

CHAPTER 3

THE TRADITIONAL SYSTEM OF BIRTH CARE

In this Chapter of the report, a summary of the traditional system of birth care as set out by the team from ILCA in their internal reports for the project, is presented first. This is because the work by ILCA is the most complete attempt by any of the project teams to set out the practices of traditional birth care as a system in its entirety, ranging from the spiritual vision of birth within the order of things down to particular herbs that are used in particular situations. Subsequent sub-sections then set out the main findings and regional variations of the reports from other project teams which dealt with this topic, from CIES, TIFAP, the University of St. Andrew's, and TCD.

3.1 THE SYSTEM AS DESCRIBED BY ILCA¹

3.1.1 Birth within the Andean cosmovision

In Andean cultures, birth is understood through a conceptual system which amounts to a *cosmovision* of the relationship between the heavens and the earth, fertility, life and reproduction. Present-day Andean cultures use complex astronomical systems to predict the coming of the rains and other moments of importance to the agricultural cycle (Urton, 1981: Ch. 9). Central to this astronomy is the shape of the 'black llama', which appears in the Milky Way overhead prior to the onset of the rains. Arnold and Yapita (1996, 1998) have shown how this black llama of the heavens is understood to give birth, her birth waters falling as rain to the earth and regenerating the crops, while her birth blood causes the animal herds to multiply, and forms the different colours of wool which make patterns in human weaving. In turn, the rain/birth waters dries to form the salt that is found in vast flats on the highlands of Bolivia, and is crucial to human existence and early commerce.

¹ This chapter draws directly on the five internal reports produced by ILCA for the project (ILCA, 1994; ILCA, 1995a; ILCA, 1995b; ILCA, 1995c; ILCA, 1995d). The writing of the chapter has 'cut and pasted' different findings of these reports together in what is often quite a complex inter-weaving. Since the object of this chapter was to produce a readable summary account in English of this large body of ethnographic work, it was decided not to reference the internal reports in detail. To have done so would have necessitated two or three references after each paragraph, and at times after each sentence, and would therefore have detracted from the readability of this report. References in this chapter are generally, therefore, to published works outside the project. Exceptions have been made for direct quotations from ILCA's internal reports. (See also Arnold and Yapita, 1996, 1998 and 2002.)

This kernel of a cosmovision which has many other mythical and practical ramifications, concerns us here because of the way it colours the understanding of the human mother in the birth process. Crucially, she is in a vertical position during birth because the birth liquids and baby must be born in the direction of the earth. The birth fluids, baby and placenta are all collected in a black llama skin (nowadays usually a sheep skin, as sheep replace the traditional herds), which is lined with cloths and placed on the ground below the mother. The birthing mother herself is understood to be like the earth, the 'Mother-earth' or *Pachamama*, which is particularly prominent in Bolivian-Andean cultures. She must be cared for and kept warm, like the earth by the sun, so that she will again produce children. Her clothing during birth is understood by analogy with the rich covering of the earth by crops at harvest-time. The birth fluids and placenta must be buried in the earth, within the house which symbolises the transmission of ancestry in the female line.

3.1.2 The ethnophysiology of pregnancy and birth

3.1.2.1 Fertility and conception

Conception is understood to take place through the union of the male seed with the woman's blood. Women are understood to be fertile during their menstrual period, which is aligned with the phases of the moon. But conception is said to take place either right at the beginning, or in the last moments of the menstrual period. The associations of the *flow* of blood with 'health', and of its coagulation into lumps as 'illness', underlie the widespread cultural description of both pregnancy and birth as states of 'illness'. The gradual diminution of blood flow over a woman's life causes the reduction of her fertility, and makes later pregnancies longer and births more difficult.

Signs of pregnancy are the 'rising of the stomach', the hardening of the nipples, the colour of urine, and nausea at certain foods (especially at urban, refined foods), as well as the absence of menstrual periods.

3.1.2.2 Pregnancy and the development of the foetus

The foetus is understood to be fed by blood from the placenta during its development, which some informants describe as sucked from 'teats' all over the placenta. The foetus is described according to notions of gender based on the idea that the male foetus is fully formed from the beginning, and made of 'hard' matter, while the female foetus is simply a soft ball of blood until much later in pregnancy. Experiences of foetal miscarriage are used to support this theory. The pregnancy of a male foetus is said to be longer and more difficult than that of a female foetus. During pregnancy the woman's body is said to be

in a 'warm' state, according to humoral theory, and if herbs are taken, they must therefore be 'cool' ones.

In Qaqachaka, the development of the foetus is understood partly through a series of metaphors drawn from spinning, weaving and winding wool. Weaving is the central artistic and recording cultural activity in Andean societies, and it is mainly women's work. The creating of elaborate textile patterns from wool thread is seen as like the creation of the baby from the placental cord, as the thread of life. The development of the baby in the mother's belly is seen as like the growth of wool around a spindle, or a ball of wool as it is wound or plied. The size of the baby's head is compared with the ball of wool wound or spun by the mother, and she should therefore not wind too tightly during pregnancy, or the baby's head will grow too big.

Much emphasis is placed on the correct positioning of the baby during pregnancy, from about the fourth month on. Ideally, the baby's spine should be aligned with that of the mother's, with the head downwards. If the mother experiences pain in the abdomen or back, this is often ascribed to the baby being to one side. Incorrect positioning is in turn often explained by the mother's having worked too hard, or lifted heavy weights.

3.1.2.3 The two births: the baby and the placenta

Rather than dividing the birth into three stages, as in western thinking, Aymara thinking is in terms of two births, that of the baby and that of the placenta. They are sometimes thought of as two beings who were sleeping together inside the mother's body. Just as the baby must wake up to be born, so must the placenta. The latter is sometimes called the 'mother' or 'grandmother' of the baby, and sometimes its *ajayu*, a type of soul. After its birth, the placenta will be buried, with rituals that suggest a wake and funeral.

As the mother in labour approaches the actual birth of the baby, her breathing is important. Air should not escape through her mouth, as this will cause her to lose strength. Women are said in general to have 'two holes' through which air comes out and energy is lost, whereas men have only one, a belief that is used to argue that women are weaker than men.

First births are thought to be more difficult, as the woman 'does not know'. The next few births are said to be easier, with births getting increasingly difficult from about the sixth on.

3.1.2.4. Beliefs about the placenta and the uterus

Aymara language, like Quechua, does not always appear to recognise a difference between the placenta and the uterus, particularly when the placenta is still inside the body. Nevertheless, different terms exist for different parts of the placenta, distinguishing the membrane (*jakaña*) from the area denser with blood (*ithapu*). The coming away of the bloody area is related to the releasing of the amniotic waters. In celestial terms, the *ithapu* represents another area of the Milky Way, where the baby llama is located, attached by a placental cord to its mother, the black llama. When the *ithapu* falls to the horizon, the mother llama's waters are released, and the rainy season begins.

After the birth of the baby, a placenta whose birth is delayed is often referred to as 'mother', and called on as such. The placenta is thought to be in danger of going up again into the mother's body, and if the umbilical cord has been cut, the end of it is tied to the mother's toe with a woollen thread in order to prevent this happening.² But similarly, there is a widespread belief that even after the placenta is expelled, the uterus behaves like a mother who has lost her child. The uterus, too, can rise up through the body and asphyxiate the mother. The term generally used for this wandering uterus or placenta is *märi*, deriving from the Spanish word for mother, and there are many references to the uterus moving through the body, looking for the child it has lost.

A rather different set of beliefs about the placenta emerges in another series of metaphors. In one of these, the wool thread used to anchor the placenta is related to the male llama, known as *guía*, the 'guide' or 'leader', that on journeys goes in front of the troop of llamas. The thread, as 'guide' will bring out the baby, and then all the riches of the world that also come out of the stomach. The placenta is said to have 'gold' and 'silver' corners. A more specific elaboration of this myth was found in Inka Katurapi, where it is related to the origins of the Incas. Here, the thread, or alternatively, the baby, is likened to the 'lead' llama which came before the Inca when he emerged from the cave of Paucartambo. People are said to have emerged one by one from the 'oven' behind the

² Although this practice is thought of locally as specifically Andean, it is important to note that a very similar practice is reported historically in Europe. The practice there goes along with a similar belief that the placenta will 'go back in' and not be born. Murphy-Lawless (1996, 1998a) quotes Sir William Wilde, writing in 1849 about midwifery practices in rural Ireland

In almost all instances among the lower orders in the remote districts, where the placenta has been retained for an unusual length of time, the cord is either tied to the patient's thigh, or held fast by one of the attendants. [...] It is a popular belief that if the funis was let go, it might slip back into the uterus and be for ever lost sight of (Wilde, 1849, quoted in Murphy-Lawless, 1996, 1998a).

Inca. In northern Potosí, the mother's belly is referred to as the 'strongbox of Father-King Inca', and the source of riches and of the ongoing supply of food in the world. Each child that is born is said to be an Inca, 'since we are his grandchildren'.

These latter instances which compare the womb to the warm cave from which the Inca emerged, and to the sources of riches in hot mines under the earth, provide a very strong indication of the cultural awe in which the placenta is held. The notion that the baby is only the 'leader' of the riches that will follow in the form of the placenta helps to interpret the generally greater emphasis on the birth of the placenta than on the birth of the baby. This is the time of danger, when the mother is particularly at risk. This emphasis is reflected in practical and ritual ways in the care of the mother, as well as in the ritual cleaning and 'burial' of the placenta along with symbols of crops, work and wealth, chosen to ensure the future economic well-being of the new baby.

The importance of the wool thread in these myths of birth and origin might lead to the conclusion that the practice of cutting the cord and tying it to the big toe must be pre-hispanic. However, the alternative versions that mention the baby itself as the 'lead' llama in the Inca birth, suggest that this is not necessarily so. This latter ties in with the belief of some Aymara midwives that it is wrong to cut the cord before the placenta is born, since this will cause the placenta to 'rise up' and not be born.

Finally, in this complex array of beliefs about the placenta, there is the notion that the placenta represents the *ajayu* soul of the new baby. If the baby does not regain this soul that it has lost, it will die, along with the mother. The loss of *ajayu* is a common explanation of illnesses among children, particularly those ascribed to *susto*, or fright sickness. The *ajayu* is usually recalled by a specialist in the technique, and similar calling techniques are used by the midwives or relatives awaiting the birth of the placenta.

3.1.2.5 The ethnophysiology of retained placenta and haemorrhage

The previous section has outlined the main spiritual and mythical beliefs about the placenta. It is worth reiterating that the existence of such a wide body of cultural elaboration around the birth of the placenta and a delay in its expulsion is in itself testimony to the perception of this as the main danger period during childbirth.

These beliefs about the placenta are related in the main to the fear that it will not be born, which is described culturally as the danger that the placenta will 'go back up' into the body, as opposed to coming down. Sometimes this is described as the danger of the

placenta ‘leaping’ (*salta*) and causing the death of the mother. One midwife saw the practice of cutting the cord before the placenta has come out as a direct cause of the placenta going back up into the body. She also saw the practice of twisting the thread that is tied to the toe, so exerting gentle traction on the cord, as causing the placenta to tear, with the danger of a piece being left behind.

