resemblance, with mothers and their relatives actively promoting perceptions of paternal resemblance (Daly & Wilson, 1982; Regalski & Gaulin, 1993). Issues of paternal investment are discussed by Anderson (this volume), and issues of investment by mothers and fathers in unrelated offspring are addressed by Volk (this volume).

Sibship. (h2)

An evolutionary perspective also can generate insight into our understanding of sibling relations (Mock & Parker, 1996). Hamilton's (1964) analysis of the evolution of sociality and altruism in haplodiploid insects had at its core the shared genetic interests of sisters in such species. But although siblings, our close genetic kin, can be major allies they also can be our fiercest competitors, especially for parental resources. The result is sibling relationships that are often somewhat ambivalent across the lifespan. Thomas Pollet (this volume) illuminates the cooperative and rivalrous nature of sibling relationships.

Grandparenthood. (h2)

Do we have adaptations designed specifically to deal with the problems faced by grandparental relationships? Or do these relationships merely co-opt adaptations for parenting? Postmenopausal women make significant contributions to the welfare of their grandchildren in many cultures (Lancaster & King, 1985; Sears, Mace, & McGregor, 2000). Thus, it is reasonable to suspect that mental processes specific to the allocation of grandparental investment may have been the targets of natural selection (Hawkes, O'Connell, Blurton Jones, Alvarez, & Charnov, 1998; Smith, 1988).

Euler and Weitzel (1996) noted that paternity certainty could influence grandparental investment (in addition to its impact on paternal investment). To test their hypotheses, they asked adults to rate the degree of grandparental solicitude they experienced from each of their four grandparents. The results were striking, indicating a strong link between relatedness/paternity certainty and solicitude. Maternal grandmothers were rated the highest on solicitude, followed by maternal grandfathers, paternal grandmothers, and finally paternal grandfathers. From a theoretical perspective, a maternal grandmother has the greatest certainty of her grandchild's relatedness to her. A paternal grandfather faces a different dynamic. He endures two relationship links that can be broken by nonpaternity: the grandchild might not be his son's child and his son might not be his own biological child (see also Michalski & Shackelford, 2005). Euler and Michalski (this volume) address the nature of grandparental and extended kin relationships.

Mateship. (h2)

Although mates are rarely close genetic relatives, their relationship is usually considered a family one with both parties having a shared interest in their joint offspring. The longer the duration of the union, the more likely that they share a similar perspective on the optimal allocation of resources. What is best for one is usually best for the other. But such a harmony of

interests can be shattered by extrapair relations. Studies of marital conflict and violence make this point clear. Suspected or actual infidelity is a powerful source of severe conflict and spousal violence (Daly & Wilson, 1988; Wilson & Daly, 1993; for recent reviews, see Goetz & Shackelford, 2009, and Kaighobadi, Shackelford, & Goetz, 2009). Step-relationships bring another factor into the mix. In this case, there is a child that is a potential vehicle of fitness for one partner but not the other. Both parties are aware of the asymmetry in relatedness (as contrasted to instances of female infidelity and subsequent cuckoldry) at the start or at least very early in their relationship. Nevertheless, stepchildren are at an elevated risk of neglect, abuse, and homicide (Daly & Wilson, 1988, 1995), a reminder that the motivational mechanisms of parental feeling are designed to preferentially direct affection and investment toward one's genetic offspring. Kermyt Anderson (this volume) discusses step-parenting, divorce, and parental investment in.

Daly and Wilson (1994) also have suggested that motivational differences produce different methods when it comes to how stepparents or genetic parents kill. Daly and Wilson found, in both Canadian and British national-level databases, that stepfathers were more likely than genetic fathers to commit filicide by beating and bludgeoning, a window into stepparental feelings of bitterness and resentment not seen in the same way in genetic fathers. Genetic fathers were more likely than stepfathers to commit filicide by shooting or asphyxiation, which often produce a relatively quick and painless death. Weekes-Shackelford and Shackelford (2004) replicated and extended these findings using a United States national-level database of over 400,000 homicides. They also identified similar differences in the methods by which stepmothers and genetic mothers committed filicide. Aaron Goetz and Gorge Romero (this volume) discuss

the nature and scope of family violence with particular attention to the role played by paternity uncertainty.

