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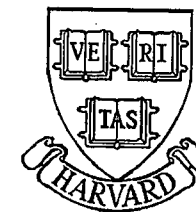
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# HARVARD VISION

STUDENT ESSAYS  
ON OUR COLLECTIVE FUTURE



Volume V

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*Editor*

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## Monkey Marriage and Human Utopias

Michael L. Wilson

The significant history of our times . . . is the story of the growing weakness of the family.

—Skinner, *Walden Two*

"You do know what Polish is, I suppose?"

"A dead language."

"Like French and German," added another student, officiously showing off his learning.

"And 'parent'?" questioned the D.H.C.

There was an uneasy silence. Several of the boys blushed. They had not yet learned to draw the significant but often very fine distinction between smut and pure science. One, at last, had the courage to raise a hand.

"Human beings used to be . . ." he hesitated; the blood rushed to his cheeks. "Well, they used to be viviparous."

—Huxley, *Brave New World*

The latest Star Trek movie, *First Contact*, is concerned with the foundation of a utopian future for human beings: the world of the *Enterprise*, in which social injustice, poverty, war (at least among humans) and other evils of

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our time have been eradicated. As Captain Jean-Luc Picard explains to a bewildered woman from Earth's twenty-first century, money is no longer used; instead, people altruistically devote themselves to the common good. Since *Star Trek* focuses on the adventures of the crew of a quasi-military spaceship, we get only hints of what this utopia is like for ordinary people. Moreover, this bright future is made possible only by the help of wise and friendly aliens; the creators of *Star Trek* may not view it as a realistic option for humanity.

Earlier ventures in speculative fiction give us a more thorough vision of what the future might hold for us. In particular, Aldous Huxley's *Brave New World* and B. F. Skinner's *Walden Two* present vivid, detailed depictions of how utopia might be achieved and what it might be like to live there. Huxley wrote his book as a warning; he worried that utopias were now eminently possible and that they would be horrible, dehumanizing places. Skinner imagined a utopia not so different from Huxley's, but considered it an earthly paradise rather than a nightmare. In both worlds, human happiness is achieved by shaping human behavior through psychological conditioning. In order to create uniformly happy people, children are reared communally, with their entire education overseen by trained behavioral technicians. As both Skinner and Huxley foresaw, utopia demands that the state control not only the means of production, but also the means of reproduction. Family ties get in the way, and must therefore be eliminated.

Why family ties really do matter for humans depends upon our evolutionary history. I will therefore discuss the utopian visions of Skinner and Huxley in light of what we have learned about our evolutionary cousins, the monkeys and apes. Thousands of utopias have been imagined, for many centuries before and after Sir Thomas More coined the word to describe his own imagined society. Moreover, a great many utopian communities have actually been attempted, especially in the last two centuries (from Oneida, New Harmony, and Amana in the nineteenth century to Hog Farm, an actual Walden II, and the Israeli kibbutzim in the twentieth). This essay will not attempt to describe or do justice to the immense diversity of utopias, imagined or attempted. Instead, the word *utopia* will refer mainly to the worlds envisioned in *Brave New World* and *Walden*

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*Two*, as these worlds exemplify some of the twentieth century's most pervasive notions about what an ideal society could or should be.

A particular urgency pervades both books, for when Huxley and Skinner were writing, utopias were no mere flights of fancy. Entire nations were attempting human experiments on a vast scale. Huxley published *Brave New World* in 1932, fifteen years after the Russian Revolution, at a time when the Soviet Union was apparently flourishing while the capitalist world suffered the throes of global depression. Skinner wrote *Walden Two* in 1948, (incidentally, the same year that Orwell wrote *1984*). Nazi Germany had only just been defeated, the Soviet Union was tightening its grip on Eastern Europe, and Mao's troops were taking control of China. The world may well have seemed on the verge of becoming a utopia.

