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The Concept of Partible Paternity among Native South Americans

Stephen Beckerman and Paul Valentine

The Doctrine

Inhabitants of the modern Western world are well aware that each child has one biological father and one only. We know that, in sexually reproducing organisms, only one sperm fertilizes the egg, and we know this rule holds for people as well as penguins. The doctrine of single paternity, as a folk belief, goes so far back in Western history and is so extended through our social and legal institutions that it is difficult for us to imagine that anyone could entertain any other view of biological paternity. Nowhere in all the begets of the Bible do we find any hint that a child might have more than one father. Aristotle (1992, 53-54) offers no suggestion that a human child might have multiple fathers – although he does hold out that possibility for birds. The Law of the Twelve Tables, the oldest surviving codification of Roman law (451 B.C.), clearly assumes that a child is the product of a single biological father:

The Twelve Tables of Roman Law (451 B.C.)

1. Monstrous or deformed offspring shall be put to death
2. The father shall, during his whole life, have only and absolute power over his legitimate children. He may imprison the son, or scourge him, or work him in the fields in fetters, or put him to death, even if the son has held the highest office of state. He may also sell the son.

3. But if the father sells a son for the third time, the son shall be free of the father.
4. A child born within ten (lunar) months shall be judged a legitimate offspring of the deceased husband. (Harvey 1986)

It is a bit chastening to realize that conclusive *scientific* evidence for singular paternity, for what we can call the One Sperm, One Fertilization Doctrine, is only a little over a century old. Gregor Mendel obtained experimental evidence around 1870 that a single pollen grain introduced into an ovule produced a well developed seed. In 1879, Hermann Fol published evidence of experimentation and microscopic observation demonstrating that in animals “[f]ertilization is always effected by a single spermatozoon” (Mayr 1982, 666).

Before the end of the nineteenth century, although Western law and custom assumed that each child had a single biological father, that premise was simply a folk belief, resting on other folk beliefs about how babies are made and what the mother and the father contribute-beliefs that seem quaint to us now. Nevertheless, fanciful as these ideas may appear in detail, they had the effect of getting it right insofar as the big question. Biological paternity is singular. Fertilization is a unitary event and copulations after the moment of conception do not contribute anything to the developing fetus. Each child does have only one biological father.

This happy coincidence of folk doctrine and biological reality within our own intellectual tradition has not been without its unfortunate consequences. It has made it easy for us to presume that our folk beliefs concerning fertilization, conception, and fetal development must be everyone’s folk beliefs, inevitable and universal. The presumption has channeled and perhaps constrained our thinking about both the biological and the social aspects of paternity. As the articles in this volume demonstrate, other peoples have started from different premises. In this introduction we treat first the biological and then the social anthropological implications of our faith in the One Sperm, One Fertilization Doctrine; then we discuss the articles themselves. Under each rubric we point out the objections to our Western belief posed by the articles gathered in the volume.

Biology

Most modern scenarios for human evolution invoke paternity certainty as one of the elements leading from African hominids to modern *Homo sapiens*, along with the sexual division of labor, food sharing, lengthy juvenile dependency,

and continuous sexual receptivity. The idea is roughly that men provision women and their children with foods that the women cannot obtain on their own, because they are burdened with dependent children. Men are willing to share their food because the women, faithful to their mates, provide the men with a high degree of paternity certainty. When a man brings his game home to his woman, he can reliably assume that the children it feeds are his own (Alexander and Noonan 1979; cf. Washburn and Lancaster 1968.) This scenario, now two decades old, is sometimes called the Standard Model of Human Evolution. It remains the dominant version of the story of the evolution of food sharing and the human family. For instance, in a recent text on human evolution R. Boyd and J. Silk discuss *Homo erectus*: “Prolonged dependence of infants and the reduction of sexual dimorphism may be linked. Females may have had difficulty providing food for themselves and their dependent young. If *H. erectus* hunted regularly, males might have been able to provide high quality food for their mates and offspring. Monogamy would have increased the males’ confidence in paternity and favored paternal investment” (1997, 435). When roughly similar arguments are made for nonhuman animals with biparental care, such as many birds, the male provisioning behavior is presumed to be invoked by proximate cues that indicate a high probability of paternity. There is no need to raise the issue of awareness of how babies are made. However, when the Standard Model is summoned for human beings, then lurking somewhere behind the model is the notion that the men in question are more or less conscious adherents of the One Sperm, One Fertilization Doctrine.