Yet another, more physiological explanation is frequently invoked in talk about retained placenta: the problem is said to be caused by the action of the sun on the woman’s back, especially if she has done too much weaving during pregnancy. Typically, Andean women weave on a loom staked horizontally into the ground. They sit on the ground to weave, with their legs tucked under them, leaning sharply forward from the waist and hips, and stretching with their arms to reach the furthest warp. As weaving requires long concentration spans, a woman only weaves if she can finish all her morning household work early, and get a long afternoon at the work. This entails sitting in this position for many hours on end, with the hot midday sun beating down on the woman’s back. The position is also held to be dangerous in that it can ‘squash’ the baby, causing incorrect positioning and a difficult birth. But it is particularly invoked to explain a retained placenta, and is an explanation that is seen as born out in practice by the ‘burnt’ aspect of a placenta that is born after a long wait, indicating where it has been ‘stuck’ to the woman’s back by the action of the sun.

Haemorrhage has not been found so explicitly as a fear expressed in cultural beliefs. This is perhaps because of the association in ethnophysiological thinking of blood flow with health. Blood flow after birth is seen as particularly important and beneficial because it clears out the unhealthy lumps of dried blood that are left in the uterus. The old and very experienced midwife in Inka Katurapi, who disapproved of early cord cutting practices, reported never having seen a woman haemorrhage after birth. However, in Qaqachaka, haemorrhage was said by many women to be the commonest cause of maternal death. Certainly, midwives have a variety of herbal remedies for a haemorrhage that is considered excessive. As with modern biomedical practice, however, deciding when a blood flow constitutes haemorrhage cannot be done by any simple, objective measure, but must take into account many of the individual characteristics of the woman and her birth.

3.1.2.6 The post-partum period and *sobreparto*

The period after birth is held to be potentially extremely dangerous for a woman. This is shown both at the ritual level, where the fear is of evil spirits that will take her away, and at the level of traditional medical theory, where the body is thought to be open and

porous, and therefore susceptible to illness. The risk is at its greatest in the period between the birth of the baby and the birth of the placenta, when the mother must not fall asleep; but it goes on through the days and weeks after the birth, when strict observances of care are necessary. During the weeks of rest after giving birth, the mother must not use a sitting position (equivalent to sitting on the ground, or squatting, in our terminology), since this encourages the blood to harden and form into a lump, instead of being ‘cleansed’ by flowing away.

The symptoms of *sobreparto* (literally, ‘after the birth’), include fever, and pain in the abdomen, so corresponding to those of puerperal fever, which claimed large numbers of lives in western hospitals prior to the discovery of antiseptics (Tew, 1995: 146). They also include an emphasis on the hands, where fever is located, and also a feeling of being ‘all holes’. *Sobreparto* is much feared as a potentially lethal disease, and is attributed to a particular devil called *achachi*, which emerges from lakes, carried by the wind, and takes away the woman by night. In physiological terms, the illness is often attributed to the failure to fulfil the strict cultural norms of care that are applied in the post-partum period, and which are described below (section 3.1.6). Nutrition is held to be important in its aetiology: a woman is more likely to contract *sobreparto* if she is living alone, and less likely if she is living with her mother-in-law and being well nourished.

The danger of the womb rising up and asphyxiating the woman by blocking her throat has already been mentioned. The womb after giving birth is out of place, and moves from side to side, trembling, as it searches for the baby. This movement can also lead to the problem of uterine prolapse.

3.1.2.7 Ethno-classifications of types of womb and body

Various types of explanation are given for why some women tend to give birth more easily than others. In Qaqachaka, women who give birth easily are referred to as having an ‘animal womb’, while those who take longer have a ‘human womb’. The word used for womb in this classification is not the usual one, and has a meaning connoting a woman’s ‘destiny’. Such womb-types are inherited from one’s mother and female ancestors. In Inka Katurapi, the more usual classification of womb types, or types of birth, is according to humoral theory. So, an easy birth is described as a ‘wet’ one, and a difficult one as a ‘dry’ one. Wetness or dryness in turn derives from the amount of blood that the woman has, and a woman with much blood is said to have an easy birth.

In a similar way, women’s bodies are classified into ‘warm’ and ‘cold’, with ‘warm’ bodies having easier births than ‘cold’ ones. Such factors, along with a woman’s age and

parity, as well as her actual physical condition, are all taken into account when traditional midwives assess the degree of difficulty a birth is likely to entail.

3.1.2.8 Theories of causes of problems in pregnancy and birth

A series of prohibitions surrounds women's work during pregnancy. These are not absolute rules, and refer more to a sense of moderation in activities such as spinning, weaving and lifting heavy loads. The prohibitions were found to be less strictly observed in Inka Katurapi than in Qaqachaka. However, problems in birth may be ascribed retrospectively to having engaged in one of these activities to excess. For instance, as already mentioned, a woman should not weave a lot during pregnancy, as the position is said to cause the baby's head to 'flatten' and have difficulty being born; in addition, being much time with the sun on her back will cause the placenta to 'stick'. Neither should she wind wool too much, or the cord is likely to be wrapped round the baby's neck. In Qaqachaka pregnant women were told always to wind wool towards the left for an easy birth, since winding towards the right caused the baby to be wrapped up more tightly in the placenta and umbilical cord.

Twins are much feared culturally, especially if of opposite sexes, when they are believed to have had sexual intercourse together in the womb. It is very rare for both twins to live beyond infancy, and one frequently dies. They are believed to be caused by lightning, which strikes them into two in the womb.

Miscarriages are believed to be caused by the pregnant woman frequenting certain places believed to be evil, or 'ugly'. The blood flow of a miscarriage is considered more dangerous than that of birth, and can cause death if all the woman's blood is exhausted.

There is no equivalent of pre-eclampsia in traditional terminology. Swelling, especially of the feet and legs, is sometimes encountered, and is ascribed to the entry of 'air' into the body.

3.1.3 Care during pregnancy

3.1.3.1 Specialist care

Specialist midwives are called on mainly by first-time mothers, and women who suspect some problem in their pregnancy such as malpositioning of the baby. Visits are usually carried out at about one month or three months before birth. The midwife always first interviews the woman about how she has conducted herself during the pregnancy, if she

has had a fall or been knocked over by a drunken husband, if she has carried heavy weights, or spun or woven too much. As older members of the community with specialised knowledge and experience, midwives offer advice to pregnant women.

Massage is then used to ascertain the precise position of the baby and return it to the 'upright' position. If the baby is in transverse lie ('like a horizontal bridge'), it is rubbed on both sides to make it return to the upright position. If a hand is felt to be sticking out, it is massaged back into place. The midwife detects twins by the presence of two heads, and massages one into upright position, followed by the other. Other problems are recognised, such as when a baby is positioned too low, so that the woman cannot walk; alternatively, the baby may be positioned too high, and be pressing against her chest.

The technique of massage used in pregnancy involves putting both hands on the woman's belly, moving them into the centre from both sides, and in an upwards and downwards direction. In Qaqachaka a flamingo feather was also used, followed by the use of a small, smooth, grinding stone, but in Inka Katurapi only the hands were used, with the importance of concentration being stressed. The procedure can cause localised pain, which subsides after resting for one day. But midwives emphasise that all treatments of pregnant and birthing woman should be carried out in an atmosphere of calm, always taking care not to cause any 'fright' (*susto*) to the woman.

Midwives use taking the pulse as a way of ascertaining how healthy the woman's blood flow is, and massage is gauged in relation to this. The pulse is also used to tell whether birth is close or not. All the midwives interviewed stressed the importance of hand-washing before massaging the woman in pregnancy, as well as during birth or to receive the baby. Hot water and soap are used, with urine also being used as a disinfectant.

When the baby does not right itself with massage, then the practice known in Spanish as *manteo* is employed. Descriptions of *manteo* vary, but generally the woman lies down on a cloth or blanket, and the midwife with the help of the woman's husband will take the corners of the blanket and roll her from side to side three times. The word used in Aymara for this practice means 'making the baby run', in other words, making it move into the correct position, which is the aim of all these processes. It seems that in general, female midwives perform gentler forms of *manteo*, which can perhaps be understood as more like massage with a cloth, while male midwives specialise in forms of *manteo* which involve a large woollen blanket and more strength on the part of those performing the technique.

3.1.3.2 Family care and ‘looking after oneself’

A woman is expected to look after herself and take special care during pregnancy, with regard to work, to food, and to where she goes. The prohibitions on weaving and winding wool have been mentioned. A woman should not go alone far from the house, as she might normally in pasturing animals; nor should she undertake heavy work in the fields. On the other hand, she should not simply stay sitting down, but should do a lot of walking during pregnancy, which is seen as like a form of massage for the baby. Her food should be that which gives her strength, including wheat, barley and the nutritious Andean grain, quinoa, as well as fresh meat, and where possible, green vegetables.

Some women report breaking these norms with some bravado, such as those relating to not going to faraway places with their flocks, or working in the fields, but the need to walk a lot during pregnancy seems to be very generally observed. Although women often blame problems retrospectively on not having ‘looked after themselves’ properly, in practice, a woman’s ability to cut down on her work and eat well depends on the cooperation of her husband and other relatives.³ A midwife’s advice to a couple may include a scolding of the husband for allowing his wife to do too much work.

Herbal cures are used for problems during pregnancy, and here family knowledge overlaps with specialist knowledge. Women themselves tend to specialise in collecting the herbs that are relevant to pregnancy and birth. Each family has its own ‘medicine chest’ in the form of a store of herbs, and knowledge and specimens are exchanged with neighbours and kin.

3.1.4 Care during the birth of the baby

3.1.4.1 Principles of care

Care during birth obeys three principles: it must give the woman ‘strength’, or ‘force’; everything must be done quietly and calmly, so as not to ‘frighten’ the woman; and the woman must be kept in a state of consciousness, and not allowed to sleep or ‘faint’.

³ It may also be the case that a woman’s looking after herself during pregnancy is related to the issue of reproductive choice, and whether the pregnancy is wanted or not (see Rance, 1993: 49).

3.1.4.2 Family care

In the days before the birth, the woman or her relatives should have prepared clean cloths and bedding, and have assured the stock of herbs for the contingencies of birth. When the birth pains begin, they warm a room, usually the kitchen of the house, heating pots of water over a fire, and sometimes burning incense or aromatic plants. Relatives will usually prepare herbal medicines for the woman, and she will drink half a cup, or a cup of this warm, herbal tea. Often the husband will massage the woman, and when the baby is near to being born, he will support her and hold her, 'to give her strength'. He will also perform *manteo*, if the baby is 'stuck' or wrongly positioned. Some men help their wives by tying the *faja*, a wide woven belt, above the woman's abdomen, to 'stop the baby going back up' and to 'stop the air escaping', but this practice is not usual during the actual birth of the baby, and many women prefer to untie all clothes around their abdomen. So that she does not lose consciousness, a relative holds the woman's head.

It is important to note that the relatives present are at the command of the woman herself during childbirth. They are there to do what she wants and her state of mind is paramount. If she wishes them to retire during the birth itself, they will leave her alone. The relatives chew coca leaves, signalling the sacred nature of their participation, and the woman herself prays constantly to the female saints of childbirth and to the tutelary gods of the place.