We live in more pragmatic times. The command economies created earlier this century are dismantling or relaxing state controls in a scramble to join the global market economy. Utopian ideologies motivate few rebellions and even fewer governments; increasingly, governments either adhere to or at least pay lip service to liberal, democratic, industrial capitalism. Of course, American-style industrial capitalism worried Huxley at least as much as Soviet-style social revolution. *Brave New World* is in many ways a nightmare of a Hollywood vision of America—towering skyscrapers, ever youthful beautiful people playing games, dancing to Sexophone music, and enjoying glib romance in a world of mass produced attitudes and assembly-line human beings. Huxley's characters have names such as Marx, Lenina, and Trotsky, but it is Henry Ford who is deified. So even though talk of utopia is less fashionable today, we may nevertheless be creating such a world. What will our future be like? Will we create a world like the nightmares of Huxley or the dreams of Skinner?

The utopias envisioned by Huxley and Skinner both depend on a particular view of human nature. The paramount importance of psychological conditioning in both utopias suggests that Huxley and Skinner both viewed human beings as eminently flexible. Although Huxley's utopians clone fetuses and treat them with various drugs, hormones, X-rays and such to create antlike social castes, and although the drug *soma* is

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widely distributed to keep people happy, psychology maintains the paramount role in shaping citizens' behavior. Skinner's utopia depends almost solely on behavioral science to make a happy and well-ordered citizenry.

Is psychological conditioning really so powerful, or is there a core human nature that might resist such molding? And if there is such a core, what is it like? Culture can change with astonishing speed. But are there limits to change? Is human nature hard and brittle stuff that snaps if bent too far, or is it clay to be shaped however we will?

The findings of scientists studying behavior from an evolutionary perspective suggest that human nature is the product of more than cultural conditioning. The way we are today depends very much on our evolutionary history. Throughout the world, amidst the great diversity of cultures, human social organization follows a distinctive pattern. Such traits as marriage and extensive parental care by both sexes are ubiquitous. Rather than being mere social constructs subject to willful reshuffling by social planners, human patterns of sexual and parental behavior are at the heart of human psychology. The keen interest people take in their mates and in their children may undermine the possibility of realizing a *Brave New World* or *Walden Two*.

In discussing the biology of human nature and its relation to utopia, I do not intend to argue that a better society is not possible. Instead, I think that our most powerful visions of utopia are flawed, and that by understanding those flaws, we might be able to build better societies without destroying what is best in humans. In particular, the belief in infinite plasticity of human nature leads to consequences that horrified Huxley and delighted Skinner. Comparing humans to other animals, particularly to other primates, and examining social relations in the light of evolutionary theory can help us find what is distinctive and consistent in human nature, help us explain why people act and feel the way they do, and help us plan for the future.

Questions about the nature of human nature lie at the heart of many academic disciplines. Anthropology, in particular, has served as a forum for people hoping to answer such questions; and in the process, anthropology has become a house divided

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by bitter controversies over different sets of claims as to what the answers might be. Predictably, cultural anthropologists emphasize the importance of culture, and biological anthropologists emphasize the importance of biology. In many ways, the dispute is a rehashing of the old and sterile nature-nurture controversy. Neither sort of determinism, biological or cultural, seems an especially illuminating ideology. Most behavioral biologists would agree that for humans and other organisms, behavior results from a complex interaction between an organism's genes and the environment it experiences.

I would like to explore the implications of behavioral biology for the possibilities of human behavior, while acknowledging that human beings are remarkably flexible creatures whose societies will continue to change in ways that will surprise us and confound our expectations. A socially conservative sociobiologist of 100,000 years ago might have argued that humans are, as a species, incapable of large-scale cooperation, that humans were doomed to live in a patchwork of mutually hostile tribes. Nation states of over a billion people or international alliances spanning much of the globe would have been unthinkable. The world changes.

The science of behavior is still very primitive. We know very little about the genetic bases of behavior, or how behavior develops, or how behavior is constrained. People have been paying careful attention to the natural behavior of animals for a mere sixty or seventy years, the number of such scientists has always been small, and the study of complex genetics is still in its infancy. Nevertheless, researchers of behavior have gained significant insight through the applications of evolutionary theory.

