

Twin Death and Mourning Worldwide: A Review of the Literature

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Cultural beliefs about the nature of multiples appear in the mourning practices of many civilizations. Ethnographic literature suggests common themes that echo modern concepts. Many societies viewed twins as fragile, likely to die without preferential or meticulously equal treatment. A shared soul between twins is a common tenet, and the death of one is often felt to herald the other's prompt demise. The close relationship between multiples influences funerary rites. Honor, fear and mysticism are often evident in rituals. Twin infanticide was widely practiced, yet mourning customs were still observed. Many peoples recognize the special status of multiples and their families after one, two or more die.

Many cultures view multiples as a class apart from other humans (Corney, 1975). They are thought variously to be magical, godly, beneficent, demonic, blessed, incestuous, and/or fruits of animality or adultery (Leroy, 1976; Schapera, 1927). Such attitudes and beliefs considerably influence mourning rituals for multiples.

Materials and Methods

Published books, authorities on multiple birth, and anthropologists were consulted to identify literature on cultural practices related to twins. A Medline search was conducted for "cultural twins" and "ethnic twins." Online Human Relations Area Files (HRAF) were searched using keyword "twins", HRAF category 845 was searched with "death, mourning and burial" and categories 845, 764, and 765 were searched for "twin". Reports relevant to death of multiples in microfiche HRAF files in category 845 were evaluated. Since many reports are old, most customs are described in the past tense, although some are actually or probably still observed.

Results

Twins in Mortal Danger: Troubled Doubles

Native Theories of Twin Frailty

Many cultures recognized the greater morbidity and mortality of multiples now commonly noted in western studies (Martin & Park, 1999; Table 1). Some asserted the influence on survival of gender, chorionicity or zygosity.

Tradition and Technology Entwined

All types of multiple birth loss are described in ethnographic literature. By the Karanga (southeast Africa) vanishing twins were explained spiritually. *Kukamura*, to divide or halve, referred to bleeding near a pregnant

woman's first missed menses, which indicated that ancestors had aborted a twin sired by an evil spirit (Aschwanden, 1987). Two millenia before modern, delayed interval delivery, the Romans noted a twin's delayed birth following his wombmate's premature birth and death (Pliny, 1969).

Multifetal reduction was sometimes attempted by magic. A Toradja (Indonesia) priestess prayed to the Lord of the Sky to take away one child if a pregnant mother's belly was unusually large (Adriani & Kruyt, 1951). The Hopi (Native America) relied on a shamanic "twisting procedure," or a bracelet of twined black and white wool, to convert twins into one child (Beaglehole & Beaglehole, 1935). Reduction was more often achieved by infanticide of one or all. Nuer (Nilotic Sudan) reported high-order reduction to twins. Distressed parents of newborn sextuplets realized the mother could only nurse two. Four were carried to the forest in a basket and left in a tree (Huffman, 1931).

While some groups eliminate multiples, others seek hidden twins. The economically stressed Kedjom (western Africa) increasingly explain misfortune by talk of occult twinship. Expensive rituals are held to avert the aftermath of misused twin powers (Diduk, 2001). Some Westerners feel the intrauterine demise of an undetected twin explains their loneliness and advocate psychotherapy for the survivors (Noble, 1991). Ultrasounds showing twin reabsorption are cited to support what some call the "legend of the vanishing twin" (Noble, 1991; Schwartz, 1996 and www.vanishingtwin.com), although some experts are skeptical (Piontelli, 1999). Some patients with factitious illness claim the loss of a fictional twin (Rothchild, 1994).

Hoodwinking the Grim Reaper

Preferential Treatment

Special Care and Respect. Yoruba (Nigeria) fathers prostrated themselves before their newborns so they would not "go back" (Renne, 2001). The Dogon (west Africa) did not scold infant twins, fearing they would refuse to nurse (Paulme, 1940). The Kpe (coastal Cameroon) felt twins might depart if they disliked their birth house (Bah, 2000). Chippewa (Native American) believed a twin not specially treated would die, offended (Hilger, 1951). The Mohave

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Table 1

Prognosis for Twin or Triplet Survival.

Culture	Belief
Alaska Tlingit (deLaguna, 1972)	
Tallensi (Northern Ghana) (Fortes, 1949)	Precious, twins or triplets unlikely to survive to childhood despite meticulous care.
Nahane (NW North America) (Teit, 1956)	
Korea (Osgood, 1951)	Twins weaker than other children, likely to die young.
Nootka (NW North America) (Sapir, 1922)	Twins wouldn't live long.
Hopi (North America) (Simmons, 1942; Talayesva, 1942)	Hard to raise twins, almost always die.
Tikopia (British Solomon Islands, west Polynesia) (Firth, 1956)	Twins had unequal strength; weaker would die early.
Tiv (central Nigeria, W Africa) (Bohannon, 1953)	
Nuer (Nilotic Sudan, E Africa) (Huffman, 1931)	
Azande (Sudan, E Africa) (Seligman, 1932; Lagae 1926)	Unlikely both would live, one would die.
Mbuti pygmies (Zaire, Central Africa) (Turnbull 2, 1965)	(Azande suspected witchcraft if both survived.)
Skinkaietsk (NW North America) (Cline et al., 1938)	Only identical twins would live.
Semai (Malaysia) (Dentan, 1978)	Identicals would live, one fraternal twin would die.
Toradja (Indonesia) (Adriani & Kruyt, 1951)	Identicals at some risk; one of boy-girl twins sure to die. Boy-girl separated at birth to prevent one stealing the other's life spirit (<i>tanoana</i>).
Andean Highlands (Ecuador) (Parsons, 1945)	
Central Thai (Hanks, 1964)	Same-sex twins live, one of opposite-sex dies.
Marias (southern India) (Grigson, 1949)	Dichorionic more likely to die.
Lepcha (Himalayas) (Gorer, 1938)	Opposite-sex, male firstborn: twins die young.

(Native American) believed twin souls were immortal, visiting earth once before returning skyward (Kroeber, 1953). Twin "suicide" could be triggered by a last-minute change in birth plans, dislike of the family, unequal or disrespectful treatment, or jealousy of a baby conceived before weaning the twins. A hydrocephalic twin "intended to die that way...He just makes himself and everyone else miserable...before he dies" (Devereux, 1961). Yuma (Native American) also felt twins visited from their own spiritual village, and would return if not picked up promptly when they cried (Spier, 1933).