The birth position is generally 'on all fours' in Inka Katurapi, while in Unkallamaya, women prefer to squat. These positions are seen as 'giving the woman force', as opposed to the hospital position of lying on her back, which takes her strength away.

3.1.4.3 Specialist care

Often a midwife is an experienced woman from inside the extended family, but sometimes a midwife is called from outside the family. A midwife will talk to the woman and ask her when labour began, but midwives argue strongly against any notion of a 'normal' time for birth, recognising that the pattern of pains and the overall length of time is different for each individual woman. Then she will see what herbs are available and sometimes send the husband in search of a particular herb from neighbouring households. She takes the woman's pulse, looks at her belly and feels the baby's descent externally, all in order to assess how well the labour is progressing. She also listens with her ear on the woman's belly with the same purpose.

Like hospital personnel, midwives resent being called to births without having seen the woman in pregnancy, or when the labour is in an advanced stage of difficulty. It is important to know the individual reproductive history of the woman, as well as what kind of body type, womb type and birth type she has, in order to assess what kind of herbal treatment to give her.

Traditional midwives are very opposed to the practice of putting the hand up the vagina of the woman during birth, which they are aware is practised by doctors in the institutional system. They see the hand as 'poison' and the practice as dangerous, but they also see the need to respect the woman's sexual privacy, and do not lift her skirt or petticoats to see the baby. Nevertheless, several midwives told stories of other midwives who have 'put their hand in' in cases of malpresentations or retained placenta. Always the hygiene necessary to do this is described in detail. The exceptional nature of this practice is emphasised, and never was there any suggestion that the insertion of the hand would be used routinely.

As in pregnancy, a midwife attending a birth will use massage as her main technique, along with herbal medicine, where help is needed by the woman. She works without demonstrating hurry, and may be with the family several days. During the whole period of labour, everything must happen very quietly. The midwife moves around as silently as possible, and if anyone comes in, they must sit down in silence. When she speaks to the woman giving birth it must be 'slowly and gently', but it is also important to say to her in good time, 'You are going to give birth and be all right'. The midwife must also reassure the relatives that the woman is going to be all right. The purpose is to 'make everyone content'. This close attention to the psychological and social aspects of birth is contrasted unfavourably with hospital birth by traditional midwives, where the woman can easily be 'frightened' and labour inhibited by the sudden entry of strange people.

3.1.4.4 Difficult births

Midwives report successfully managing cases of breech births, and of hand presentations. In the case of a breech birth, midwives talk of the danger of the head getting stuck, and the need therefore to let the baby be born 'very slowly, little by little'. One must massage very gently from side to side, and not rub hard. With hand or shoulder presentations, again, midwives can generally successfully manage these using gentle massage 'on both sides'. One woman from remote Qaqachaka gave a detailed description of midwives' practice in cases of hand presentation. First they feel the woman's body to ascertain the exact position of the baby's head. Then they put her on her side with her leg raised on the side where the baby's head is. They then roll her gently in a cloth, while pressing a

little on the side where the head is so that the hand will go back inside. In this way the baby goes back up, and after a while, the contractions start again and the baby is born. In the case that this woman had witnessed, the baby was born an hour after this procedure was followed.

The old woman midwife in Inka Katurapi, who had attended 50 or 60 births during her lifetime, had only once referred a woman to hospital. The woman had come to her when the baby seemed already dead inside her, and it was in a transverse lie ('like a horizontal bridge'). The dead baby was extracted in the hospital in Achacachi 'by cutting', (it seems that this refers to episiotomy rather than Caesarean), and the baby's head was found to be very swollen as the process of decay had set in.

The same midwife is confident about handling hand presentations. 'One must not be afraid', she says. With massage one puts the baby back in place. While others say that women die from this, she has never seen this happen.

Midwives are also confident about handling cases where the cord is wrapped around the baby's neck, a situation they suspect when the birth is slow. They talk of unwrapping the cord when the head appears, or otherwise when the baby has been born, taking great care not to pull on the placenta. Often these practices are accompanied by the ritual unwinding of a thread over the woman's stomach, so as to undo the cause of the problem.

3.1.5 Care during the birth of the placenta

We have already argued that the existence of the most elaborate body of mythology around the birth of the placenta indicates the danger that this stage of birth really holds for the communities and cultures concerned. This danger is borne out in looking at the practices of care surrounding this third stage of labour, where at both ritual and physiological levels, a wide variety of practices parallel the mythological concerns.

The ILCA reports conceptualise the delivery of the placenta as like a second birth in traditional thinking. So, in all the areas studied, once the baby is born, the mother must be given strength and help to go into this second birth. The norm is that she is given a herbal tea similar to that which helped her in the birth of the baby. It is particularly important that she is kept warm. She is encouraged both verbally, and sometimes with gentle massage. All the communities also shared the practice of treating the period immediately after the birth as one in which both mother and baby are in extreme danger from evil spirits. The mother must therefore be kept awake, by talking to her constantly. Candles are lit, and coca is chewed by the participants, in order to stay awake. Saucepans

are banged at the front door, and sometimes shotguns are fired into the air to frighten away the spirits. In some areas, these practices are generalised for a longer time period after the birth, but the elderly midwife in Inka Katurapi described them in the context of the necessity to wait patiently for the arrival of the placenta.

Beyond these general norms, the ILCA teams found that in Inka Katurapi a different system of care during the birth of the placenta is used from that used in Qaqachaka and in Unkallamaya. This provided the opportunity to compare the two systems in the quantitative phase of the project.

3.1.5.1 The two methods of cord-cutting and placental management

In Qaqachaka and in Unkallamaya, the method of cord-cutting in relation to the delivery of the placenta is the one generally used in the areas studied by the other project teams, and is probably nowadays the most common one in highland, rural areas of Bolivia.⁴ This involves the cutting of the umbilical cord as soon as possible after the delivery of the baby, the cord first being tied in two places with woollen thread. In cases where the delivery of the placenta is delayed, the end of the cord still attached to the placenta is then itself tied with a length of woollen thread to the big toe of the mother's left foot. In some areas, women were insistent that no pressure is exerted on this thread by the mother; while in others, such as Qaqachaka, the practice is for the mother to exert gentle pressure on the placenta via the thread with her foot when she feels a contraction. Where this system is practised, the woman lies down for the birth of the placenta, even if she was in an upright position for the birth of the baby.

However, in Inka Katurapi the practice prevails of waiting to cut the cord until the placenta has been born. This means not only that the cord is left intact, but also that the mother waits in the position she was in for the birth of the baby, namely, on all fours. Moreover, these practices are articulately defended by the midwives there as lessening the danger of haemorrhage and of placental retention which they see as incurred by the system of cutting and tying the cord practised in other communities. In particular, the elderly midwife in Inka Katurapi, who would have influenced the practice of other

⁴ Other studies of childbirth practices confirm the distribution of the two systems found in ILCA's studies. A study by AYUFAM reports that the cord is not cut until after placental delivery in one area out of six which they studied. This area was Comanche, a highland, Aymara-speaking area in the Department of La Paz. In one 'valley' area, the system of cutting the cord and tying it to the big toe was found, although the information is not complete for all the areas studied (AYUFAM, 1993). It is also the case that CIES found in its qualitative study in El Alto that some women said that the cord should not be cut until after the placenta has been delivered (CIES, 1995a: 23). Again, these were migrant women from highland, Aymara-speaking areas. Some midwives from these areas who came to the Midwives' Encounter in El Alto, also said that this was their practice.

midwives in the community, argues the necessity to wait with patience for the birth of the placenta. She says quite explicitly that early cutting of the cord causes maternal death. Interestingly, her explanation of the mechanism of death uses the same cultural elements as are used to justify the practice of cutting and tying the cord:

Sometimes some people tie it here (to the toe), and they detach the baby when the placenta has still not come out. That is why they tie it here. But the placenta leaps. It is wrong to do that. It leaps, and the mother dies. (ILCA, 1995a: 43)

She further explicates the danger as:

when the placenta moves from side to side, it enters the body again and the mother is dead in no time. (ILCA, 1995a: 43)

Her explanation here shows that the fears that the placenta will 'leap' and asphyxiate the mother, or simply 'go back inside' and not be born, are common to both systems of cord cutting. In terms of this cultural logic, it is easy to sympathise with her view that it is better to leave the baby attached to the cord, as the weight that anchors the placenta to the ground.

In the areas where the cord is cut immediately and attached to the mother's toe, it is also the case that these practices are understood as preventing the womb travelling back up into the mother's body. However, both the practice of immediate tying and cutting of the cord, as well as the practice of pulling on the cord when a contraction occurs, are easily recognisable as standard practices of institutional medicine in relation to third stage labour. Lying down may also be an emulation of hospital practice. It is highly likely that these practices have been adopted in the Bolivian countryside at some stage, either because of active proselytisation on the part of medical professionals, or through a process of emulation of hospital practices by country people.

There is evidence from this project in relation to these and other birth practices that some rural people are all too willing to adapt and change in areas where they are persuaded that hospital practices lead to safer outcomes. Even within the hospital environment, the greater safety of interventionist practices has been contested by professional midwives, on both statistical (Tew, 1995) and physiological grounds (Inch, 1989). In hospitals, the adverse effects of intervention are nowadays mitigated by the further pharmaceutical

intervention available in a modern hospital.⁵ Nevertheless, the ‘physiological model’ of childbirth would predict adverse outcomes if these practices are transferred to settings where pharmaceutical back-up is not available. This report will argue that there is a strong probability that this is the case in relation to the practices of immediate cutting of the cord, and of lying down for the birth of the placenta, as practised widely in the Bolivian countryside.

3.1.5.2 The quantitative study of systems of placental management

The application of the quantitative questionnaire in the second phase of the main fieldwork made it possible to put these theories to the test. Specifically, it was possible to test the claim made by the traditional midwives in Inka Katurapi that their practice of ‘waiting’ for the placenta to be born (that is, not cutting the cord, and leaving the woman in the all fours position) leads to better outcomes in terms of placental delivery and the risk of haemorrhage. The test is only partial, since while the project collected good data on time waited for placental delivery, the questions on blood loss were not adequately adjusted to cultural meanings of blood.⁶ However, if this claim is verified with regard to the time taken for the placenta to be delivered, then strength is lent to our own argument that emulation of institutional medical practices can lead to a drastic worsening of outcomes for women giving birth outside the modern hospital setting.

Any interpretation of these results must be prefaced by the qualification that the numbers involved in each case are small. We would therefore prefer them to be treated as the results of a pilot study, which might be used to justify larger-scale research. But on the face of it there *is* a difference in outcome in relation both to cord-cutting practice and to position for the birth of the placenta. In both cases, the measure of outcome is the time taken for the placenta to be born, as reported by women in relation to their last previous birth. Below are tables of these relationships, taken from the data from the two communities of Unkallamaya and Inka Katurapi. It is generally the case that in Unkallamaya the cord is cut soon after the birth of the baby, and the woman then lies down for the birth of the placenta, while in Inka Katurapi, the cord is left until after the delivery of the placenta, and the woman stays in an upright position. As there were some exceptions to this general practice in each community, the tables have been compiled

⁵ We do not here enter into the debate as to whether obstetric intervention in birth always leads to less safe outcomes, as is sustained by Tew in her statistical analysis of the figures in Britain and other Northern countries (1995).