Versions of the Standard Model, with its implicit reliance on the One Sperm, One Fertilization Doctrine, are apparently behind statements in two recent books touching on human nature that take our common Western view of paternity as universal. Steven Pinker, for instance, writes in *How the Mind Works*:

“Sexual jealousy is found in all cultures.... In most societies, some women readily share a husband, but in no society do men readily share a wife. A woman having sex with another man is *always* a threat to the man’s genetic interests, because it might fool him into working for a competitor’s genes” (1997, 488-90; italics Pinker’s). Even more recently, Edward O. Wilson, in *Consilience*, argues that evolutionary theory predicts that “[t]he optimum sexual instinct of men, to put the matter in the now familiar formula of popular literature, is to be assertive and ruttish, while that of women is to be coy and selective. . . . And in courtship, men are predicted to stress exclusive sexual access and guarantees of paternity, while women consistently emphasize commitment of resources and material security” (1998, 170).

These views of universal human nature, as well as the male-female bargain behind the Standard Model of Human Evolution, are called into question by decades of ethnographic research among tribal peoples in lowland South America. Some of the older work is cited in this introductory essay. Recent findings, particularly those directed to the issues raised here, are reported in this volume. This work, old and new, has made two relevant findings about a substantial number of lowland South American societies. First, the people of these societies have a different doctrine of paternity, one that allows for a child to have several different biological fathers. Second, these people act on that doctrine in such a way as to confute such statements as Pinker's that "in no society do men readily share a wife."

In addition to the societies discussed in this volume, there are quite a few other societies in lowland South America where the idea that paternity is partible, that more than one man can contribute to the formation and development of a fetus, has been reported. These societies are dispersed over much of the continent, and represent many different languages and language families.

For instance, among the Mehinaku of Brazil, speakers of a language in the Arawak family, Thomas Gregor found two theories of conception: "Both theories assert that one sexual act is insufficient to conceive a child. Rather, the infant is formed through repeated acts of intercourse. Since all but three of the village women are involved in extramarital affairs, the semen of the mother's husband may form only a portion of the infant.... Joint paternity is further recognized at birth when the putative fathers of the baby honor attenuated versions of the *couvade* and accept some of the obligations of in-laws when the child grows up and gets married" (1985,84).

The existence of these ideas is not a recent discovery. Jules Henry clearly encountered the concept of joint or partible paternity among speakers of a language in the Ge family when he worked among the Xoc Leng (previously known as the Kaingang) in 1933, although he may not have fully recognized what he found:

"Klendó's daughter, Pathó, is my child," said Vomblé. "How do you know," said I, "since Klendó also lay with her mother?" "Well, when two men lie with a woman they just call her child their child." But not only do men feel that their mistress's children are their children, but people whose mothers have had intercourse with the same man, whether as lover or husband, regard one another as siblings. (1941, 45)

Also in Brazil, but to the north of the Mehinaku and Xoc Leng, and in a different language family, Eduardo Viveiros de Castro records that among the

Tupi-Guaraní-speaking Araweté, “it is difficult to find someone who has only one recognized genitor” because “more than one inseminator can cooperate .. or take turns in producing a child.... The ideal number of genitors seems to be two or three” (1992, 142, 180).

The Tapirapé are another group of Tupi-Guaraní-speaking Brazilian Indians, living hundreds of kilometers to the south of the Araweté. Charles Wagley reports that among them “intercourse had to continue during pregnancy, but it did not need to be with the same male. All men, however, who had intercourse with a woman during her pregnancy were considered the genitors, not merely the sociological fathers of the child. It thus often happened that a child had two or three or more genitors” (1977, 134).

Still further to the south, another society of people speaking a Tupi-Guaraní language, the Ache of Paraguay, have similar ideas:

A man (or men) who was frequently having intercourse with a woman at the time when ‘her blood ceased to be found’ is considered to be the real father of her child.... These primary fathers are most likely to be the ones who take on a serious parenting role.... Secondary fathers are also generally acknowledged and can play an important role in the subsequent care of a child.... Secondary fathers include all those men who had sexual intercourse with a woman during the year prior to giving birth (including during pregnancy) and the man who is married to a woman when her child is born. (Hill and Hurtado 1996, 249-50)

Thousands of kilometers to the north, J. Hurault writes of the Wayana, Carib speakers of French Guyana: “Selon la croyance des Wayana ... le mari et l’amant ont tous deux contribué a la conception de l’enfant” (According to the belief of the Wayana... the husband and the lover have both contributed to the conception of the child) (1965, 53).