Biology imposes significant and pervasive constraints on human life. We are born, we grow, mature, age, and die. Medical technology has raised average life expectancy considerably, but has had little effect on maximum life span. In addition to shaping our bodies, biology shapes our minds, and hence our behavior, in ways we are only beginning to understand. In order to understand human behavior, we must understand animal behavior. We take so much of our own behavior for granted that we simply do not realize how unusual humans are until we spend time watching closely the behavior of other animals.

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Watching primates—monkeys and apes—is an excellent way to unsettle assumptions about the normalcy of human behavior. With their human-like faces and hands, familiar facial expressions, body postures and gestures, monkeys and apes look so much like us, but they behave so differently. For instance, when a chimpanzee female is in estrus, she typically mates with as many males as she can. She makes the rounds, copulating with one male after another, calling loudly at the conclusion of each copulation. As her time of maximum fertility approaches, the males may compete for access to the female, but early on in her cycle, no one seems to care much. Although people engage in varying degrees of promiscuity, it would be highly unusual for a woman in any culture to exhibit behavior that is perfectly normal for a chimpanzee, unless she is paid a considerable sum for it. Imagine sitting in a lecture hall while one of your classmates casually makes the rounds, mating with every available male, with nobody making a fuss about it.

As people began to study carefully the behavior of wild animals, they found that the behavior of each species differs in important ways. Although we do not expect people to act like chimps, it would be just as startling to gorillas if a gorilla female started acting like a chimp. Species differ not only in how they look and what they eat, but in details of their mating patterns and social structure. People are no exception to this.

For instance, people around the world fall in love and marry. Marriage takes many different forms: in much of Africa and the Muslim world today, men may legally marry more than one wife, and in parts of Tibet, a woman may marry two brothers. Members of royal families in Europe and young people in many "traditional" societies submit to arranged marriages. Love and marriage may go hand in hand, but often do not; spouses may detest each other or love one another, but fall in love with others as well. And in every society, some people never marry. Nevertheless, people everywhere do marry, whereas savanna baboons do not.

This may seem like a silly comparison: why does it matter if baboons don't marry? Many academics would argue that *no* animals marry, that marriage is a distinctively human practice determined by culture. Nevertheless, if marriage is defined operationally as long-term sexual bonding, it is clear that while

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many animals do not marry, many others *do*. Several bird species form long-term sexual bonds, as do a minority of mammal species. And although savanna baboons do not marry, hamadryas baboons do.

In savanna baboons, females live with their female kin. Daughters stay with their mothers and sisters in the group of their birth, their natal group. Males, however, typically leave the group at adolescence. As a young male baboon reaches sexual maturity, he usually finds himself in a group with few mating opportunities. Many of the females are close kin, and like most wild mammals, baboons avoid mating with close kin. A young male therefore leaves the group of his mother, sisters, and aunts, and wanders across the savanna, looking for other groups to join. A male may live in several different groups in his adult life; or he may get eaten by a lion or a leopard during the dangerous time of living alone without a group. Within a group, males fight one another to gain higher rank. Higher ranking males tend to have a better chance of mating. Recent genetic study of wild baboons has shown that higher ranking males tend to have more offspring (Altmann et al. 1996). Nevertheless, the highest ranking male does not monopolize matings; females generally mate with several males. Females are choosy and maintain friendships with particular males, but they do not establish long-term sexual bonds.

Hamadryas baboons are so closely related to savanna baboons that some authorities consider hamadryas and savanna baboons subspecies of a unified baboon species. Still, hamadryas baboons live in a dramatically different social system, as Swiss primatologist Hans Kummer and his colleagues discovered during many years of studying wild hamadryas baboons in Ethiopia. Hamadryas males do not leave their natal groups; instead, as they mature, they gather a harem of females, which the male jealously guards. Hamadryas females do not live among a supportive network of kin; instead, they live with unrelated females in the harem of a single male. Females have few opportunities for mating with other males, for not only does the hamadryas husband keep close watch on his wives, but also other hamadryas males respect the marriage bond. Though "sneaky" copulations do occur, the overall relations between the sexes differ greatly from those of savanna baboons.