Special Food. The Oku (Cameroon Grassfields) perform a birth ritual, saying twins only grow strong when fed brown salt and palm oil (Bah, 2000). The Malinke and Bambara of Mali (west Africa) gave twins choice meat, eggs and milk usually reserved for adult men (Imperato, 1971).

Money. Visitors gave Yokuts (Native American) parents money for the twins "to make them strong" (Gayton, 1948). Igbo natives in Nigeria gave money to a mother of quintuplets after their birth in a modern hospital (Bastian, 2001). Yoruba mothers of twins dance for money, with proceeds going equally to each twin (Lieberman, 1999).

Precautions in Public. A Mbundu (southwest Africa) mother of triplets shook a rattle, *olusangu*, to greet passersby, so her children would not die (Hambly, 1934). Navajo Native Americans also protected twins from strangers (Chisholm, 1983).

Religious Customs. The Rundi (central Africa) performed a ceremony at twins' birth to prevent demise (Meyer, 1916). Kedjom mothers gave medicines to twins lifelong to render them less vulnerable (Diduk, 1993). Haitians held

festivals every few years, *mange marassa*, to honor souls of living and dead multiples. Live twins and triplets wore costly, identical new clothes. A father not providing such finery could expect anything from earache to insanity! The spirits of capricious multiples were offered food in double and triple bowls to prevent misfortune (Courlander, 1960; Herskovits, 1937). French Guiana (South America) blacks held twin dances every 4-5 years to avoid angering the spirits of dead twins (Hurlalt, 1961).

Restricted Contact Between Twins and Death. The Dogon (west Africa) excluded mourners from the birth hut and the father of twins from funerals (Dieterlen, 1941). When Thonga (South Africa) twin children paid a mourning visit, a gravedigger smeared ashes on each child's head (Junod, 1927). However, a Nkundu (central Africa) twin birth was free of even mourning restrictions for single births (Hulstaert, 1938). Jamaicans asserted that twins were immune to harm from "duppies," mischievous spirits that vexed ordinary folk (Beckwith, 1929).

Equal Treatment

Twins were treated identically to prevent their death (see Table 2). Even if only one Nkundu twin deserved punishment the other suffered the same treatment (Hulstaert, 1938). The Toradja, conversely, refrained from punishing identical twins, fearing both would fall ill (Adriani & Kruyt, 1951). Mawri (west Africa) twins' mothers strove to convince an envious twin he need not be offended (Masquelier, 2001).

Table 2
Identical Treatment to Avert Death

Culture	Practice	Comments
Mohave (North America) (Kroeber, 1953)	Twins given equal presents.	Slighted twin would be angry, "go where he had come from."
Sinkaietsk (NW North America) (Cline, 1938)	Twins dressed alike.	Less favored would cry & die.
Nootka (NW North America) (Drucker, 1951)	Exactly equal treatment. Suckled at same time, each in cradle, tilted away from each other.	Faced away from each other so they wouldn't "talk to each other" & return to "Salmon's Home."
Kedjom (Cameroon, West Africa) (Diduk, 1993)	Treat twins equally.	Otherwise die, join ancestors from jealousy and resentment.
Tallensi (Ghana, West Africa) (Fortes, 1949)	Scrupulously identical treatment. Twin brothers live together for life, sisters married to same or adjacent settlements. Equal, one yet two.	If not treated equally, things will not turn out well for them.
Nkundu (Central Africa) (Hulstaert, 1938)	Scrupulously identical treatment.	Smallest object given to one & not other would cause slighted twin to die. If one picked up, other must also be carried.
Hausa-speaking Mawri (West Africa) (Masquelier, 2001)	Identical treatment.	Discussing differences aloud was dangerous; comment on size discrepancy could prompt smaller to kill larger.

Kindred Spirits

Womb to Tomb Sympathy Pains

Table 3 details beliefs about twins' spirits that influence rituals. The sympathetic twin bond implied that one twin would die soon after the other (see Table 4).

Souls and Sole Survivors

Varied customs derive from the closeness of twins. Concern for her deceased twin son was expressed by a Native American woman who did not want his name spoken, fearing his spirit would be called back from its peaceful resting place (Anonymous, 1998). Mirebalais Haitians, who believed twins shared a soul, felt the survivor must share a bit of food or gifts with his dead twin (Herskovits, 1937). Residents of the Galoa Island (Fiji) consider a survivor to be dead until complex ceremonies revive him (Cassill, 2000).

After an AmaXosa (South African) twin died, the survivor exchanged a blanket or beads with the deceased. The dead twin was buried in his sibling's clothes. The survivor, wearing his twin's garments, lay briefly in the grave before the deceased was interred. Family members did not shave their heads or wear mourning dress until the last twin died (Lieberman, 1999; Schapera, 1927). It was believed the euphorbia tree planted at a twin's birth would fade when the twin died. A survivor, if ill, was washed in the tree's milk over the grave (Schapera, 1927).

Zulus (South Africa) did not mourn for a twin, believing sorrow would anger the community ancestral spirit (Schapera, 1927). The Nootka (NW North America) considered it taboo to mourn for a twin, (Drucker, 1951) and other cultures felt mourning would hurt the survivor (Lieberman, 1999; Schapera, 1927). Nuer twins did not mourn when one died, since they shared one spirit and personality. A woman whose twin had died said, "Is not his

soul still living? I am alive, and we are really children of God" (Evans-Pritchard, 1956).

Death is referred to euphemistically by many Africans to avoid harming the living twin. AmaXosa said the deceased was "pretending," "married", "torn away from his fellow," or "broken off," like a limb from a tree (Lieberman, 1999; Schapera, 1927). The Dogon, Baganda (central Africa) and Nuer said the deceased had flown away (Evans-Pritchard, 1936; Griaule, 1965; Kagwa, 1934; Mair, 1934). Yoruban (Nigeria) dead twins may "go to Lagos" to bring their parents wealth (Lieberman, 1999; Renne, 2001).