West and south of the Wayana, A. Ramos and B. Albert report on the Sanuma of Brazil, who speak one of the four Yanomama dialects: “According to the ideology of conception, a woman may have intercourse with more than one man around the time she becomes pregnant and all these men are said to contribute to the formation of the fetus” (1977, 77).

In addition to these published cases, Robert Carneiro writes that “the Kuikuru [of Brazil; speakers of a Cariban language] have that concept as well, and they believe that the more men a woman has sexual relations with during pregnancy the better. That way, *fagi*, a spirit sculptor who enters a pregnant woman’s uterus, can have more semen to work with in building up and giving shape to the fetus. This explains perfectly reasonably, for them, how it is that a

child can have several biological fathers” (pers. comm., February 20, 1998). The baker’s dozen of additional cases reported in this volume can be added to the above examples.

If these beliefs were found in only a tribe or two, one might be tempted to write them off as no more than ethnographic curiosities, or even maladaptive delusions, destructive cultural mistakes of the same stripe as the millenarian movements that sometimes persuade peoples – and not just tribal peoples – to abandon their homes and crops to await the end of the world or the coming of a paradisiacal age when all want and injustice is going to be supernaturally rectified. There are clearly some cases in which cultural beliefs promote biologically self-destructive behaviors. Even if the belief in partible paternity were confined to several tribes in a single cultural tradition, one might be able to make a plausible argument that this doctrine is a sort of ideological aberration or pathology.

However, the frequency and distribution of the idea of partible paternity shows that the doctrine is common throughout an entire continent; and that it is found among peoples whose cultural traditions diverged millennia ago, as evidenced by the fact that they live thousands of kilometers apart, speak unrelated languages, and show no indication of having been in contact with each other for many centuries. It is difficult to come to any conclusion except that partible paternity is an ancient folk belief capable of supporting effective families, families that provide satisfactory paternal care of children and manage the successful rearing of children to adulthood. The distributional evidence argues that it is possible to build a biologically and socially competent society – a society whose members do a perfectly adequate job of reproducing themselves and their social relations – with a culture that incorporates a belief in partible paternity.

Indeed, this argument from the geographical distribution of the belief in South America is strengthened by the tantalizing indications in the literature that a belief in partible paternity is not confined to South America, but crops up in other parts of the world as well. A decade and a half ago, Counts and Counts published a report on the ideology of the Lusi of West New Britain Province, Papua New Guinea:¹ “The notion that the foetus grows as a result of multiple acts of intercourse seems to prevail, for the Lusi – even the young people who assert that only one act is required – generally agree that it is possible for a person to have more than one father” (1983, 49). All these findings seem all the more expectable in the light of recent calculations by Wyckoff, Wang, and Wu (2000), which are compatible with the proposition that a good deal of human

evolution may have been marked by a reproductive pattern in which semen from multiple mates may have been present at the same time in the female reproductive tract. Indeed, even in the present day there is reason to inquire whether belief in partible paternity may not provide some advantages that are lacking in cultures whose theories of conception are limited to plain-vanilla single paternity. There are a couple of ethnographic cases in South America where we can explore this claim, although we cannot test it directly among all the peoples who profess a belief in partible paternity.

Among the Canela, for instance, virtually every child has several fathers, as reported here by Crocker; and that universality of multiple fatherhood is closely approached, it seems, among the Mehinaku, the Arawete, and possibly the Matis (as described here by Erikson.) In some other societies – the Curripaco, for instance, treated here by Paul Valentine – multiple fatherhood is recognized as a *biological* possibility but is negated on the level of social fatherhood. Only one man can be the pater, the social father, of a child, and other men who have had sex with the mother are not accorded any paternal recognition, nor any rights over nor responsibilities for the child. Among the people of these societies, there is no possibility of comparing people who have multiple fathers with those who do not.