⁶ See the discussions of the meanings of blood in all of ILCA’s reports; also in TIFAP, 1995b; and TCD/TIFAP 1996. For discussions of the difficulty with the questions on blood loss in the questionnaire, see ILCA, 1995d; TIFAP, 1995d, and TCD, 1995c.

afresh from the data in order to show the distinction between the two systems of cord management clearly.

TABLE 3.1 TIME TAKEN FOR THE PLACENTA TO BE BORN, BY WHETHER THE UMBILICAL CORD IS CUT BEFORE OR AFTER THE BIRTH OF THE PLACENTA							
<i>Cord cut:</i>	<i>B</i>	<i>f</i>	<i>r</i>		<i>A</i>	<i>t</i>	<i>r</i>
<i>Time taken:</i>	<i>(a) no. of cases</i>	<i>(b) % of cases</i>	<i>(c) cumulative %</i>		<i>(a) no. of cases</i>	<i>(b) % of cases</i>	<i>(c) cumulative %</i>
<i>Immediately</i>	4	18%	18%		8	31%	31%
<i>Up to 1/2 hour</i>	8	36%	54%		10	38%	69%
<i>Up to 1 hour</i>	5	23%	77%		7	27%	96%
<i>Several hours</i>	4	18%	95%		1	4%	100%
<i>One day</i>	1	5%	100%		0	0%	
<i>Several days</i>	0	0%			0	0%	
TOTAL	22	100%	100%		26	100%	100%

Source: compiled from data presented in ILCA Quantitative Report (1995c)

The cumulative percentage totals presented in column (c) of each half of Table 3.1 show that in this small sample, there was more rapid delivery of the placenta when the cord was managed as advocated by the midwives of Inka Katurapi, that is, left until after the placenta has been delivered. This finding is also in line with the predictions of the model of the 'physiological management' of third stage labour put forward by professional midwives in Europe (Begley, 1990).

The other aspect of 'physiological management' that can be tested with the data from these two communities is that of the position of the woman during placental delivery. The 'physiological model' advocates an upright position during both the birth of the baby and the delivery of the placenta. From the data it is possible to distinguish three categories of position: those women who were lying down for both the birth of the baby and the birth of the placenta; those who gave birth to the baby in an upright position and then moved to a lying position for the birth of the placenta; and those who were in an upright position for both. Table 3.2 measures these three positions against time taken for the placenta to be expelled.

TABLE 3.2 TIME TAKEN FOR THE PLACENTA TO BE BORN, BY THE POSITION OF THE MOTHER DURING BIRTH OF THE BABY AND THE BIRTH OF THE PLACENTA									
<i>Mother's position:</i>	<i>Lying down both</i>			<i>Upright for baby; lying down placenta</i>			<i>Upright for both</i>		
<i>Time taken:</i>	<i>(a) no. of cases</i>	<i>(b) % of cases</i>	<i>(c) cumulative %</i>	<i>(a) no. of cases</i>	<i>(b) % of cases</i>	<i>(c) cumulative %</i>	<i>(a) no. of cases</i>	<i>(b) % of cases</i>	<i>(c) cumulative %</i>
<i>immediately</i>	2	15%	15%	2	14%	14%	8	38%	38%
<i>Up to 1/2 hour</i>	5	39%	54%	5	36%	50%	9	43%	81%
<i>Up to 1 hour</i>	3	23%	77%	5	36%	86%	4	19%	100%
<i>Several hours</i>	3	23%	100%	1	7%	93%	0		
<i>One days</i>	0			1	7%	100%	0		
<i>Several days</i>	0			0			0		
TOTAL	13	100%	100%	14	100%	100%	21	100%	100%

Source: compiled from data presented in ILCA Quantitative Report (1995)

Again, on the face of it, Table 3.2 shows that the upright position was, in this small sample, a better guarantor of placental outcome than a lying-down position. The data must be read with caution, in that it is possible that in cases of lengthy delays in delivery of the placenta, the woman is likely to want to lie down to rest, even if she started the third stage of labour in an upright position. However, the first category, those who remained in a lying-down position for both birth of the baby and of the placenta, side-steps this possibility, since these cases exhibit a statistical pattern very similar to those who lay down only after the birth of the baby. *Prima facie*, these data make a clear-cut case for the upright positions in terms of speed of placental delivery, a factor both midwives and biomedical doctors agree is important to maternal survival.

Another word of caution is that these data from a small sample in the quantitative phase do not reflect stories that were told to the ILCA team during the qualitative phase regarding several women in both communities who had delivered the placenta after a wait of up to three days, without apparent harm. One midwife talked of having cared for a woman for five days until she expelled the placenta. Neither do these data take account of women who had died in childbirth. In Inka Katurapi, for instance, four cases of maternal death were recounted anecdotally as having occurred 'in recent years' in the area, and in two of these, retained placenta was a factor.

3.1.5.3 Practices to release the placenta and prevent it rising

The practices used to facilitate the delivery of the placenta are intimately bound up with the theories of the placenta described earlier. For instance, as the 'soul' of the baby, the placenta is called on by name to wake up, often accompanied by knocking gently on the mother's stomach with an object such as a comb or wooden spoon. In cases where there is a fear that the woman has been too much in the sun and the placenta has stuck to her back, she is given pork grease, or snake grease to drink, and her back is rubbed with the fat. Sometimes a bowl of steaming *ulluku* ('smooth potato', a relative of the potato) is placed beside her to cause her to sweat. And a poultice of beaten egg may be placed on her back.

As already mentioned, the fear that the placenta will 'return' to look for the baby is guarded against in Inka Katurapi by leaving the baby attached to the placental cord until after the placenta has been born. In Unkamallaya, as in many other areas, the cord is cut, but its end is attached to the mother's big toe, with the same purpose.

Medicinal herbs are taken which are similar to those used to speed up the process of birth of the baby. Also, soapy water is often given to the mother to drink; like snake grease, this is understood by analogy as allowing the baby or the placenta to just 'slip out'.

3.1.5.4 The burial of the placenta

Although this report is concentrating on those aspects of the birth process which can be related to modern 'physiological' notions of birth, it is also important to understand that some aspects of the process which may seem to outsiders to be 'merely' ritual, or 'cultural' aspects, in fact have potential physical consequences for those inside the culture. Hence, the rituals surrounding the cleaning, 'reading' and burial of the placenta are not only designed to tell the fortune of the child, but are also designed to protect the mother from possible harm that the placenta can bring to her. There is a fear that even after it has been expelled it may come back on her in the night and smother her. This danger is avoided in Inka Katurapi by burying the placenta well with an iron plate on top of it.

Other important ritual practices that are shared across the area are the ritual washing of the placenta, followed by its 'reading' to tell the child's future, and burial, together with symbols of the child's work or wealth in the future; and the ritual washing of the mother and of the clothes that were used during the birth

Although customs for the ritual disposition of the placenta vary across regions and even within communities, everywhere they are elaborate and vested with significance for the participants. The idea that in a hospital birth the placenta may just be thrown onto rubbish dumps where dogs will devour it is deeply repugnant to members of Andean traditional cultures, and should be understood by outsiders as equivalent to exposing a corpse.

3.1.6 Care during the post-partum period

3.1.6.1 Nutrition

Immediately after birth the mother is fed with a mutton broth made from the sheep which her husband's family traditionally slaughter for her at this time. During the days and weeks after birth, she will be prepared meat and soups from this, as it is recognised she is in need of good nutrition to give her strength. Another favourite drink after birth is chocolate, generally a luxury in rural areas. Traditionally, the woman is given a particular kind of *chuño* (an Andean dried potato) in her soups. Boiled whole maize is also considered to be good for healing the uterus.

3.1.6.2 Warmth

According to humoral theory, the body, that has been in a 'warm' state during the actual process of birth, goes into a 'cold' state after birth. It is therefore considered extremely important to keep the body warm in the period after birth, especially those parts considered to be 'open' to the entry of cold air. Women are advised to wear gloves and wool socks after birth, and a wool hat on their heads. The room where the mother rests after birth must be kept warm with fires. The ritual washing of the bedclothes used during birth contains injunctions as to how, where and when they are to be washed so that 'cold' shall not get to the mother through them. Fresh blankets are warmed in the midday sun before being wrapped around the mother.

The ritual washing of the mother's body is undertaken only with hot water, heated over the fire, usually with a disinfectant herb such as rosemary or sage. To touch cold water is considered extremely dangerous for the mother. She may be placed over a smoking bowl of aromatic herbs, such as rosemary, in order to disinfect her body.

3.1.6.3 Rest

At the moment in Inka Katurapi, the traditional period of rest after birth is being disputed by a programme promoted through the auxiliary nurse in the Medical Post by CSRA. The nurse is arguing that the traditional week or two weeks in bed inside a warm house leads to the illness of *sobreparto* as the blood stagnates and rots inside the body. He is recommending that women stay in bed only three days, and that after that they begin to walk and move about, even if only inside the house at first. Walking, he says, will start the blood moving again. These recommendations are criticised by the traditional midwives, who, while acknowledging that the woman will of course move around the house, recommend that she should not go outside for one or two weeks, and meanwhile should rest in bed and take medicinal herbs to ‘cleanse’ the blood after birth.

3.1.6.4 Practices in relation to blood flow and haemorrhage

One of the findings of the project fieldwork has been that biomedical, or commonsense ‘western’ concepts of haemorrhage are not easily assimilated to Andean categories, where the notion of a ‘dry birth’ is considered the most difficult birth, namely one in which there is little blood flow. The elderly midwife in Inka Katurapi had never seen a case of maternal death from post-partum haemorrhage, and put her attitude to blood loss in this way:

The blood should just come out. Here it is said to cleanse, and, on the contrary, they give things to take which will clean out (literally ‘sweep out’) the blood. It is alright when a lot of blood comes out. If we were to want to stop it, the blood would turn into a ball, and become like a bundle inside the belly.

(Translated from ILCA, 1995a: 58)

The commonest post-partum herb taken for ‘cleansing the blood’ is known locally as ‘the blood of Holy Mary’ or ‘the blood of Holy Cross’, and is collected by women for this purpose. Three other herbs with Aymara names are mentioned for cleansing the blood, and for the time when a woman takes her first steps after giving birth.

However, despite the denials of haemorrhage as a problem, several herbal remedies are known for stopping blood flow. The most drastic is the stem of a certain type of fig tree, boiled as an infusion, but two other herbs with Aymara names are listed, as well as parsley, in this connection (ibid: 59).

In Qaqachaka, a remedy for excessive blood loss is an infusion of the roots of *siwinqa* (pampas grass). If bleeding continues, a tea made of the deposit that forms on the inside of a clay stove is given. Don Domingo, a healer-midwife from the neighbouring area of Aymaya, recommends taking an infusion of this with burnt red wool and the feather of a condor. This midwife also uses the herb *sulta sulta*. But he stresses the importance of distinguishing between a normal, healthy blood flow, and haemorrhage. Only in the latter case should one give remedies to stop the flow.