Mortuary Rites: Revered, Feared and Mysterious Multiples

Revered

The Bangolan (Cameroon) bury twins like a *fon* (king) on a throne (Ndi, 2000). The Azande (east Africa) buried a twin at a roadside, where passersby flung a leaf, grass or stick on the grave for luck. Pambias spit on the grave to ensure a prompt meal. People who omitted these gestures would meet ill fortune (Larken, 1926; Seligman, 1932). The Nsó (west Africa) performed ritual sacrifices after the death of twins (Banazdem, 1996). The Wanyoro (east Africa) observed a long mourning period after the death of twins, who were given their own miniature hut (Corney, 1975). The AmaXosa did not weed or hoe for two days after a twin's death. Stillbirth of both twins was exceedingly sad, and hail would destroy the crops of anyone so obstinate as to hoe fields after such misfortune (Schapera, 1927).

Feared

Twins were feared as anomalous (see Table 3), owing to their animal or spirit connections or their supernatural powers (Corney, 1975; Leroy, 1976). Fear impacted African traditions concerning infant twin death. A Myoro (east Africa) mother expressed milk into two small pots every

Table 3

Twin Soul Concepts

Concept	Cultures observing	Comments
Twins shared one soul.	Sumba (Indonesia) (Kurata, 1994), Toradja (Indonesia) (Adriani & Kruyt, 1951) Yoruba (W Africa) (Oruene, 1983) Nuer (E Africa) (Evans-Pritchard, 1956) Mirabelais Haitians (Herskovitz, 1937) Burmese Karen, (Asia) (Marshall, 1922) Manchurian Tungu (Asia) (Schram, 1954)	Sumba: ritually separated soul to avoid survivor death. Toradja: only identicals shared a spirit. Nuer: twins one person spiritually, two physically.
Each twin was spiritual double (<i>dya</i>) of other.	Malinke, Bambara (Mali) (Dieterlen, 1951)	
Each had own soul yet affected other.	Karanga (SE Africa) (one or both had evil spirit) (Aschwanden et al., 1987) Toradja (for opposite sex twins) (Adriani & Kruyt, 1951)	Karanga: 2 souls, 1 heart, identical feelings. Toradja: opposite sex separated at birth to prevent one stealing the other's life spirit.
Godly or special spirits different from souls of ordinary mortals.	Mohave (North America) (Kroeber, 1910) Malinke, Bambara (Mali) (Dieterlen, 1951; Imperato, 1974) Bomvana (S Africa) (Schapera, 1927) Thonga (S Africa) (Schapera, 1927) Yoruba (W Africa) (Oruene, 1983) Dogon (W Africa) (Palau-Marti, 1957) Kedjom (W Africa) (Diduk, 1993) Giljake/Ainu (Sakhalin Island, Northeast Russia) (Pilsudski, 1910)	Mohave: visited from heaven. Malinke/Bambara: spiritual offspring of <i>faro</i> (God). Twins' <i>dya</i> (shadow-double) guarded in water by <i>faro</i> , immune to danger, unlike singleton <i>dya</i> vulnerable to evil. Bomvana: "beings from God." Thonga: from the sky, children of heaven. Yoruba: divine origin. Dogon: each twin had 8 souls instead of usual 4. Kedjom: special connection to spirit world. Giljake/Ainu: Mountain god and/or sea god, fathered one.
Evil or animal spirits.	Southeast Nigerian (including Efik, Ibibio and Annang) (Asindi et al., 1993) Other African including Yoruba (West Africa) (Leroy, 1976) Ga (Ghana, West Africa) (Kilson, 1994) Nuer (East Africa) (Evans-Pritchard, 1956) Tallensi (Ghana, West Africa) (Fortes, 1949) Northwest North America (Leroy, 1976) Australian Aboriginals (Corney, 1975) Dayaks (South Borneo, Indonesia) (Leroy, 1976) U'Wa (Colombia) (Kotler, 1999)	Nigerian: fathered by devil or nonhuman. Other African: infidelity with evil spirit. Yoruba: infidelity with another man or evil spirit. Ga: same spirit as bushcow. Nuer: related to birds. Tallensi: malicious bush sprites. NW North Americans: fathered by salmon and/or transform to salmon. Australian: one from evil spirits' witchcraft. Dayaks: one from snake or ape spirit penetrating womb. U'Wa: caused by devil or nonhuman.
Spirits of deceased.	Mohave (North America) (Devereux, 1961) Tlingit (NW North America) (DeLaguna, 1954) Javanese (Indonesia) (Weiss, 1982) Ancient Egypt (Leis, 1965)	Mohave alternative belief: acquisitive ghosts of deceased. Tlingit: competing recently dead spirits simultaneously entered the womb. Javanese: a fetus recruited another woman's fetus, or a departed soul, to join him.

evening so her twins' spirits wouldn't persecute her (Bryant, 1949). The neighboring Unyanyembe threw dead twins to water to prevent droughts, famine or floods (Bryant, 1949). Ugandan tribes, including the Iteso, placed bodies of dead twins under 6 months in pots sealed with swamp mud. These were put in a swamp clearing, not buried, out of fear that burial would prevent further births to the bereaved mother (Mubiru, 2001). The Kpe (Cameroon) buried infant twins, viewed as children of the underworld, in large mwendene leaves to prevent rebirth (Ardener, 1956).

Mossi (west Africa) twin mothers took food to the mischievous twin spirits inhabiting the bush to give thanks for their twins but also to ask that they be taken back if they had been sent maliciously. Death reassured them that mischief had been foiled (Hammond, 1959). Tallensi (west Africa) felt twins were not fully human until they were old enough to have a sibling. Until then, they were *kolkepaaris*, malicious bush sprites that were buried unceremoniously in an uninhabited place if they died. A surviving infant was

ritually "pegged", or fastened, to life and henceforth considered human (Fortes, 1949; Rattray, 1932).

Bones of mixed-gender Khasi (northeast India) twins, could not be put in the family grave due to purported intrauterine incest (Gurdon, 1907; Stegmiller, 1921). Although Balinese (Indonesia) boy-girl twins also violated an incest taboo, they were buried with other sinless infants (Belo, 1935).