However, there are some societies in the middle range, where many but by no means all children have multiple fathers. In these societies we can begin to look at the advantages that multiple paternity may give to the child and the mother by comparing, among the same people, cases where children have more than one father with cases where children do not. The two societies where we have sufficient data to start to examine these issues are the Ache of Paraguay (Tupi-Guaraní speakers) and the Barí of Venezuela (Chibchan speakers.) Let us look first at advantages that may accrue to the child.

Among the hunting and gathering Aché, Hill and Hurtado report: “The results of logistic regression show that highest survivorship of children may be attained for children with one primary and one secondary father.... Our best estimate of the shape of the relationship between age-specific mortality and number of fathers suggests an intermediate number of fathers is optimal for child survival. Those children with one primary and one secondary father show the highest survival in our data set, and one secondary father is also the most common number reported during our reproductive interviews” (1996, 444). Hill has kindly made available some of his unpublished data, which show that in a sample of 227 children born over 10 years ago, 70% of those with only a primary father survived to age 10, while 85% of those who had both a primary

and a single secondary father survived to age 10. The difference is significant at $p < .01$ with a simple chi square test, one tail. Similar comparisons have also been made among the horticultural Barí. There, Beckerman, Lizarralde, Lizarralde, et al. (1998; this volume) again found a survival advantage for children with a secondary father, as detailed in their article in this volume.

How and why can it be that children whose mother has a lover during her pregnancy actually survive better than children whose mother is faithful to her husband? There seem to be two kinds of services that these lovers qua secondary fathers can provide and two people they can provide them to. These men can contribute food (male food: fish and game), either to the mother on behalf of the child, or to the child directly; and they can bestow protection, again either to the mother on behalf of the child, or to the child directly. The papers in this volume provide a number of examples of extra provisioning of children with fish and game, either directly or through the mother or another member of her household (Alès, Beckerman et al., Kensinger, Pollock).

There are no manifest examples in this volume of protective efforts by secondary fathers, although the issue is alluded to in passing by a few of the authors. Hill and Hurtado report that deliberate killing of children was an issue among the Ache, particularly the killing of children whose mother's husband was dead or divorced from the mother. Among the Ache, Hill and Hurtado (1996, 438) suggest that children with secondary fathers might have been somewhat protected from this danger, although the effect did not reach statistical significance in their sample.

Social Anthropology

In addition to sociobiological questions of reproduction and survival, the research reported here bears on central issues in traditional social anthropology. When Malinowski titled a prewar essay "Parenthood: The Basis of Social Structure" (1930b), he was only giving a lapidary formulation to a conviction that went back to the very beginnings of the discipline. As Malinowski himself put it: "The most important moral and legal rule concerning the physiological side of kinship is that no child should be brought into the world without a man – and one man at that – assuming the role of sociological father, that is, guardian and protector, the male link between the child and the rest of the community" (1930b, 137).

From the molecule of mother, single sociological father, and legitimate child, he argued, grew the extended family, the clan, the kinship terminology, and so forth; his title was indeed a summary of his argument. A single father

assigned to each child was presumed to be not only universal, but a condition for the development of the rest of human society.

Although Malinowski's theoretical adversary, Radcliffe-Brown (1950), writing just after the war, was careful to note and ratify the ancient distinction between the 'genitor' (biological father) of a child and its 'pater' (social father), he too presumed that only one man could hold the former position and only one man at a time could take the latter. For both these scholars, a child's place in the social world was influenced by its social father -- all-importantly if the society were patrilineal, weakly if it were matrilineal, to an intermediate degree if it were cognatic.

In early French structuralism, the place of the single social father appears to have been less explicit, although Lévi-Strauss's original discussion of the origins of marriage exchange in *Les Structures élémentaires de la parenté* (1949) appeared to presume that although several brothers might direct the disposition of their sister in marriage, only one father took that decisive role.

Later discussions of kinship theory (e.g., Schneider 1984), while often discoursing on the application of the kin term for 'father' to many men, usually did not link this plural application of the label to an ideology of conception that allowed for a belief in biological plurality.

Major Themes in This Volume

Although the authors represented in this book approach its topic from several theoretical perspectives, a number of widely shared themes and correlations emerge from a comparative reading of their essays. Nearly as interesting as these relationships is the lack of correlation of some obvious features of culture with the variability found in the presence and particulars of the idea of partible paternity.