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Savanna baboons are perhaps the most widely distributed primate species, after humans. They live all over the vast expanse of sub-Saharan Africa, apart from the densest equatorial rainforests. Everywhere savanna baboons have been studied, they behave in pretty much the same way. Hamadryas baboons live in a much more restricted area: the deserts of Ethiopia, Somalia, and the Arabian peninsula. Although hamadryas have been studied thoroughly only in Ethiopia, Kummer has observed them in Arabia as well, and Arabian hamadryas live much the same way as their relatives across the Red Sea. Although our understanding of genetics is too limited to explain just which genes are responsible for the differences between species or subspecies, it is clear that the differences must be genetic. Savanna baboons living in the same deserts as hamadryas still behave like savanna baboons, and unlike hamadryas females, savanna baboon females introduced to hamadryas males refuse to be bossed around by the harem male.

The social structure of our close relatives seems very much determined by genetics. And despite the great diversity of human societies, humans too can be described as having a distinctive social organization. If human nature is entirely a social construct, then presumably any sort of human society would be possible—we would expect to find some people living like gibbons (isolated monogamous pairs, hostile to all others but their young children), some like orangutans (solitary wanderers), even some like ants (single reproductive queen aided by thousands of sterile offspring). But we do not.

Human societies begin to look less diverse when compared with the societies of other primates. As Rodseth et al. (1991) show, humans everywhere live in a distinctive sort of society, different from that of any other primate: conjugal families in communities, with both sexes maintaining relations with kin. As with other species, there is variation: just as a male gorilla may spend part of his adult life living in a bachelor troop, a human male may spend part of his life as a hermit or living in a remote monastery. If the silverback of a group dies, the females and their children may live without an adult male for some time; likewise, some women live in remote nunneries. Nevertheless, each species can be characterized as having a typical or modal form of social organization. Wherever gorillas

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have been studied, the typical group is the harem, and wherever humans have been studied, the typical group is the community, comprising families, with long-term sexual bonds between males and females.

Relatively exclusive long-term sexual bonds are important in humans because humans mature slowly and require extensive, prolonged parental care. Such a pattern is not unique; in many bird species and a smaller number of mammal species, successful rearing of young requires a large investment from both parents. What makes humans particularly unusual is that such families must maintain themselves within a larger social group. Both sexes meet with frequent opportunities for sexual infidelity. Animals have a limited amount of resources available to them and should therefore make every effort to care for offspring only if the offspring are likely to be theirs. Female mammals know who their offspring are, but male mammals are typically less sure. In species where males contribute significant parental care, males do their best to make sure that the offspring actually belong to them. Long-term sexual bonds, mate guarding, and sexual jealousy are all part of a pattern to ensure paternity certainty and paternal commitment. Because male savanna baboons give very little paternal care, a female savanna baboon can mate with any number of males without fearing loss of paternal care. A female human, however, depends greatly on the support of her mate. Mating with multiple males, therefore, becomes a risky business.

Evolutionary theory predicts that animals behave in a genetically selfish manner. An animal's first concern is to reproduce its genes: for most animals, this means finding a mate, mating, and (depending on the species) caring for the offspring until they are old enough to look after themselves. Because an animal shares genes with its close kin (by definition), helping kin is genetically selfish, in direct proportion to the closeness of the relation.

The predictions of evolutionary theory are supported by field studies of animal behavior. Animals that live in groups often help one another, but they are much more likely to help kin than non-kin. Primates, for instance, often spend a great deal of time grooming one another, cleaning hard-to-reach places of the fur and skin, removing ticks and other disease-carrying

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parasites. Grooming in a primate society is not random; instead, grooming follows lines of kinship and social relations. In savanna baboons, related females groom one another more than unrelated females. Hamadryas females, who are usually unrelated, rarely groom one another, even though they spend most of the day quite close together.