Mysterious

Mythical attributes, such as animal kinship, inevitably influence twin funerary rites. The Ga (west Africa) presume twins have the wild bushcow's spirit, (Kilson, 1994) and living twins rush about like wild cows when a twin dies (Parrinder, 1949). The Nootka and Bella Coola (NW North America) believed salmon and twins had close affinity. The Nootka did not bury a dead twin infant, but laid it on swampy ground (Drucker, 1951). A twin who died after infancy was not interred like a singleton, but placed in a

Table 4
Death of One Twin Brought Death of Other Soon After

Culture	Comments
English (Corney, 1975)	
Washoe (Native American) (dAzevedo et al., 1963)	
Northern Paiute (Native American) (Kelly, 1934)	
Mohave (Devereux, 1941)	
Hopi (Beaglehole, 1935), Yokuts (Gayton, 1948), Plateau Yumans (Spier, 1928), other Native American (Stewart, 1941)	
Nahane (NW N America) (Teit, 1956)	Twins were halves of a whole, sharing one breath.
Jicarilla (New Mexico) (Opler, 1946)	Twins were 2 people but shared 1 life. If one died, other's life shortened.
Papago (Arizona) (Underhill, 1939)	
Tungu (Manchuria, Asia) (Shirokogoroff, 1924)	Shared soul.
Karen (Burma, Asia) (Marshall, 1922)	Shared soul. Survivor's wrist was bound with a cord to prevent <i>k'la</i> (soul) from escaping.
Chugach Eskimo (South Alaska) (Birket-Smith, 1953)	If older died, younger followed. If younger died, older could live.
Alaskan Tlingit (Olson, 1967; deLaguna, 1954)	2 souls, 1 life. If older died, younger followed. Early in childhood, a survivor would die shortly after co-twin; twins breathed for each other until age 10 years.
Yuma (North America) (Spier, 1933)	Sympathetic twin bond only important in childhood.
Mohave (Devereux, 1941)	Of quarreling boy-girl twins: one might die, offended "spouse" followed. Boy-girl twins spouses in heaven.
Chippewa (North America) (Hilger, 1951)	Mistreated twin who died would be followed by dissatisfied wombmate.
Native American, unspecified (Anonymous, 1998)	Deceased twin might lure survivor into afterlife.
Karanga (SE Africa) (Aschwanden et al., 1987)	If twins separated, survivor would die of loneliness.
Yoruban (W Africa) (Renne, 2001)	Dead twin could call survivor, cause illness or death. Medications prevented survivor seeing or hearing dead twin.

box in a riverside tree until the current swept away tree and box together (McIlwraith, 1948).

Nuer (NE Africa) twin infants' bodies were placed in trees due to their purported kinship with birds (Evans-Pritchard, 1956). Both birds and twins were children of God, *gaat kwoth*, spirits who dwell in air and clouds. A stillborn twin was left in a reed basket in a tree fork and birds of prey supposedly left them intact (Evans-Pritchard, 1936; Huffman, 1931). Adult Nuer twins weren't buried, but were laid on a platform with no ceremonies. Twins did not attend others' funerals (Evans-Pritchard, 1936 and 1956).

The Gilyak (Sakhalin Island, Far east) cremated singletons, but burial was mandated for a twin or his parents. Twins, as offspring of the mountain god, were dressed in white and seated Turkish style in a specially built house surrounded with shavings (Pilsudski, 1910; Shternberg, 1933).

The Thonga felt the birth of "Children of Heaven" was a disaster that prevented rainfall. Dead twins were buried in wet ground to counteract this calamity (Junod, 1927). The Aymara (Bolivia) believed the death of twins required elaborate ceremony to prevent storms. In 1965, a poor family with stillborn twins could not afford the ceremony, and it hailed the following Monday. *Yatiris* (*maestros*) from neighbouring towns were summoned to lead complex all-night rites, mixing Catholic prayers with talismans like wildcat fur, rotten eggs, and flowers to dispel curses and grief, avoid disgrace and bring health to the twins' souls (Buechler, 1971).

Infanticide: A Special Kind of Loss

Justifications and anthropological explanations of the disturbing custom of multiple infanticide include factors like the allegedly adulterous, evil or animal origin of multiples; fear of dire consequences from twin birth; low female status in aggressive societies; paternal fear of two sons; and adherence to poorly understood traditions (Ball & Hill, 1996; Leis, 1965; Leroy, 1976; Schapera, 1927). Some argue biological utility as an ultimate reason: harsh elimination of multiples and abnormal babies effectively allocates scarce resources to the most viable infants (Ball & Hill, 1996; Granzberg, 1973; Leroy, 1976). Several levels of explanation may of course apply concurrently (Meier, 2001).

The twin bond was respected in most infanticidal societies. The Northern Paiute (Native America) hid the favored twin under a basket during the sibling's killing so both spirits wouldn't leave together (Steward, 1941; Stewart, 1941). The Ndele and Matabele (Zimbabwe) brought an ill survivor to its wombmate's grave to soothe its pain (Schapera, 1927), and the Karanga washed the survivor over his twin's grave (Aschwanden et al., 1987). A strip of freshly killed animal hide was wrapped on a Karanga survivor's arm to ease loneliness (Aschwanden et al., 1987). The Zulu promptly killed one twin, and buried it outside the doorjamb of the mother's hut to strengthen the survivor as he stamped on the grave while playing (Raum, 1973).

After infanticide, mourning might proceed normally. The Yurok (North America) nurtured only one of same-sex

twins, abandoning the other, yet parents still sorrowed for the deceased (Thompson, 1916). A Toda family (southern India) similarly mourned a neglected twin (Peter, 1963).

Twin Status Transcends the Grave

The special nature of multiples was recognized even after death. The Baganda modified their elaborate naming ritual when both twins died, feasting without singing, dancing or drumming (Mair, 1934). Mbuti pygmy women (central Africa) held ritual dances after twins died at birth (Turnbull, 1965). The Bambara of Mali made a fetish, *sinsin*, to house the genie of twins. It hung in the entryway of their parents' house, and annual sacrifices were made as long as it lasted, even after the twins' deaths (Henry, 1910).

If one Oku twin dies before the traditional twin birth ceremony, the survivor is still given the usual salt, oil and twin rite (Bah, 2000). The Ga (Ghana, west Africa) often continue traditional twin ceremonies after a twin dies (Kilson, 1994) and the Yoruba sacrifice to the Ibeji god after twins die (Lieberman, 1999; Oruene, 1983). If one Dogon twin infant died, the twins' first birthday feast was

celebrated when the family's next child, named for the deceased, turned one year old (Paulme, 1940).