Thus, all the societies treated here cultivate manioc and plantains as their staple crops, and fish and hunt for the protein fraction of the diet. Although some of these peoples do far more fishing than hunting, and others vice versa, we have found no relationship between the relative importance of fishing or hunting and the presence or importance of partible paternity. There does not appear to be a relationship between settlement size or population density or any other purely demographic parameter, and the manifestation of partible paternity; nor does there appear to be any interesting geographical ordering of the appearance or absence of partible paternity, beyond the trivial observation that neighbors somewhat resemble each other. Indeed, arguing strongly against the

likelihood of correlating the ethnographic presentation of partible paternity with any other cultural feature is the fact that it has been found to be both present (Arvelo-Jiménez 1971, 1974; Heinen and Wilbert, this volume) and absent (Mansutti and Silva, this volume) among different groups of Ye'kwana, a finding that suggests it to be a cultural trait of considerable lability. Nevertheless, a few provocative trends and commonalities do emerge from a comparative reading of the essays presented here.

One such commonality concerns ideas about conception and gestation. Woman's role in conception and the development of the fetus is widely denied among the cultures considered here; the mother is generally considered as the receptacle in which the fetus grows. Some version of this view is reported for the Cashinahua, Kulina, Yanomami, Canela, Matis, Ese Eja, and Curripaco, although Alès makes the point that Yanomami practice stresses the importance of siblings being from the same mother. With respect to the social anthropology of these peoples, Alès observes that, in the context of a belief in partible paternity, this emphasis on the male role in conception and gestation tends to undermine the strength of the patrilineage, because children with multiple fathers are potential members of different patrilineages. This paradox appears to constitute a real social problem for the Yanomami, Curripaco, and Wanano.

Frequently, pregnancy is viewed as a matter of degree, not clearly distinguished from gestation. For the Kulina, for instance, all sexually active women are a little pregnant. Over time, as Pollock reports, semen accumulates in the womb, a fetus is formed, further acts of intercourse follow, and additional semen causes the fetus to grow more. Only when semen accretion reaches a certain level is pregnancy irreversible.

Lea reports somewhat similar ideas among the Mebengokre, where there is "neither a notion of fertilization nor of subsequent 'natural' growth; rather the fetus is built up gradually, somewhat like a snowball." Like notions are found among the Yanomami, Curripaco, and Ese Eja. The Barí believe, in contrast, that a single copulation is sufficient to conceive a child, but that the fetus must be anointed repeatedly with semen in order to grow strong and healthy. It follows from these ideas that men in these societies often assert that creating a baby is hard work. Alès reports that Yanomami men say that they expend much energy to make a baby, and become thin from the effort.

Another widespread feature is the negotiability of secondary fatherhood, even where it is recognized as a biological possibility. In general, the mother asserts (or conceals) the identity of the secondary father(s) and the candidate secondary fathers accept or deny the assertion. These assertions and acceptan-

ces (and public opinion as to the truth) may change over time and with circumstance. This widespread bargaining brings up the issue of who controls reproduction, and leads to more interesting trends emerging from these essays.

Pollock, building on work by Shapiro (1974) and Århem (1981), suggests an intriguing polarity of “contexts for the reproduction of social life,” with an emphasis on marriage and affinity at one end and siblingship at the other. He suggests that partible paternity is most prominent, and most important in child welfare, in societies close to the latter pole.

Another way of looking at this issue is to interpret the polarity as a competition between men and women over whose reproductive interests will dominate social life. In small egalitarian horticultural societies such as the ones considered here, women’s reproductive interests are best served if mate choice is a non-binding, female decision; if there is a network of multiple females to aid or substitute for a woman in her mothering responsibilities; if male support for a woman and her children comes from multiple men; and if a woman is shielded from the effects of male sexual jealousy. Male reproductive interests, contrariwise, are best served by male control over female sexual behavior, promoting paternity certainty and elevated reproductive success for the more powerful males. This profile implies that men choose their own or their sons’ wives, and their daughters’ husbands; that marriage is a lifetime commitment and extramarital affairs by women are severely sanctioned; and that this state of affairs is maintained by disallowing women reliable female support networks, or male support other than that of the husband and his primary male consanguines.