3.1.6.5 Practices in relation to *sobrepardo* and other post-partum problems

The illness known as *sobrepardo*, which is sometimes deadly, is generally ascribed to the woman's having ignored the injunctions on staying warm and resting after birth. It is particularly dangerous to go outside and get wet in storms during the rainy season. Preventative measures are therefore advocated. It is also important not to stay in a 'sitting' or squatting position for long periods of time, which may make the blood stagnate and coagulate into a lump.

When *sobrepardo* does strike, *chhijchhipa*, a herb of the *tagetes* (marigold) family is given, taken as an infusion with roasted pig's foot. The midwife in Inka Katurapi reports that women with *sobrepardo* sometimes come to her asking for *manteo*. But she emphasises that one must never touch the belly of a woman with the illness, asking 'Where does it hurt?', since one's hand is 'poison' and will cause her to get worse.

Manteo is also used in a fairly routine way a few weeks after the birth in order to settle the woman's internal organs back into place. If the woman feels that her uterus is seriously 'loose', and in danger of rising and throttling her, she may attend a midwife who will massage the uterus, feeling whether it is in the right position. Two different herbal remedies are known which will fix the womb in its right position once it has been massaged back into place.

In the case of a uterine prolapse, neither *manteo* nor massage should be performed. Instead a proprietary cold cream is smeared onto the protruding part, in order to ease it back into place, and the woman must then rest for a week in bed.

3.2 CARE IN HOME BIRTHS IN PERI-URBAN AREAS OF LA PAZ (CIES)⁷

The areas of El Alto in which CIES was working were ones where the majority of the population speak Aymara, often in conjunction with some Spanish, having migrated from rural or mining regions of the highlands around La Paz. There are therefore many cultural similarities and continuities with the practices observed by ILCA in the Aymara-speaking rural communities. At the same time, more variety in practices is found, given that migrants are arriving from different areas. It is evident that some 'modern' elements are being adopted into birth practices, both from urban lifestyles and from the availability of modern pharmaceutical products.

3.2.1 Choice in the place of birth

Since they were living in an urban centre, women interviewed were aware of the option of hospital birth. For some this was dismissed on grounds of cost, and undoubtedly, economic factors play their part in decisions. But most women interviewed who had given birth at home explained their preference in terms of the familiar atmosphere of home, the liberty to have their husband or other relatives with them, the ability to keep warm at home, and to give birth in the position they wanted. For instance, women were conscious that the position generally used in hospital is not only a difficult one in which to push the baby out, but it also exposes them to the danger of cold entering their bodies.

3.2.2 The combination of traditional and modern practices

A great many of the 'traditional' practices found in the countryside are carried over into the peri-urban areas. Herbal teas are drunk during birth to 'heat' the body and to speed up the process of labour. Massage is performed in pregnancy and birth, using animal fat or the liquid from chewed coca and bringing the hands from the woman's back round to her abdomen. The *manteo* is performed during pregnancy or in the early stages of labour to correctly position the baby. Women giving birth wear gloves, socks, and bind their heads with a cloth, and aromatic plants are burned at night to warm the room. Many different positions were reported: squatting, crouching, on all fours, kneeling, 'sitting' (probably half-lying) or lying on the side with one leg lifted. Midwives or relatives often position themselves behind the woman in order to massage her abdomen during labour. Some women use the *faja*, a woven belt which is tied above the abdomen to prevent the baby going back up again, and similarly in the birth of the placenta. And we find the

⁷ Section 2.2 is based on CIES (1995a). As with the previous section, detailed references to CIES' internal report are made only when direct quotation is involved.

same names of herbs occurring for stopping a haemorrhage, and for ‘cleansing’ the blood after birth.

However, in the urban setting, these practices are combined at times with ‘modern’ elements or substitutes. Instead of the exotic snake fat used in Inka Katurapi, which must be brought or traded from the lowland forest region of Bolivia, in El Alto a spoonful of cooking oil is commonly given to women in labour, to help the baby slip out. Watches may be used to time contractions. When a labour is considered to have gone on too long, or a birth turns out to be a breech, the woman is transferred to a hospital or health centre, in the situation often decried by medical personnel as ‘arriving too late’.

One modern element that is a cause for concern among biomedical personnel is the use of *pujantes*, (literally ‘pushers’) during birth. This term apparently covers both herbal remedies, such as orange flower tea, and pharmaceutical products obtained over the counter from pharmacies. According to one biomedical person interviewed by CIES, the latter are ergometrine, given orally, or Metergin, which is injected by traditional midwives. As the same interviewee remarks, ‘one has to know at what moment to give them’ (CIES, 1995a: 41). Since ergometrine works on the lower segment of the uterus and cervix, which oxytocin does not, it is reserved in biomedical practice for administration following the birth of the baby, in order to facilitate the delivery of the placenta and reduce the risk of haemorrhage (Silverton, 1993: 324-7). If given in the second stage of labour, ergometrine could prevent the baby being born, since it causes the cervix to ‘contract down’ within seven minutes of administration (ibid: 327). The CIES biomedical interviewees do not make a direct claim that ergometrine is being given by midwives in the second stage of labour. This claim is, however, implicit in the context in which the quotations are presented. More research will be needed to ascertain whether and how traditional midwives are, in fact, using ergometrine.⁸

3.2.3 Practices in relation to cord-cutting and the placenta

The evidence presented by the CIES team indicates that both systems of cord-cutting and placental management are being used in the areas of El Alto where they worked. One midwife reported that the cord should never be cut before the placenta has been born, for fear of causing a retained placenta and maternal death. In this case, the baby is left on the ground with its feet towards the mother until the placenta has been born. Other women

⁸ Compare the study of perinatal mortality in Guatemala, which claimed that untrained midwives’ use of oxytocin was an important factor. This study was cited in the Proposal for the present project (Bartlett and de Paz Bocaletti, 1991).

report the practice of cutting the cord once it has stopped pulsating, and, in cases of long delays, tying the cord to the woman's toe with a woollen thread.

Given that migrants into El Alto are coming from many different areas of origin, this finding that the preference there is to leave the cord until after the placenta has been born means that this tradition is not confined to the small area around Inka Katurapi, as ILCA had at one point suspected.

As in the country, the expulsion of the placenta is treated as another birth. Once the baby has been delivered, the midwife or other helpers will give the mother another cup of the herbal tea she drank to help the birth of the baby, and will start to massage her abdomen again. The period until the delivery of the placenta, and even after that, is considered a dangerous one for the woman, who must be kept awake, sometimes for more than one night after the birth. The placenta itself is accorded great importance, and must be ritually washed and buried. These beliefs about the placenta stay very much alive in the peri-urban context, meaning that hospital birth will be either resisted, or qualified as an unsatisfactory experience, if they are not accommodated.

3.2.4 The traditional system in the urban context

The qualitative fieldwork carried out in El Alto showed that traditional midwives are practising in the areas studied. In general, these women are themselves rural migrants, and some of them move back and forth between rural and peri-urban areas. The midwives are offering the same kind of systematic care as has been described in rural areas, starting with regular visits in pregnancy to ensure or correct the baby's position, carrying through to visits in the time after birth. A young woman or first-time mother is more likely to consult a midwife, who has a role in teaching her the proper observances she must follow during pregnancy and after birth, in order to ensure an easy birth and protect herself from the dangers of *sobrepardo* and other ills. However, not having a midwife to call on was also cited by some women as a reason for seeking institutional care in birth.

The CIES study also included interviews with institutional medical personnel on their views of traditional birth care. The general disapproval by biomedical personnel of traditional practices is an important part of the context in which urban midwives are operating. Several of those interviewed expressed strong opposition to the use of herbal teas, to the *manteo*, and to massage. If women are taken to hospital with problems after starting to give birth at home, there is a tendency to blame the problems on the use of traditional practices. Others are more tolerant, especially those whose health centres are

pursuing programmes of coordination with traditional midwives. For them it is important to let the midwife know that she will not be criticised by the institutional medical authorities for attending a birth, 'because she may be the only person to attend the birth in that particular place' (CIES, 1995a: 43). These biomedical views of home birth are considered in more detail in Chapter 5, where comparisons between the two systems of birth care are focussed on specifically. (See section 5.2).

3.3 CARE IN HOME BIRTHS IN A QUECHUA-SPEAKING RURAL AREA (TIFAP)⁹

The study carried out by TIFAP in the rural, Quechua-speaking community of Tumaykurí also showed many continuities with the thinking and practices of the Aymara communities described by ILCA and CIES. In this section of the report, we try to present the findings that reinforce those of the studies already looked at, and to outline areas where more detailed information complements those findings.

3.3.1 Ethnophysiology and theory of the female body

As with ILCA's study, the TIFAP rural study found notions of blood flow to be basic to thinking around the female body and fertility. Women are classified as to whether they are 'all blood' or 'of little blood', with young women generally having more blood than older ones. These categories are overlaid with humoral ones, so that being 'all blood' is associated with a 'warm' body, and being 'of little blood' means that the body is 'cold'. Women who are all blood are said to give birth more frequently and have shorter pregnancies (seven to eight months) than those who are of little blood (nine to ten months). The age associations of these categories are explained by the notion that a woman gradually loses blood over her reproductive lifetime through menstruation and childbirth, and that her body therefore undergoes a gradual deterioration.

The TIFAP study also puts forward a notion of 'culturally appropriate blood flow', and presents evidence that informants have clear ideas of what constitutes too much blood loss, particularly in relation to menstruation. This notion is usually measured in terms of *time* of blood flow, rather than volume of blood lost. A light menstrual period of up to three days and nights is considered desirable. Blood loss lasting beyond that is considered dangerous, and some women have sought help from the Medical Post to detain the flow of blood. In relation to haemorrhage after birth, it also became evident

⁹ Section 2.3 is based on mainly on Cassandra Torrico's qualitative report for TIFAP (1995b). Some points are also taken from her quantitative report (TIFAP, 1995d). As with the previous sections, detailed references to the internal reports are made only when direct quotation is involved.

that the length of time which blood flow lasted was considered more important than the actual quantity of blood lost, in judging whether blood flow was normal or excessive.

Similarly, too *little* blood flow is also deemed culturally inappropriate. For instance, in the context of talk about the use of ground mule's hoof as a contraceptive, it was said that it is dangerous for women not to give birth regularly, as their blood will coagulate into lumps in the womb and their bodies will dry out, eventually causing death. The blood lost at childbirth, as in the Aymara communities, is considered to have an important cleansing effect, 'purging' the body of impurities.

TIFAP also found evidence of notions that seem close to those of 'pollution' held by many cultures about menstrual blood. Women who are menstruating should not enter fields where crops are growing, or the crops will dry up immediately. Nor should they handle potatoes, which will cause the potatoes to rot. Menstrual blood is sometimes referred to by a word meaning 'dirt'. However, the major emphasis of TIFAP's interpretation of ideas of the female body in Tumaykurí is that products of the woman's body are held in awe as powerful substances, rather than that they are simply seen as 'dirty'. It is for this reason that a series of 'taboos', or cultural prohibitions, regulate their handling during and after childbirth.

This interpretation is borne out by reports of *medicinal* uses of the blood shed by a woman in childbirth. It is said to effect a cure in cases where a person is close to death from one of the most feared diseases of the Andes, the loss of body fat said to be caused by white outsiders sucking it and stealing it, often for industrial use. It is also said to cure a disease suffered by lowland cows that are brought to pasture at high altitudes. As the source of life, the blood of childbirth is considered 'strong' or powerful. However, as such, it is attractive also to malignant spirits, who lie in wait outside the house where the woman gives birth, and desire her blood for the strength they can derive from it. The blood of childbirth is therefore both powerful and potentially dangerous, and as such a series of prohibitions surround its handling, which are considered below (3.3.4).