Tallensi and Nyakusa (southeast Africa) parents underwent ritual purification whether or not the twins survived (Fortes, 1949; Wilson, 1957). The Nootka banished the parents for four years even if the babies died (Drucker, 1951). Atonement for a Tiv (Nigeria) twin birth could be performed by a surviving twin (Bohannon & Bohannon, 1969). Mixed-gender Balinese twins rendered the village unclean, and the family was banished for six weeks to the graveyard. Cleansing rituals proceeded despite one twin's death (Belo, 1935).

Made in His Image: Effigies for a Dead Twin

Tangible manifestations of respect for the twin bond are evident in carved images, gourds or bracelets representing a deceased twin. Many tribes created effigies (Corney, 1975; see Table 5).

The best-known African effigies are those of the Yoruba, who commission a unique, expensive *ere ibeji* (twin image) when a twin dies (Corney, 1975; Lieberman, 1999; Renne, 2001, see colour photos page 246). These traditions

Table 5

Effigy Objects to Represent Deceased Twins.

Culture	Effigy type, size	Use & beliefs
Congo (Central Africa) & Ovimbundu (SE Africa) (Corney, 1975)	Carved wooden	Given to survivor to prevent loneliness, buried with him/her after death.
Vachokue (Ngongo, Ngalangi) (W Africa) (Corney, 1975)	Carved wooden	Women carried to substitute for dead twin.
Northern Nigeria (W Africa) (Corney, 1975)	Carved wooden	<i>Asshe</i> . Mother wouldn't give birth again without it.
Dahomey (W Africa) (Corney, 1975)	Carved wooden	Survivors carried statue.
Unyanyembe (E Africa) (Bryant, 1949)	Gourd worn around mother's neck	Mother put a bit of living twin's food in gourd to avert torment by dead twin's spirit.
Papago Indians (Arizona) (Joseph et al., 1949)	7" carved wooden figures (two)	Carved by shaman at birth. If one twin died, 1 statue buried with it, other kept with survivor to prevent loneliness.
Gilyak (Northern Japan) (Pilsudski, 1910; Shternberg, 1933)	Carved wooden figure; two joined at sides if dual death; 3-6 ft. tall stick carved with curly design (for last rite)	Figures placed on model yurt (hut). Daily food offerings for 3 generations, then figures taken to mountaintop, offered final sacrifice. Long stick planted beside figures in ground, saved tribe from haunting by twins' spirits.
Bambara, Malinke (Mali, W Africa) (Dieterlen, 1951; Imperato, 1971)	White metal bracelets	Bracelets represent twins' <i>dya</i> (shadow-portion of spirit). Open during life symbolizing incomplete terrestrial world. Closed around wrist at death, signifying entry into complete, closed world.
Northern Bambara, Malinke (W Africa) (Dieterlen, 1951; Imperato, 1971)	Carved effigy (<i>flanitokole</i>) "double which remains" N. Bambara: Up to 20" Malinke: 2-14"	Made by village blacksmith. Named for dead twin and placed by survivor, who cared for it when older. After circumcision, statue returned to parents' home until survivor's marriage. Placed with another statue in married survivor's home to represent dead twin & spouse.
Southern Bambara (Imperato, 1971)	Two wooden rods	Used to represent twins.
Mali (W Africa) (Corney, 1975)	Carved wooden	Effigy discarded after survivor's death.
Yoruba (W Africa) (Oruene, 1983; Lieberman, 1999; Parrinder, 1949)	10" tall, carved wooden effigy	"Nursed, fed" & cared for same as living twin. Decorated with cowries, bracelets, anklets. Carried by mother, until survivor matures. Mother carries 2 if both twins die.

are diminishing due to their expense, the growth of Western and Christian influences and improved twin survival rates (Renne, 2001).

Discussion

The Relevance of Past to Present

Many societies recognise the difficulty of rearing multiples and evolve various ideas about their evident vulnerability. Even in a well developed society like the U.S., half of twins and nearly all triplets have low birth weight and die early four and ten times as often, respectively, as newborn singletons (Martin & Park, 1999).

Many similar customs and rituals arose independently. Widespread beliefs apart from twin frailty include the special nature of multiples, a shared soul that implies deaths close together and a need to treat twins identically to avert an envious death. Similar beliefs are seen amongst neighboring tribes in North America and in Pacific Islands, but adjacent groups in western Africa often developed opposite responses to twin birth (Corney, 1975).

Transmigration has facilitated centuries of cultural exchange. Most New World slaves came from western Africa, whence for example Haitian customs derive (Herskovits, 1937). Black slaves transported to South America conveyed different rites for twin illness and death (Price, 1983). The Yoruba Ibeji cult is also found in the Caribbean, and in Cuba and the Brazilian Candoble cult alongside worship of the twin Catholic saints, Cosmas and Damian (Corney, 1975, Leroy et al., 2002). Bolivian Aymara rituals also mingle native and Christian influences (Buechler, 1965).

Over time, political, religious, economic and health changes alter both attitudes and rituals. Yoruba twins, once banished or killed, were worshipped in the mid-eighteenth century and became sources of pride thereafter (Renne, 2001). Yoruba twin rituals are said to be declining (Renne, 2001), while Kedjom ceremonies increase (Diduk, 1993, 2001). Culture also affects popular thinking, not always beneficially. Some authorities fear the Izala Muslim view of twins as proof of maternal adultery is liable to bring them disadvantage or even death (Masquelier, 2001).

Infanticide: History's Lessons and Modern Issues

The mingled relief and grief in cultures practicing infanticide may assist the study of psychological responses to multifetal reduction. Moreover, with globalization, twin infanticide or neglect could begin to surface within Western societies. Meanwhile all professionals, wherever they work, watch for twin maltreatment. One Southeast Asian mother in a U.S. hospital, believing her second-born twin to be evil, strangled it before dismayed staff (Malmstrom, 1999). The U'Wa of Columbia customarily left newborn twins in a river or forest, believing they heralded ill fortune. Then, in 1999, an adoption agency in Colombia took custody of U'Wa twins abandoned at a clinic. Fierce debate followed about the tribe's fitness to resume caring for them (Kotler, 1999).

Efforts to curb twin infanticide may only slowly effect change. In the early twentieth century, Igbo-speaking Onitsha natives (Nigeria), who were employed by missionaries

to care for twins in special houses, subtly neglected them yet were unsuspected until many babies died (Bastian, 2001). Navajo (North America) figures of twin mortality following hospital discharge in the 1960s were suspiciously high, compared to those for equally stable singleton babies (Levy, 1964). Several southeast Nigerian tribes believed both twins must perish since they couldn't tell which had demon paternity. In 1991, one in 10 pregnant women from Efik, Ibibio and Annang tribes still believed twins were of inhuman origin (Asindi et al., 1993).