Kinship and Animal Psychology (h1)

When most people think about family, they think about their own relationships, their parents, siblings, and children, maybe cousins, aunts and uncles, and grandparents too. But we are not the only species that has families and for which kinship plays a significant role. Much of our understanding of human families and the mechanisms that influence family relationships was facilitated by the study of animal behavior and how animals invest in their own offspring (and sometimes in siblings or in the offspring of others). From work on the breeding success of birds, to the strategic allocation of reproductive effort to parenting or mating, to sibling competition and helpers at the nest, animal families not only are interesting in and of themselves, but also are important for the light they shed on human family relationships.

Animal Parenting. (h2)

Consider the killdeer, a familiar bird in the grasslands of America. It is perhaps best known for its predator distraction display used to protect its chicks. If a predator gets close to its nest, it will attempt to lure the predator away with a display of vulnerability, behaving as though its wing is broken. The energy cost may be low but there is a risk (part of the bird's investment) that the predator will make the parent killdeer lunch (Brunton, 1990). How easy it is to appreciate such parental protection, seeing the connection between that and the protective behavior of human parents as well as many other animals.

Although many species of animal, particularly some aquatic ones, make no parental investment after spawning, many do invest in their offspring. Among mammals, it is typically

the female who invests the most through provisioning and protection, although it is true that some males contribute significantly as well. Several chapters in the current volume address issues related to animal parenting, including Berman, and Salmon and Malcolm consider parent-offspring conflict over investment in both animals and humans.

Because animals sometimes behave nepotistically, engaging, for example, in cooperative grooming in Japanese macaques (Glick, Eaton, Johnson & Worlein, 1986) and in alarm-calling in Belding's ground squirrels (Sherman, 1977; alarm calling is done typically by females living near female kin), recognizing relatives has been a hot topic in animal family research. Do animals recognize each other as kin by frequency of contact? Phenotypic resemblance? Smell? The research in this area is brought to light in Hepper (the volume).

And like humans, not all family relationships are bright and rosy. Books on dealing with sibling rivalry between one's children abound, and in some animal species such sibling conflict is taken to Cain and Abel like heights with siblicide occurring in many species of birds. Siblicide in these cases has been interpreted as an adaptive strategy that benefits the surviving offspring and the parents, as grisly as this may seem (Mock, Drummond & Stinson, 1990; Mock & Parker 1997).

Fictive Kinship (h1)

When we refer to fictive kinship, we are focusing on relationships that appear to be modeled on those of genetic kinship. Godparents or blood brothers are examples many readers will be familiar with. The focus is on relationships that are kin-like but that are not defined by actual genetic relatedness. In many cases, these relationships may replace missing kin relationships and co-opt the adaptations designed to manage those of genetic kinship. How many

people have heard people refer to their pets as their babies? Many people treat their pets like children, buying them toys and treats, showing them with affection and investment. The special bond between people and their pets is addressed by Archer (this volume) and Paul and Serpell (this volume).

Friendship is often treated as a special form of kinship. Close girlfriends may refer to each other as sister, and birthday cards for female friends contain phrases such as “You’re like a sister to me.” Ackerman and Park (this volume) reflect on the connections between kinship and friendship. Others have pointed out that cues of kinship influence the way we interact with others. Cues of kinship can make us more likely to cooperate with others (as discussed by Krupp and DeBruine, this volume) and appeals to the shared interests of kinship (“My brothers and sisters...”, “For he who sheds his blood with me today shall be my brother.”) have been used over and over again in political and rhetorical speech (Salmon, 1998; Johnson, 1987). In this volume, Hector Qirko touches on how the power of fictive kinship plays a role in our lives today.

Conclusions

This volume is intended to illustrate the many ways in which an evolutionary perspective on the family can contribute to our understanding of behavior, not only our own family relationships but also how our evolved psychological mechanisms influence how we react to friends, allies, and our pets. We also hope that it provides insight into the kinship psychology of animals and how similar (and at times different) they are in comparison to our own kinship psychology.

Much of the pleasure and pain of family life has been with us over the course of human evolutionary history. Our modern behavior is the product of our evolutionary response to the pressures of living as a social species just as the behavior of other social animals is a product of

such pressures. The next three chapters in this opening section of the volume, by Mark Flinn, Doug Mock, and Bernard Chapais elaborate on the benefits of bringing an evolutionary perspective to the study of human and animal families. In our final chapter, we return to a consideration of the future of evolutionary approaches to the study of family relationships.

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