It is obvious that neither sex can ever fully win this contest, yet there are situations that give the advantage to one or the other. Where women clearly have the upper hand, uxori-local residence predominates; women’s husbands are often chosen for them by their mothers, or they choose their own husbands; when a woman’s husband dies, his children tend to be brought up by their mother, her brothers, and her new husband; women have broad sexual freedom both before and after marriage; the idea of partible paternity is prominent, with women having wide latitude in choosing the secondary fathers of their children; women usually make no secret of the identity of these secondary fathers; and the ideology of partible paternity defuses to some extent potential conflicts between male rivals-antagonisms that are seldom helpful to a woman’s reproductive interests in the long run. The Barí, Canela, Cashinahua, Ese Eja, Kulina, Matis, Mebengokre, and perhaps some groups of Ye’kwana fit this description to a greater or lesser extent.

Where men clearly dominate, patrilineality and virilocality are the order of

the day; women's husbands are typically chosen by their male relatives; women's sexual activity is policed and sanctioned by men; partible paternity, if it is admitted at all as a biological possibility, tends to be rare and focused on the husband's brothers as the only acceptable secondary fathers of a woman's children. When a woman's husband dies, her children tend to be brought up by her husband's patri-kin, while she may remain unmarried if she is not accepted as a wife by one of the dead husband's brothers; women often conceal the identity of the secondary fathers of their children; and male sexual jealousy constitutes an ongoing potential danger to women. The Curripaco, the Siona-Secoya, and the Wanano are reasonably close to this pole, while the Yanomami are a bit further away, but still nearer this pole than its opposite.

The Piaroa, with their uxorilocal residence pattern and "marked bias to patrilateral filiation" (see chap. 11, this volume), combined with collective food distribution and an ideology that stresses male restraint in sexual activity, appear to be a society in which the battle of the sexes has reached something of a draw, with neither sex's reproductive interests having the upper hand. The Ye'kwana, described by Mansutti and Silva, may be in a similar standoff, more or less equidistant from the poles.

Finally, the Warao, with their robust uxorilocality and fragile marriages until several children have been born, combined with considerable male sexual jealousy, appear to be somewhat closer to the pole at which female reproductive interests dominate (although not as close as the large cluster of societies identified three paragraphs above) despite the weak evidence for a concept of partible paternity.

Organization

The essays in this book are divided into three sections. The first section collects chapters dealing with societies where the concept of partible paternity is present and where the authors make a case that practices associated with the concept have a beneficial effect on the survival of children with multiple fathers. In this section are chapters by Kenneth Kensinger on the Cashinahua, Donald Pollock on the Kulina, Catherine Alès on the Yanomami, and Stephen Beckerman et al. on the Barí.

The second section assembles articles dealing with societies where the concept of partible paternity is found, but where the authors argue that no benefits accrue to the children who have multiple fathers. Here are articles by Philippe Erikson on the Matis, Daniela Peluso and James Boster on the Ese Eja, and Lea on the Mebengokre. Here also are found two marginal cases: William Crocker

writing on the Canela and Janet Chernela discussing the Wanano are effectively on the fence as to whether the institution of partible paternity does (or did) convey significant benefits to children with more than one ascribed genitor, benefits that would not have been obtained without the mother having an affair around the time of her pregnancy. That two such experienced ethnographers should find the issue to be so subtle is an indication of the magnitude of additional research needed.

The third section gathers articles dealing with societies either where the concept of partible paternity is absent or dubious (Dieter Heinen and Werner Wilbert on the Warao, Alexnder Mansutti and Nala Silva on the Piaroa and Ye'kwana, and William Vickers on the Siona-Secoya); or where partible paternity exists as a conceptual possibility, but is suppressed on the level of social relations, because only a single social father or the social father and his brother are recognized for each child (Valentine on the Curripaco.) In this third section the authors describe the social institutions that take over the provisioning and protecting functions that in the first group of societies are augmented by the actions of multiple fathers.

Editors' note: The editors thank the contributors for their unfailing cooperation in the preparation of this volume. Their efforts have made its preparation a pleasure. We also thank Sam Scott-Burge for her preparation of the map and diagrams.

Note

1. This reference, as well as one of the South American citations (Henry 1941), is due to Robert Carneiro, who with his customary perspicacity began collecting references to indigenous theories of conception decades ago.