Multicultural Mourning

For some complex beliefs, several, sometimes contradictory, explanations are offered (Devereux, 1961).

The notion of a shared twin soul clearly influences mourning, and grief is greater in the West after twin loss than the death of other relatives (Segal & Bouchard, 1993). Surviving twins anywhere may be comforted in believing their twins' spirits live on in them. Some customs, however, could conceivably harm mental health, e.g. prohibition of grief for or by twins and merit further study.

When one infant twin dies, holding and photographing the deceased and the living twin together clearly helps many Western parents, (Bryan, 1995; Cuisinier et al., 1996). But this could contradict other cultures' taboos (Anonymous, 1998; Renne, 2001). Tribal attribution of a special status to families of multiples after death is noteworthy compared to reports that the loss of a multiple is typically underappreciated in the West (Bryan, 1995; Cuisinier et al., 1996). An effigy may comfort some bereaved families: photographs and, if necessary, x-rays or hospital records will help.

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References

- Adriani, N. & Kruyt, A. C. (1951). *The Baré-speaking Toradja of Central Celebes (the East Toradja)* (Vol. 2). Amsterdam: Noord-Hollandsche Uitgevers Maatschappij.
- Anonymous (1998). *Quarterly meeting of Chicago area Perinatal Alliance*, July 23.
- Ardener, E. (1956). *Coastal Bantu of the Cameroons*. London: International African Institute.
- Aschwanden, H., in collaboration with the Karanga nurses of the Musiso Hospital at Zaka, Zimbabwe. (1987). *Symbols of death: An analysis of the consciousness of the Karanga* (Shona Heritage series 4; U. Cooper, Trans.). Gweru, Zimbabwe: Mambo Press.
- Asindi, A. A., Young, M., Imaobong Etuk, H. V., & Vdo, J. J. (1993). Brutality to twins in south-eastern Nigeria: The existing situation. *Journal of Tropical Pediatrics*, 39(6), 378-379.

- Bah, N. J. (2000). *Some Oku rituals* (Western Grassfields Cameroon). Unpublished manuscript.
- Ball, H. L., & Hill, C. M. (1996). Reevaluating twin infanticide. *Current Anthropology*, 37(5), 856-863.
- Banadzem, J. L. (1996). Catholicism and Nso traditional beliefs. In I. F. & D. Zeitlyn (Eds.), *African crossroads: Intersections between history and anthropology in Cameroon*. Providence: Berghahn Books.
- Bastian, M. L. (2001). "The demon superstition": Abominable twins and mission culture in Onitsha history. *Ethnology*, 40(1), 13-27.
- Beaglehole, E., & Beaglehole, P. (1935). *Hopi of the second mesa* (Supplement to American Anthropologist, vol. 37, no. 3, part 3). Menasha, WI: American Anthropological Association.
- Beckwith, M. W. (1929). *Black roadways: A study of Jamaican folk life*. Chapel Hill, NC: University of North Carolina Press.
- Belo, J. (1935). A study of customs pertaining to twins in Bali. *Tijdschrift voor Indische Taal-Land-en Volkenkunde*, 75, 484-549.
- Bohannon, L., & Bohannon, P. (1953). *The Tiv of central Nigeria*. London: International African Institute.
- Bohannon, P. & Bohannon, L. (1969). *A source book on Tiv religion in 5 volumes* (Vol. III, Chpt. 9). New Haven, CT: Human Relations Area Files.
- Buechler, H. C. (1971). *The Bolivian Aymara*. New York: Holt, Rinehart and Winston.
- Bryan, E. M. (1995). The death of a twin. *Palliative Medicine*, 9(3), 187-192.
- Bryant, A. T. (1949). *The Zulu people as they were before the white man came*. Pietermaritzburg: Shuter and Shooter.
- Cassill, K. (2000). Folklore: Fact or fiction? *Twins Foundation Newsletter*, 6-7, p.12.
- Chisholm, J. S. (1983). *Navajo infancy: An ethnological study of child development*. New York: Aldine Publishing Co.
- Cline, W. B., Commons, R. S., Mandelbaum, M., Post, R. H., & Walters, L. V. W. (1938). *The Sinkaietk or Southern Okanagon of Washington* (L. Spier, Ed.). Menasha: George Banta.
- Corney, G. (1975). Mythology and customs associated with twins. In I. MacGillivray, P. P. S. Nylander & G. Corney. (Eds.), *Human multiple reproduction*. London: W.B. Saunders Company, Ltd.
- Courlander, H. (1960). *The drum and the hoe: Life and lore of the Haitian people*. Berkeley: University of California Press.
- Cuisinier, M., deKleine, M., Kollee, L., Bethlehem, G., & de Graauw, C. (1996). Grief following the loss of a newborn twin compared to a singleton. *Acta Paediatrica*, 85(3), 339-343.
- D'Azevedo, W. L. (1963). *The Washo Indians of California and Nevada* (University of Utah Anthropological Papers 67). Salt Lake City: University of Utah.
- DeLaguna, F. (1972). *Under Mount Saint Elias: The history and culture of the Yakutat Tlingit*. Washington, DC: Smithsonian Institution Press.
- DeLaguna, F. (1954). Tlingit ideas about the individual. *Southwestern Journal of Anthropology*, 10, 172-191.
- Dentan, R. K. (1978). Notes on childhood in a nonviolent context. In A. Montagu (Ed.), *Learning non-aggression* (pp. 94-143). Oxford: Oxford University Press.
- Devereux, G. (1941). Mohave beliefs concerning twins. *American Anthropologist (News Series)*, 43, 573-542.
- Devereux, G. (1961). *Mohave ethnopsychiatry and suicide: The psychiatric knowledge and the psychic disturbances of an Indian tribe*. Washington, DC: Government Printing Office.
- Diduk, S. (1993). Twins, ancestors and socio-economic change in Kedjom society. *Man (New Series)*, 28(3), 551-571.
- Diduk, S. (2001). Twinship and juvenile power: The ordinariness of the extraordinary. *Ethnology*, 40(1), 29-43.
- Dieterlen, G. (1941). *Les ames des Dogons*. Paris: Institut d'Ethnologie.
- Dieterlen, G. (1951). *Essai sur la religion bambara*. Paris: Presses Universitaires de France.
- Drucker, P. (1951). *The northern and central Nootkan tribes*. Washington, DC: Government Printing Office.
- Evans-Pritchard, E. E. (1936). Customs and beliefs relating to twins among the Nilotic Nuer. *Uganda Journal*, 3, 230-238.
- Evans-Pritchard, E. E. (1956). *Nuer religion*. Oxford: Clarendon Press.
- Firth, R. W. (1956/57). Ceremonies for children and social frequency in Tikopia. *Oceania*, 27, 12-55.
- Fortes, M. (1949). *The web of kinship among the Tallensi: The second part of an analysis of the social structure of a Trans-Volta tribe*. Oxford: Oxford University Press.
- Gayton, A. H. (1948). *Yokuts and western Mono ethnography*. Berkeley: University of California Press.
- Grigson, W. V. (1949). *The Maria Gonds of Bastar*. London: Oxford University Press.
- Gorer, G. (1938). *Himalayan village: An account of the Lepchas of Sikkim*. London: M. Joseph.
- Granzberg, G. (1973). Twin infanticide: A cross-cultural test of a materialist hypothesis. *Ethos*, 4, 405-412.
- Griaule, M. (1965). *Conversations with Ogotemmelé*. London: published for the International African Institute by Oxford University Press.
- Gufler, H. (1996). Yamba twin ritual. *Anthropos*, 96, 35-51.
- Gurdon, P. R. T. (1907). *The Khasis*. London: David Nutt.
- Hammond, P. B. (1959). Economic change and Mossi acculturation. In W. R. Bascom & M. J. Herskovits (Eds.), *Continuity and change in African cultures*. Chicago: University of Chicago Press.
- Hambly, W. D. (1934). *The Ovimbundu of Angola*. Chicago: Field Museum of Natural History.
- Henry, J. (1910). *Lame d'un peuple africaine. Les Bambara, leur vie psychique, ethnique, sociale, religieuse*. Münster: Aschendorff.
- Herskovits, M. J. (1937). *Life in a Haitian valley*. New York: Alfred Knopf.
- Hilger, M. I. (1951). *Chippewa child life and its cultural background*. Washington, DC: Government Printing Office.
- Huffman, R. (1931). *Nuer customs and folk-lore*. London: published for International African Institute by Oxford University Press.