In savanna baboons, females grow up surrounded by kin, a ready source of allies. If a female gets into a fight, her mother, sisters, and aunts rush to her aid. In certain species in which females live with their female kin, males have more difficulty dominating females. Hamadryas baboons, however, form a species in which females live with unrelated kin, alliances between females are less likely, and males are more able to dominate females. Additionally, patterns of intergroup aggression typically depend on kin relations. In chimpanzees, for instance, males stay in their natal groups, whereas females transfer to new groups at adolescence. When chimpanzee groups fight, it is the males who join together to attack the enemy group; females typically stay out of the fray. In species in which the males transfer and females stay with their relatives, however, fights between groups are often the business of females.

In humans, baboons, and other social species, kin groups provide natural allies against other powers, including other kin groups or a strong central state. When kin groups become powerful, however, they work to accumulate resources and power at the expense of other kin groups. Kin groups such as Mafia clans, royalty, and aristocratic families band together to secure resources and defend them against the rest of society. People working towards egalitarian ideals have devoted great effort to decreasing the power of such kin groups in order to obtain a more just distribution of resources and power.

Obviously, human social relations are not dictated solely by blood ties. In a university community, for instance, most people live far from their close kin and interact daily with non-relatives in peaceful and often mutually beneficial ways. And although humans are among the most socially cooperative of vertebrates, they are not unique in their ability to transcend kin ties. Baboons, for instance, form friendships and alliances with unrelated individuals. Nevertheless, humans, like other

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animals, follow the predictions of Darwinian theory to a startling degree.

For instance, Frazier, the founder of Walden Two, proclaims that "foster children and stepchildren are loved as dearly as one's own. Love and affection are psychological and cultural, and blood relationships can be happily forgotten" (Skinner 1948:118). The willingness of humans to invest parental care in foster or stepchildren is indeed remarkable. Nevertheless, Daly and Wilson (1988: 89) have shown that in America, children living with a stepparent are up to a hundred times more likely to be fatally abused than a child living with its natural parents.

Such preference for kin is anathema to Utopia. Frazier proclaims the decline of the family and emphasizes the weakening of family ties as a primary mission of his community. Only by disintegrating the biological family can a universal brotherhood be achieved: "Our goal is to have every adult member of Walden Two regard all our children as his own, and to have every child think of every adult as his parent." Although couples are allowed to marry and have children, babies are cared for communally rather than by families: "Group care is better than parental care . . . . Home is not the place to raise children" (Skinner 1948:117). *Walden Two's* babies are placed together in glass aquarium-like structures for the first year of life, where temperature and humidity can be controlled. *Brave New World's* babies are fertilized and grown in bottles, decanted, and reared in the Central London Hatchery and Conditioning Centre. In both Huxley and Skinner's worlds, older children are reared together by trained behavioral scientists, who use experimentally tested conditioning methods to mold their psychology, ridding the children of emotions such as jealousy and envy. In *Walden Two*, parents are permitted to spend time with their children, but "we have made it bad taste to single out one's own child for special favors," and Skinner (1948:117) makes it clear that the eventual goal is getting rid of family ties entirely. Thanks to artificial womb technology, this has been accomplished in *Brave New World*.

Destroying family ties is a natural progression towards a completely egalitarian society. Although nuclear families are not nearly as effective centers of power as the extended families

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of aristocracies and Mafia clans, nuclear families still transmit language, culture, religion, politics, and various attitudes about society. If these functions were taken over by the state, the state would be free to shape people as it chose. Language, for instance, divides people, and an ideal global state would be monolingual. In *Brave New World*, English is spoken throughout the world. Polish, German, French, and presumably all other languages have gone extinct, except in scattered reservations for savages, where a few languages such as Zu-i persist. Religion and politics are clearly disruptive to utopia, and in both Huxley and Skinner's worlds, such matters are controlled entirely by the state.