3.3.2 Prohibitions during pregnancy

In Tumaykuri, prohibitions during pregnancy are designed to avoid certain physiological problems. A woman should not undertake heavy work, as that will cause the baby's position to shift from the correct one. Not all weaving, but three particular types are forbidden her. It is considered dangerous to weave the *axsu*, a traditional over-garment, since the act of weaving can cause the placenta to stick to the back. It is also dangerous to weave the belt known as *chumpi*, as this can cause the head of the baby to flatten and have

difficult being born. It is also forbidden to weave the sack used for carrying goods. The TIFAP report points out that all these forms of cloth involve a *horizontal* design, and states that the pattern woven horizontally across the *axsu* is said to be ‘full of death’. The *chumpi* belt is worn horizontally, and sacks are laid horizontally across the backs of pack animals. The weaving of designs that are worn vertically is permitted, however, such as ponchos, and the carrying-cloths known as *llijllas*. The report does not clarify whether the dangers of horizontal designs are linked to the idea that the baby and maternal fluids should be born downwards towards the earth, as was set out by ILCA.

Sexual relations are forbidden during pregnancy, on the grounds that the foetus will be ‘flattened’, resulting in a difficult birth. It is also forbidden for others to scold or get angry with a pregnant woman. This can cause miscarriage or stillbirth, events which are often attributed to the angry words of another. The physiological mechanism through which this is said to happen involves the notion of ‘anger’ running through the blood from the woman’s stomach, evoking the humoral theory of the stomach as the seat of the emotions and bile as a ‘hot’ substance circulating in the blood.

The pregnant woman is also vulnerable to a range of evil spirits belonging to particular mountains or places, and to the longer-term misfortunes that befall people for ritual reasons. Another source of danger are the curses of others. A detailed examination of three cases of problem pregnancies shows that both physiological and ritual types of explanation are used. In one case, massage by an expert, elderly midwife to correct the position of a baby which was turned on its back, removed all pain from a woman who had previously visited several ritual healers in attempts to cure pains in the hips, back, and belly. In another case, a ritual explanation was sought after painful contractions had begun and stopped, and after massage and herbs had been administered. In this case, the woman had suffered terrible pain in the hips and back after being beaten and dragged along the ground by her husband earlier on in pregnancy, after which the baby had stopped moving. The ritual reading of coca-leaves revealed that she had been cursed by someone who willed her to die in childbirth. The woman suspected the curse was from her mother-in-law, with whom she had quarrelled during pregnancy over the issue of minding her younger sons’ animals. A ritual incense-burning was performed. When contractions started again, the woman walked around the house outside, and gave birth rapidly.¹⁰

10 The TIFAP report does not comment on the way in which the husband’s violence in this case becomes elided in the focus of the ritual healing process on the relationship between mother-in-law and daughter-in-law. It is not clear from the TIFAP report whether the woman herself acknowledged the violence, or whether the information came only from a report from one of her adult daughters. (The woman herself was 42). As the case-history is presented, it seems as if the husband’s violence was not directly at issue in the reading of the coca-leaves. It is possible that it was seen as an instance of the difficulties that had arisen

3.3.3 The gaze during birth

The practices of attention around birth are similar to those found elsewhere. But the TIFAP report emphasises the individuality of each birth, and the autonomy of the woman during birth. Some women take herbal teas, while others do not. Some women like to be held by their husbands, while other do not. Frequently, women said they preferred to be alone during the actual birth, voicing their dislike of others being present when they are pushing the baby out. One woman boasted of having thrown her husband out with a slap. Many of the practices of a birth attendant, such as gentle massage of the woman's stomach, and the tightening of the belt above her abdomen as it slackens with the descent of the baby, can actually be performed by the woman herself.

Walking is considered very important during labour, as it will help the descent of the baby. Many women walk outside until the waters break, and then come inside to position themselves for pushing the baby out. The waters are never broken manually. The positions adopted are the vertical ones already encountered: squatting, kneeling, 'on all fours', standing, or sitting astride a seated husband's knees.

The 'gaze'¹¹ of a woman during birth is considered powerful enough to kill, and she should take care not to look at the baby immediately after birth. Hence the presence of another person is important to 'pick up' the baby, a concept that involves the literal lifting from the ground, as well as washing and swaddling of the newborn. In one case when the husband went next door to get his wife's sister to 'pick up' the baby, having put his wife into bed, the baby died while he was gone. The mother claimed she had not looked at the baby, because to do so would have killed it.

Similarly, the mother should not look at the blood she has shed, or at the placenta when it has been born, because to do so will cause her to go blind. The mother is also vulnerable to the gaze of others after birth. In one case of the illness known as *sajt'ay* after birth, the mother fell ill with fever and pains after a chicken had looked at her through the door.

between the woman and her husband's family, over the appropriation of her labour to mind her husband's family's herds. In this case, the ritual may have been designed to air publicly the underlying family tensions, and so contribute to the resolution of the situation of which the violence was seen as part. (See TIFAP, 1995b: 18)

¹¹ We have here used the term 'gaze' from contemporary film theory to translate the Spanish '*mirada*'. This is because the English word, 'look', is ambiguous between the 'gaze' and the 'appearance' of a person. However, the TIFAP report emphasises that the Quechua word used has the meaning of a sharp, intense, look at something. Therefore, in this report, *mirada* has been translated as 'look' where there is no ambiguity of meaning.

Her husband explained that ‘any being, or any person that looks at her in this way’ can cause the entry of *sajt'ay*, from the eye, or look (TIFAP, 1995b: 36).

3.3.4 Mediation of the products of the woman’s body by others

For these reasons, the TIFAP report argues that danger, in cultural understandings, begins after the birth of the baby when the woman’s blood appears. And while women often prefer to give birth to the baby alone, the period *after* birth is the one in which the presence of another is always required. There are practical tasks that need attending to that are hard for the woman to do herself, such as cutting the cord, lifting the baby, helping her into bed, preparing hot food, tying the cord to her left foot, and administering hot herbal teas to help the birth of the placenta. There are also the tasks of the ritual disposing of the placenta, which in Tumaykuri is burned, although the water used to wash it is buried under the earth floor of the house along with the usual goods. During the burning, the husband must look constantly at the placenta in order to ‘protect’ it. In the case of *sajt'say* mentioned above, involving fever, pains, and bleeding after birth, the husband burned the cloths that had been bloodied during the birth, in order to destroy the spirits that were thought to have been attracted by them.

As elsewhere, breastfeeding of the newborn is delayed for one or two days, during which it is given a child’s urine to drink by the woman’s attendants, in order to cleanse the maternal blood from its stomach. The TIFAP report interprets this as the most extreme example of ‘the mediation of the products of the woman’s body by others’ (1995b: 25). If the woman’s look can kill the newborn baby, and if looking at her blood on the baby’s body could cause blindness in her, then these fears necessitate the intervention of a third party in order to receive the baby into the wider structure of the family.

3.3.5 Care during the post-partum period

The TIFAP report sees care during the period after birth as a long series of cultural prohibitions on the woman who has given birth. In the period of greatest danger, immediately after birth, she must not sleep for twenty-four hours, and another adult, usually her husband, must watch over her to keep her awake. Possibly this period of twenty-four hours is related to a ritual saying that the placenta is born twenty-four hours after the birth of the baby, (i.e. at the same time the next day, although in practice women say that the placenta is usually born much sooner).

She must then rest for anything from a few days to a month. The TIFAP report argues that the length of this period is related to the length of time that the woman bleeds after

birth. Again, this ritual estimation of time does not necessarily correlate directly with reports of the actual length of time spent resting or the time during which bleeding continued after birth, such as those obtained during the quantitative phase of the study.

During this period of rest the woman should not go outside the house where she gave birth, she should never touch cold water, nor comb her hair, a cross is drawn on her forehead with soot, her head is bound, and various symbols are placed at the door of the house to keep away the malignant spirits. It is important to keep warm, and wool thread is tied around her ankles and wrists to stop 'cold' getting in and causing her blood to congeal instead of flowing.

3.3.6 Expertise in techniques of massage

A case study of three women, all in their seventies, who practice massage in the community shows a division of labour between different specialisms. One woman specialised in the care of babies and children, using massage to cure cases of fright sickness (*susto*). She began to massage pregnant women because people asked her to, on the basis of her reputation for curing babies. She massages only to help calm the pains of labour, and always leaves before the actual birth. Her massage is to do with calming and relaxing both the mother and the baby in the womb, and she does not know or practice the techniques for 'straightening' a baby in the womb.

The second woman practices massage to correct the position of the foetus, as well as administering herbal medicine. Sometimes she waits for the birth of the baby. The third woman, besides being the best-known midwife in the community, is also a *yachaj*, 'one who knows', that is, a ritual specialist who can read the coca leaves. Her status is equivalent to that of a male shaman in the community, and was shown supernaturally by her having survived being struck by lightning four times. However, in dealing with problems of pregnancy and birth, her system is purely physiological. She relies entirely on her use of manual massage, and is very confident in her ability to correct the position of the foetus and to ensure a birth without problems. She attends women in pregnancy and before birth, and only stays until the baby is born at the request of the family. Nowadays she lives partly in Llalagua, a mining town at several hours' truck ride from Tumaykurí, where she still attends women. She says that sometimes she encounters cases there that she cannot manage, which she refers on to the hospital in the town.

Her actual techniques of massage have to do with aligning the foetus with the spinal column. One woman who had experienced this during pregnancy had her unbearable back pains cured immediately after a short massage. Another reported lengthy massage

over days which caused her pain, but the baby was then born normally. A third, the researcher, underwent a massage for back pain she was experiencing a year after the birth of her first child. The massage involved movements of the hands starting at waist level, and coming round from the back and down towards the centre, from right to left, and from left to right. The midwife was working towards an imaginary centre-line from the bottom of the ribs, through the umbilicus and down to the pubic bone. She used loose wrists and, as is usual with Andean massage, the liquid used to facilitate the hands on the skin was that of the chewed coca from her mouth.

3.4 DEATH FROM *SAJT'AY* (UNIVERSITY OF ST. ANDREW'S/TIFAP)

A talk on the post-partum problem known as *sajt'ay* was presented to the team seminar in Sucre in March 1995 by Balbina Arancibia of the University of St. Andrew's team.

This was documented with transcriptions and translations of extracts from interviews carried out by her and the rural team from University of St. Andrew's/TIFAP. This team was working in Phichichua, a community which forms part of the same indigenous territorial unit (*ayllu*) as does Tumaykuri.

The word *sajt'ay* means literally to crush, or grind to pieces. It is used to refer to the sudden form of death, which, according to one informant, strikes most people in the country. For women giving birth, it is particularly frequent in the hours and days after birth, when 'demons, devils and phantoms enter the blood and kill the owner (of the blood)'. A woman who gives birth alone is particularly at risk, since she needs others to watch over her after birth, and to place objects at the door, such as a comb, a mirror, and a slippery rock. These objects scare the demons away, because they cannot look on them. Another woman speaks of the daughter of a friend in a neighbouring community who died as a young woman just after giving birth, and emphasises the need to 'look after, care, and keep watch' over the woman who has given birth. One must not leave her alone for a moment.