- Hulstaert, G-E. (1938). *Le mariage des Nkundo*. Bruxelles: G van Campenhout.
- Huralt, J. (1961). *The Boni refugee blacks of French Guiana*. Dakart: Institut Français d'Afrique Noireno.
- Imperato, P. J. (1971). Twins among the Bambara and Malinke of Mali. *Journal of Tropical Medicine and Hygiene*, 74(7), 154-159.
- Joseph, A., Spicer, R. B., & Chesky, J. (1949). *The desert people: A study of the Papago Indians*. Chicago: University of Chicago Press.
- Junod, H. A. (1927). *The life of a South African tribe* (Vol. 2, 2nd Ed.). London: Macmillan.
- Kagwa, A. (1934). *The customs of the Baganda* (E. B. Kalibala, Trans.; M. Mandelbaum, Ed.). New York: Columbia University Press.
- Kelly, I. T. (1934). *Ethnography of the Surprise Valley Paiute*. Berkeley: University of California Press.
- Kilson, M. (1994). Bushcows in the sky. *Parabola*, 19(2), 80-82.
- Kottler, J. (1999). Columbian tribe rethinks tradition of giving up twins. *The Detroit News*, 22 Aug 1999.
- Kroeber, A. L. (1925/1953). *Handbook of the Indians of California* (Bulletin no. 78). Washington: Bureau of American Ethnology.
- Kurata, I. (1990). Pregnancy and birth from the perspective of "rebirth": A case study of east Sumba society. In K. Yamaji (Ed.), *Kinship, gender and the cosmic world: Ethnographies of birth customs in Taiwan, the Philippines and Indonesia*. Taipei, Taiwan: SMC Publishing, Inc.
- Larken, P. M. (1926-1927). *An account of the Zande. Sudan notes and records* (Vol. 9 & Vol. 10). Khartoum: McCorquodale & Co.
- Lagae, C. R. (1926). *The Azande or Niam-Niam: Zande organizations, religious and magical beliefs, family customs* (Bibliothèque-Congo, Vol. 18). Bruxelles: Vromant and Co.
- Leis, P. E. (1965). The nonfunctional attributes of twin infanticide. *Anthropological Quarterly*, 38, 97-111.
- Leroy, F. (1976). Attitudes toward twinning in primitive societies. *Acta Geneticae Medicae et Gemellologicae*, 25, 20-23.
- Leroy, F., Oruene, T.O., Koeppen-Schomerus, G., Bryan, E. (2002). Yoruba customs and beliefs pertaining to twins. *Twin Research*, 2, 132-136.
- Levy, J. E. (1964). The fate of Navajo twins. *American Anthropologist*, 66(4, part 1), 883-887.
- Lieberman, B. (1999). *Out of Africa*, presentation.
- Mair, L. (1934). *An African people in the twentieth century*. London: Routledge & Sons.
- Malmstrom, P. (1999). *Personal communication*, 7 Sept, 1999.
- Marshall, H. I. (1922). *The Karen people of Burma: A study in anthropology and ethnology*. Columbus: Ohio State University Press.
- Martin, J. A., & Park, M. M. (1999). Trends in twin and triplet births: 1980-1997. *National Vital Statistics Reports*, 47(24), 1-20.
- Masquelier, A. (2001). Powers, problems, and paradoxes of twinning in Niger. *Ethnology*, 40(1), 45-61.
- McIlwraith, T. F. (1948). *The Bella Coola Indians* (Vol. 1). Toronto: University of Toronto Press.
- Meier, R. J. (2001). *Personal communication*, 20 Nov 2001.
- Mubiru, D. (2001). *Personal communication*, 11 Dec 2001.
- Ndi, R. (2000). *The material culture of twins in West Africa*. Unpublished thesis, [online] <http://www.sfu.ca/archaeology/museum/ndi/mystudy.html>.
- Noble, E. (1991). Sharing space: Twinship experiences in utero. In E. Noble (Ed.), *Having twins* (Chpt. 6). New York: Houghton Mifflin.
- Olsen, R. L. (1967). *Social structure and social life of the Tlingit in Alaska*. Berkeley: University of California Press.
- Opler, M. E. (1946). *Childhood and youth in Jicarilla Apache society*. Los Angeles: Southwest Museum.
- Oruene, T. O. (1983). Cultic powers of Yoruba twins: Manifestation of traditional and religious beliefs of the Yoruba. *Acta Geneticae Medicae et Gemellologicae*, 32, 221-228.
- Osgood, C. (1951). *The Koreans and their culture*. New York: The Ronald Press Company.
- Parrinder, G. (1949). *West African religion, illustrated from the beliefs and practices of the Yoruba, Ewe, Akan and kindred peoples*. London: Epworth Press.
- Parsons, E. W. C. (1945). *Peguche, Canton of Otavalo, Province of Imbabura, Ecuador: A study of Andean Indians*. Chicago: University of Chicago Press.
- Paulme, D. (1940). *Organisation Sociale des Dogon*. Paris: Editions Domat-Montchrestien, F Loviton et Cie.
- Peter Prince of Greece and Denmark (1963). *A study of polyandry*. The Hague: Mouton.
- Pilsudski, B. (1910). Schwangerschaft, Entbindung und Fehlgeburt bei den Bewohnern der Insel Sachalin (Giljaken und Ainu). *Anthropos*, 5, 343-348.
- Piontelli, A. (1999). Twins in utero. In A. C. Sandbank (Ed.), *Twin and triplet psychology*. London: Routledge.
- Platt, J. S., & Rosa, C. (1999). Delayed interval delivery in multiple gestations. *Obstetrical and Gynecological Survey*, 54(5), 343-348.
- Pliny (Gaius Plinius Secundus) (1969). *National history in ten volumes* (Vol. II, Libri III-VII; H. Rackham, Trans.). Cambridge, MA: Harvard University Press.
- Price, R. (1983). *First-time: The historical vision of an Afro-American people*. Baltimore: Johns Hopkins University Press.
- Rattray, R. S. (1932). *The tribes of the Ashanti hinterland* (Vol. 2). Oxford: Clarendon Press.
- Raum, O. F. (1973). *The social function of avoidances and taboos among the Zulu*. New York: Walter DeGruyter.
- Renne, E. P., & Bastian, M. L. (2001). Reviewing twinship in Africa. *Ethnology*, 40(1), 1-11.
- Renne, E. P. (2001). Twinship in an Ekiti Yoruba town. *Ethnology*, 40(1), 63-78.
- Rothchild, E. (1994). Fictitious twins, factitious illness. *Psychiatry*, 57(4), 326-332.
- Samuelson, L. H. (1928). *Zululand: Its traditions, legends, customs and folklore*. Natal, South Africa: Mariannahill Mission Press.