Skinner and Huxley were both impressed with the apparent success of psychology in shaping behavior. Skinner saw psychological conditioning as a means to creating a society of happy, free, creative people; Huxley saw conditioning as the means to totalitarian control and destruction of what is best in human beings. Even so, in both *Walden Two* and *Brave New World*, the states are relatively benign—the leaders believe they are working for human happiness. A less benevolent state could carry out any number of sinister programs. A state that controlled reproduction, for instance, could eliminate any elements in society considered "undesirable." In a single generation, such a state could accomplish, without bloodshed, a feat which eluded the Third Reich even after the deaths of millions.

The weakening of family ties need not be commanded from above; the preconditions to utopia may already be emerging. American society is growing more mobile; the free movement of goods and people demanded by industrial capitalism has created an increasingly fragmented people with little sense of community. Extended families matter less and less to people, and nuclear families seem increasingly difficult to maintain. Relations between men and women are changing dramatically. Old marriage patterns depended on an extreme division of labor and power within the marriage, which in turn depended on a close link between sexual and reproductive activity. As birth control technology gave women increased control over their reproduction, struggles for social equality have enabled more women to participate in social roles that had been monopolized by men. Economically independent women do not necessarily

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need men to raise babies; and women on the Pill do not need to rear babies at all. Skinner (1948: 114) saw these trends fifty years ago:

The significant history of our times . . . is the story of the growing weakness of the family. The decline of the home as a medium for perpetuating a culture, the struggle for equality of women, including the right to select professions other than housewife or nursemaid, the extraordinary consequences of birth control and the practical separation of sex and parenthood, the social recognition of divorce, the critical issue of blood relationship or race—all these are part of the same field. . . .

If anything, these trends have accelerated since Skinner's time. In theory, there is no reason for marriage to continue. In theory, it would be very easy for our society to become a brave new world, where everyone belongs to everyone else, where sex is a simple pleasure exchanged among friends, and the burdensome work of child care and eventually pregnancy as well is yielded to the state. Perhaps the only thing to keep this from happening will be people's deep-seated genetic selfishness: people still want to have children, and they want to give their own children whatever advantages they can. If the state controlled child care completely, parents would not be able pass any of their resources or expertise along to their children. At any rate, men and women continue to form relatively exclusive, long-term sexual bonds, with the hope that they will stay together long enough to rear children. Many marriages do not work, but people still try.

If human behavior is infinitely flexible, the possibilities for totalitarian control are also infinite. The nature of human nature remains an empirical question; just because baboons or other species act in a particular way does not mean that humans must act that way as well. Nevertheless, a growing body of evidence indicates that human behavior is not infinitely flexible. In particular, people everywhere maintain a strong interest in blood ties and long-term sexual bonds. Society will continue to change in ways we cannot even imagine now. Nonetheless, I expect that people will continue to marry, and parents will still love their own children more than others. Genetic selfishness will keep parents from yielding control of reproduction and child rearing to the state. Our biological heritage may thus ensure that utopia remains what it means in Greek—"nowhere."



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If not utopia, then what? Thanks to our particular evolutionary heritage, people everywhere value close ties to kin and spouses. People want their marriages to last, and they want to take care of their own children. Nevertheless, it seems much more difficult to do so now than in the past, and such trends seem likely to continue. America, in particular, has long been a highly mobile society, and if anything, that mobility appears to be increasing. If these trends continue, people will be even less likely to live near kin. Complex histories of divorce and remarriage will lead to less cohesive relations within nuclear families and an increasing irrelevance of extended families. Men and women will continue to grow less dependent upon one another for economic and domestic support. Accordingly, more people will live alone longer, before marriage, between marriages, and in old age.

Some factors that might mitigate the centrifugal forces of society include improved communications technologies, such as e-mail and the Internet, which let people maintain valued relationships, even when separated by thousands of miles. Thanks to such technologies, growing numbers of men and women will be able to work at home, allowing fathers and mothers to spend more time with their children and with each other. Cars, highways, and telephones have already made compact cities obsolete. Perhaps the World Wide Web and its successors will make suburbs obsolete as well. More people will then live where they want to, rather than where they have to. We may see a resurgence of real communities, with people living close to friends and family, along with a blossoming of virtual communities, in which distance loses its power to separate.

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