A third woman speaks of the time when she was keeping watch over a mother who had just given birth, and she succumbed to sleep for a minute. There were no men present, and it seems that the grandmother of the house had gone to fetch a neighbour who was a healer. The woman recounts that while she dozed off, the mother was nearly 'crushed to death' (*sajt'ay*), as another stomach pain overcame her. But the women hurriedly prepared more herbal medicines, and the neighbour burned pig's hair, and these remedies brought the mother back her strength. The speaker explains that while she slept, the dead husband of the grandmother appeared in her dream, and it was undoubtedly his soul that had 'crushed' the mother.

Within these accounts there are hints of physiological explanations: the sudden pains in the woman's stomach referred to by the last speaker; a reference from the first informant that is difficult to translate, to blood that is inside the body and is (possibly) 'squeezed' or 'drained'; and in the same context, a reference to women of 'little blood' and 'much blood'. Even if these references suggest a sudden haemorrhage, the overriding explanation is spiritual. If institutional medicine is to address the fears underlying these beliefs and practices, it is essential that hospital practices take seriously the need for company and protection of a woman who has given birth.

3.5 CARE IN HOME BIRTHS IN PERI-URBAN AREAS OF SUCRE (TCD& TIFAP)

3.5.1 Starting from women's experience/s

As outlined in Chapter 2, it was an aim of this study to start from the experiences of women giving birth. However, there were ambiguities in how 'experiences' was interpreted by different teams. Some tended to produce a composite picture of the typical birth experience and of typical birth care, introducing local and individual variation only where relevant. Where traditional midwives were available to be interviewed, a great deal was learned by listening to their very detailed knowledge of the birth process and of the system of birth care. Such specialist knowledge could not generally be matched by individual women's experience of birth, and for those who wished to present the systematic nature of the traditional system of birth care, midwives were clearly key informants.

In peri-urban Sucre, a rather different interpretation of 'experiences' was adopted, which sees each experience as to some extent unique. In analysing life stories of individual women, individual variation is emphasised, rather than elided into a composite, typical picture. 'Experiences' therefore remains plural, and is not reduced to a singular 'experience'.

This approach was adopted consciously by the TCD/TIFAP team in peri-urban Sucre, and leads to a rather different form of presentation in this section of the Report. The starting-point is the presentation of an individual life-story or 'reproductive life history' in Section 3.5.2. This is looked at not only for its generalisability, but rather for what it can tell us about the way individual experience *differs from* the norms presented so far in this chapter. For instance, it is apparent from Doña Emilia's life-history that the issues of *availability* of traditional birth care, and in particular, the readiness of husbands to act as birth attendants, are very important ones for her. She frequently asks rhetorically whether it is 'just her luck' that her husband has been so uncooperative, whether her situation can

be blamed on her illness, or whether that is just the way things are. These issues are not ones that emerge clearly in the testimonies of midwives, whose experience is based on the cases they have attended, or of husbands, whose viewpoint is different.

For these reasons, the following sections enter into a level of detail of individual experience that has been elided up till now. It is also the case that the author of this Part of the Report is here working with data she collected and analysed as part of the Sucre peri-urban team (TCD/TIFAP, 1996). There is therefore a level of personal familiarity and intimacy with the data, beyond that presented in the preceding chapters and sections, which are based mainly on a reading of the internal reports of the teams concerned. It was decided to utilise this familiarity as a strength, rather than attempt to hide it under a guise of neutrality.

3.5.2 Doña Emilia's life story: norms and realities of family care

The women interviewed in the Mothers' Club in peri-urban Sucre were migrants, mainly from the same Quechua-speaking rural area (northern Potosí) as was covered by the rural teams whose base was in Sucre. As such, a characteristic pattern of the older women who recorded their stories was to have experienced their first births in the countryside, followed by home births in the peri-urban area, and then by later births in urban hospitals.

One woman whose life illustrated this pattern, Doña Emilia, gave a very detailed account of home births in the countryside and in Sucre, a recurring theme of which was the fact that she had not received the attention she should have done from her husband and other family members. Her story points up subtly both where there are cultural norms around attention in birth, and, simultaneously, where they are broken. For instance, when she gave birth to her first child, she had returned to her mother's home, on the other side of Sucre from the place where she was then living with her husband and mother-in-law. Her husband, who had accompanied her there, had returned to his own home about a week before the birth. On the day of the birth, her mother and step-father had gone to attend a funeral at a neighbour's house across the valley, and stayed the night there, as is usual. That evening, Doña Emilia was alone with her little sister, aged about six, when the baby was born quite suddenly. She called on her sister, who was sleeping, to help her 'pick up' the baby, but she cut the cord herself. Her sister boiled water over the fire, and prepared a herbal tea for them both. They drank this, and then slept till morning. At dawn, Doña Emilia had to send her little sister to the house across the valley to bring her mother home before the day's drinking got underway. Her mother arrived home very

worried about her daughter and immediately set to work caring for her, cooking lamb broth, and cleaning and burying the placenta.

In describing this incident, Doña Emilia explained to us:

Then as soon as she ((the younger sister)) had left, I felt I was going to faint. In the country, we always have to eat a stewed lamb broth after the birth, but we, we had had nothing, just what we had for dinner, that was all. After that, just a little cup of chamomile tea she gave me, that was all we had all night.

Her expression, ‘we always have to eat...’ makes it clear that there is a cultural norm which should be attended to; but at the same time, the sentence is about the breaking of this norm. For Doña Emilia, this first instance of failure to provide her with the ‘normal’ attention after giving birth, was the first step on a downward path of weakening and deterioration of her body.

The next, and for her the most serious, step in her story of physical decline, was a miscarriage that she underwent about a year after the birth of her first baby. Her description of blood loss during the miscarriage is consistent with the ethnophysiological accounts outlined earlier. She reserved her most colourful language for the ‘lumps’ which she shed at the time of the foetal miscarriage, and for several days afterwards. Using Quechua words in what was a predominantly Spanish account, she described these lumps as falling like great toads, and as congealing and bursting on the ground.¹² But if she demonstrated the cultural horror of blood congealing and ceasing to flow, she also showed a fear of the amount of blood that she lost when she expelled the foetus. Having bled all afternoon, leaning against a rock in a squatting position, she fainted and was unconscious for a while, but was wakened by her relatives calling her at dusk. She got up, and the blood she saw on the ground was ‘like a pond’ (*como poza*).

In talking about this event as the cause of her descent into weakness and loss of weight, which then led to tuberculosis and her current state of chronic asthma, Doña Emilia continually reminded us that all this happened while her first child was still breast-feeding. The sense is of her body being sapped of its life-force in two directions. This is consistent with ILCA’s finding in the rural Aymara communities that breast-milk is seen as ‘white blood’, or another way in which the mother’s life blood flows into the child.

¹² ‘*Se caía como unos sapos asía tamaño lo [bo-] sangraba, PHATIAYKHURPANDO como unas qulas sabía dejarlo, yo ordeñando las vacas sabía estar.*’ (Doña Emilia transcription, page 12) (It was falling like toads this size, it was bleeding, CONGEALING AND BURSTING, like huge lumps I was leaving behind me, while I was milking the cows as usual.)

Although rooted in Andean concepts of physiology, Doña Emilia's account is peculiarly alive cross-culturally in showing the family roles and dynamics which can militate against the fulfilment of a society's norms in relation to the care of a woman after birth. She explained that the harm done to her by the miscarriage was in large part due to the fact that she was too afraid to tell her mother-in-law what was happening, and she hinted at her mother-in-law's lack of understanding towards her. Because of this fear, she was told to start grinding corn as soon as she arrived home after expelling the foetus and still bleeding very heavily. She felt faint and was soon able to ask her husband to take over from her and went to lie down. Only the next morning, in response to his questioning, did she describe her blood loss and show him the little bundle she had wrapped in a handkerchief, brought home with her and hidden in a crack in the wall. The two of them then took on the burden of secrecy towards the mother-in-law, meaning that Doña Emilia had to carry on working as if nothing had happened. That week it was her turn to milk a herd of about twenty cows which her husband's family shared with neighbours.

The birth of Doña Emilia's second baby found her in the house of her mother-in-law, who was just serving out the dinner to the whole family, seated quietly in the kitchen. In such a situation, one might have expected that the norms of birth care would be readily fulfilled. However, Doña Emilia's labour pains typically began a week before the birth, increased in intensity, and subsided before the baby is born. On this occasion, she felt the baby about to be born, and barely had time to leave the kitchen for another room, where the baby was born in the doorway. She had to stoop down and catch it herself so as to prevent it falling to the ground, again breaking the norm that someone else should receive the baby and 'pick it up' for the mother. A dramatic scene followed, as thoughts ran through her head about what to do next, and she contrasted her extra-ordinary situation with the ordinariness of the family eating in the other room. She called her husband in a low voice, and laughed in retrospect at his startled question when he arrived on the scene: 'What's happening?'. Her mother-in-law then came up and took control of the situation, realising that the baby had not cried yet and that the cord was wrapped around its neck. She unwrapped the cord, cut it, and then tied it to Doña Emilia's left toe, since on this occasion, the placenta was not born at once.

A few months later, the first two children died within a week of each other of fright sickness (*susto*), and Doña Emilia was completely alone for her third birth. She described how when she told her husband the baby was coming, instead of staying with her as she wished, he set off on foot, supposedly to fetch his mother. Doña Emilia ran after him around the hill, calling him to stay just this day. It was a misty morning, and she ruefully described how she watched him disappear into the mist, carrying his *charango*, the baby guitar which men generally carry when going visiting. This time she 'picked

up' the baby completely on her own, cutting the cord herself, then getting into bed with the baby and a flask of wine in the silent house.

Between her third and the fourth babies she was treated for a year for tuberculosis, eventually moving to Sucre to escape the treatment, and suffering badly during her pregnancy. Her fourth baby was born in the night, with her husband and another young man sleeping in the room with her. Even so, she ended up giving birth on her own, in the midst of a semi-farcical situation where she was crouching down to give birth by the bed, and her husband was refusing to wake up and look for the matches to light a candle. Once again, she 'picked up' this baby herself. In the darkness, nobody could find the wide, woven belt she had borrowed to put on after the baby had been born in order to stop the placenta rising. But soon order was restored, and the husband cut the cord, put Doña Emilia to bed, and tied the cord to her foot with wool. In this case, the placenta was delayed, and her husband went off to fetch Doña Emilia's own mother, who was living nearby in Sucre. Her mother started to prepare chicken fat as a remedy, but the placenta was born before it was ready.

In all these accounts, Doña Emilia laughed off the fact that she was alone during the actual births, using the repeated joke that her children 'are born on their own' (*mis hijos nacen en solitas*). She described them as 'traitors' (*traicioneros*), and 'careless', or 'shameless' (*descuidadosos, vergonzosos*). What she did not laugh off was the fact that she had not received due care *after* birth, which she sees now as contributing cumulatively to her present state of health, where she feels near to death at thirty-four years of age. Clearly, appropriate after-birth care requires the cooperation of a woman's husband and other family members for the immediate practical tasks, such as tying the belt, cooking special food, and attending to the baby. But it also involves taking over the normal daily tasks of the woman of the house if she is to get the requisite rest in the days and weeks after giving birth. Although a 'good' husband will do this and will be praised for caring for his wife, gender roles are often fairly rigid, and a woman has a better chance of getting rest if she has other female kin to care for her at this time.