- Sapir, E. (1922). Vancouver Island Indians. In J. Hastings (Ed.), *Encyclopaedia of religion and ethics* (Vol. 12, pp. 591-595). New York: Charles Scribner's Sons.
- Schapera, J. (1927). Customs relating to twins in South Africa. *Journal of the African Society*, 26, 117-137.
- Schram, L. M. (1954). *The Monguors of the Kansu-Tibetan frontier: Their origin, history and social organization*. Philadelphia: American Philosophical Society.
- Schwartz, H. (1996). *The culture of the copy*. New York: Zone Books.
- Segal, N. L., & Bouchard, T. J. Jr. (1993). Grief intensity following the loss of a twin and other relatives: Test of kinship genetic hypotheses. *Human Biology*, 65(1), 87-105.
- Seligman, C. G., & Seligman, B. S. (1932). *The Azande: Pagan tribes of the Nilotic Sudan*. London: George Routledge & Sons, Ltd.
- Shirokogoroff, S. M. (1924). *Social organization of the Manchus: A study of the Manchu clan organization*. Shanghai: The Commercial Press Limited.
- Shternberg, L. I. A. (1933). *Giliaki, orochoi, goldy, negidal'tsy, ainy:stati i materialy* (IAP Al'kor (Koshkin), Ed.). Khabarovsk: Dal'giz.
- Simmons, L. W. (Ed.) (1942). *Sun chief: The autobiography of a Hopi Indian*. New Haven: Yale University Press.
- Smith, A. M. (1974). *Ethnography of the Northern utes*. Santa Fe, NM: Museum of New Mexico Press.
- Spier, L. (1928). *Havasupai ethnography*. New York: American Museum of Natural History.
- Spier, L. (1933). *Yuman tribes of the Gila river*. Chicago: University of Chicago Press.
- Stegmiller, P. F. (1921). The religious life of the Khasi. *Anthropos*, 16, 407-441.
- Steward, J. H. (1941). *Culture element distributions: XIII, Nevada Shoshone*. Berkeley: University of California Press.
- Stewart, O. C. (1941). *Culture element distributions: XIV, Northern Paiute*. Berkeley: University of California Press.
- Talayesva, D. C. (1942). *Sun chief: The autobiography of a Hopi Indian* (L. W. Simmons, Ed.). New Haven: Yale University Press.
- Teit, J. A. (1956). Field notes on the Tahltan and Kaska Indians, 1912-1915. *Anthropologica*, 3, 39-171.
- Thompson, L. (1916). *To the American Indian*. Eureka, CA: Cummins Print Shop.
- Turnbull, C. M. (1965). *The Mbuti Pygmies: An ethnographic survey* (pp. 139-282). New York: American Museum of Natural History.
- Turnbull, C. M. (1965). *Wayward servants: The two worlds of the African Pygmies*. Garden City, NY: The Natural History Press.
- Underhill, R. M. (1939). *Social organization of the Papago Indians*. New York: Columbia University Press.
- Weiss, J. (1978). *Folk psychology of the Javanese of Ponorogo*. Ann Arbor, MI: University Microfilms International.
- West, C. R., Adi, Y., & Pharoah, P. O. (1999). Fetal and infant death in mono- and dizygotic twins in England and Wales 1982-91. *Archives of Disease in Childhood (Fetal and Neonatal Edition)*, 80(3), F217-220.
- Wilson, M. H. (1957). *Rituals of kinship among the Nyakyusa*. London: Published for the International African Institute by Oxford University Press.