Doña Emilia's story is instructive for various reasons. It shows that, as with any social system, the norms of what ought to happen are not always followed in practice. Undoubtedly, for many women, the ideal childbirth is one where their husband supports them physically and emotionally during the birth, and cooks food and prepares remedies for them after it. A trained nurse working for an NGO in Sucre described to us a birth she had seen in the countryside as one of the most *beautiful* events she had ever witnessed. The woman was supported and massaged by her husband in an upright position, and as the birth grew closer, both partners moved slowly downwards closer to the ground.

However, this ideal is not always achieved in practice, just as the Andean ideal of marriage as a unity of partners, enshrined in the Aymara notion of the couple as *chachawarmi*, or 'husbandwife', has been analysed as more meaningful on the symbolic level than on an everyday, practical level (Harris, 1980).

Not every woman wants her husband or partner's support during the stage of pushing the baby out. Many prefer to be alone. There is something of this in Doña Emilia's talk of her 'shame' (see below), particularly as she looks back at herself as a young woman; and it is striking that in both of her subsequent hospital births, she also gave birth alone. However, it is equally clear that she does require attention *after* birth, from the moment when another pair of hands is called for to 'pick up' the baby. She attributes later physical harm to the times when such attention was lacking, and to the times when she did not get the requisite rest after birth or miscarriage. Typically, she blames herself for this lack of rest, ('I don't look after myself, I just keep on doing the cooking'), but it is not difficult to see that with an uncooperative husband, such rest from daily work is scarcely possible for a woman with other small children, unless she is living with other female kin who can take over for her.

Several studies have found that husbands are the most common birth attendants in Andean childbirth (e.g. Reátegui, 1990: 109). In other surveys, an undifferentiated category of 'family members' appears as the major form of attendant (INE, 1994: Table 8.4), but must include a large proportion of husbands. Doña Emilia's narrative problematises this role, showing how it can conflict with other gender roles assumed by men, particularly as families move from the countryside into urban areas. It can be noted that Doña Emilia's husband was completely absent during her first birth, which took place at her mother's home. During the second birth, he was present while his own mother attended Doña Emilia and her baby after the sudden birth during dinner. At the third birth, he still seems to have preferred that his own mother perform these tasks for his wife, although in fact no-one did. By the fourth birth, he did in fact perform the immediate tasks of cutting the cord, and wrapping both mother and baby, before going to look for help from Doña Emilia's mother.

There is therefore a process of apprenticeship observable in the account, whereby the young man learns to attend birth from his mother and mother-in-law, even if Doña Emilia's husband was not enthusiastic about practising. Just as in the case of traditional midwives, as will be argued below, this narrative shows that it is important to rural and migrant women that husbands are recognised and acknowledged as a vital part of the network of birth care in the Andes. This role needs to be taken on board and addressed

by education in the area of childbirth, instead of being ignored or frowned upon. Such a recognition would mean opening spaces for men's participation in certain ways in the present plethora of organisations directed towards childbearing women. It also means changes in institutional attitudes to men's presence during childbirth, a theme that is taken up below. (See sections 6.1.2.2 and 7.4.1).

3.5.3 Shame and confidence

An important concept used by Doña Emilia to explain her reactions to some things that happened to her is that of 'shame' (*vergüenza*). For instance, in explaining why she said nothing to anybody when she felt herself beginning to miscarry, she said:

But I used to be so *ashamed*. Even now I'm the same; when I'm ill with my period I don't go out. I don't go and call on my friends, nor do I really even want anyone to call on me!

This attitude towards menstruation was put forward as an individual, rather than a cultural one; nevertheless, it is in line with some of the cultural attitudes reported from Tumaykurí, (that menstrual blood is 'dirt', for instance), and Doña Emilia was born not very far from there. This attitude led indirectly to her not telling her mother-in-law about her miscarriage at all, with profound consequences for her health.

The other times at which Doña Emilia invoked 'shame' were in describing when she told no one of her first pregnancy until about seven months; and after her first hospital birth, when she gave birth in bed on the ward, and was 'ashamed' to lift the baby or call the nurses.

This 'shame' for a woman in talking about reproductive matters and menstrual blood is not unique to Andean cultures. As a mature woman looking back, Doña Emilia sees its real effects in her life as a young and timid wife and daughter-in-law. It even now regulates what she feels able to say to institutional medical personnel. This is an important factor that needs to be thought through by medical authorities in offering services, particularly to migrant women.

The converse of shame in this context is confidence. Despite what she had to say about menstruation and other matters, Doña Emilia is in many ways quite confident towards childbirth and her body. Her younger sister, who now lives close by to her in Sucre with their mother, is now twenty-three years old and has given birth four or five times, always at home. Doña Gerónima is ten years younger, and healthier than her sister, but in

recounting the advice of her mother to her in giving birth, she was voicing the attitude of her culture towards a woman's responsibility to herself in childbirth:

- G. My mother used to tell me, "This is the way it should be, and there's no —the pains don't last— there's no need to be afraid. Rather, you need to make an effort." That's what she used to tell me. Pushing, like that. "You have to bind yourself well around the waist and you have to massage yourself downwards," she used to tell me. That's how my mother explained to me, and so, having heard this, I did like she said, and I've had (my babies) really quickly, I must say.

Doña Gerónima here demonstrates a cultural confidence in a woman's ability to give birth which is now sadly absent in the greater part of cultures of the North. She also demonstrates how both cultural techniques and confidence are passed down from mother to daughter. Her attitude of self-sufficiency towards birth, particularly towards the birth of the *baby*, was shared by individuals across all the areas studied by this project. It requires much further thought to see how the positive aspects of this attitude can be combined with the benefits of modern medical care which many women desire.

3.5.4 The focus on delivery of the placenta and after

As with the studies in the sites already considered, there is a clear cultural emphasis on care in birth of the placenta and after, running through women's accounts of home birth in peri-urban Sucre. Even Doña Emilia, who gave birth to four babies without aid in a home setting, received the normal cultural care in the two instances where the placenta was delayed. Her reason for now preferring hospital birth is clearly not to do with care in the birth of the *baby*, since both hospital births were also unattended. Instead, she states her preference in terms of the way in which hospital personnel manually express the blood from the uterus after the birth of the placenta, the practice known as *la limpieza*, or 'cleansing', which will be considered in the next chapter (section 4.1.5).

This focus also runs through Gerónima's way of understanding what is meant by 'attention' in birth. When asked an open question on this, she responded entirely in terms of care given *after* the birth: firstly, the care of cooking lamb stew and herbal remedies; and then the care of cutting the cord and attaching it to her toe.

3.5.5 The urban midwife's system of care

The group of women in the Mothers' Club who gave their testimonies to the Sucre peri-urban team in the first phase of the fieldwork identified one woman working in the barrio

as a *partera* or midwife. This woman agreed to record her testimony for the team, even though she was not herself a member of the Club, and was in some difficulties with relation to the staff of the Medical Post who organised the Club. Since the team had been put in contact with her by a woman whom she had attended, they were able to compare her own account with that of the woman who had experienced her care.

This midwife had migrated into Sucre only five years ago from a Quechua-speaking area of northern Potosí Department, not very far from where the Tumaykuri study was carried out. Apart from the one woman who was interviewed, the team did not meet other women who had been attended by her in the barrio, and she herself said that she did not practise very much, in part because of the problem with the Medical Post, which will be considered below. She might attend three or four births in a year, and it seems that her system of clients would still be referred to her through networks of kin and friendship based on the rural locality from whence she came, rather than through any more impersonal, urban method.

Her system of care corresponds in great degree to those already described in the other sites. She prefers to see a woman during pregnancy, at about four months according to the cultural system of counting, which starts from the time when a period fails to appear, giving a total length of pregnancy of about eight months. She then sees the woman twice more, at two-monthly intervals, with the third visit therefore being close to or at the birth. Her techniques include feeling the woman's pulse, 'straightening' the baby in the womb, massage, and *manteo*, which is always followed by the application of a poultice to the woman's back. This latter practice is known in Quechua as *tiliay*, a verb derived from the Spanish *tela*, or 'cloth'. The 'cloth' applied is a thin skin made from drying the stomach of a sheep or goat, on which heated remedies are spread. She talks much of the importance of ensuring the correct position of the baby in the womb through massage, and explains how tying the woven belt above the woman's abdomen during the ante-natal session enables her to see and feel clearly the position of the baby's head, hands and feet. As she explained, 'it stands out like the ridge of a hill'.

During labour the midwife prepares a drink with beaten eggs, and a little heated wine, together with a herb that hastens contractions, such as orange flower. Her other practices during labour follow those she uses in pregnancy, generally involving massage and the application of a hot poultice to the back, and, in difficult cases, a *manteo* performed together with her husband, also a healer. She describes with vivid sounds how the pulse feels shortly before the woman will give birth, a description that tallies well with modern midwifery's descriptions of the strengthening and speeding up of the pulse before birth (Silverton 1993, p.300).

Her practice in relation to the delivery of the placenta follows that used in Tumaykurí and the more modern of ILCA's two sites. The cord is cut as soon as the baby is born, and the end attached to the woman's toe with a woollen thread that must have been spun to the left (anti-clockwise, as opposed the usual clockwise spinning.) She puts the woman to bed and makes her comfortable, keeps her warm and well-wrapped up, gives her a hot herbal drink, and waits. Sometimes she uses a wooden spoon on the woman's tongue to make her retch and bear down.

This midwife's ethnophysiological understanding of birth starts from the same principles of blood flow as have been encountered in the other study sites. Difficult births are 'dry births', and easy ones 'wet births'. However, in this case, these expressions are not elaborated literally in terms of the amount of blood flow during birth, but refer rather to the general blood circulation of the woman, which can be felt and gauged in the pulse. Younger women are full of blood and give birth easily, while older women have less blood flowing and have more difficulty giving birth. Similarly, the pregnancy of a young woman generally lasts only eight months, while that of an older woman may run to ten or eleven months. This is explained in terms of the understanding that the foetus is nurtured and made to grow by the blood circulating through the woman's body.

3.5.6 Use of institutional ante-natal care by women giving birth at home

In the quantitative phase of the study in peri-urban Sucre, it was evident that almost half of the women who gave birth at home had attended some form of institutional ante-natal check-up (10 out of 22 cases). In the prior qualitative phase, the sample was obviously much smaller: only four women out of nine who recounted their reproductive histories had ever given birth at home. Out of these four, two were women in their early twenties, who both appeared to have used institutional medical ante-natal care consciously as part of a strategy of care prior to giving birth at home.

Doña Gerónima, in particular, elaborated at length on such a strategy, when she described how in one of her pregnancies she had been in strong disagreement with the medical diagnosis of the pregnancy as normal. The disagreement arose after she had had a severe fall, and began to experience piercing pains in her belly. She went to the doctor at the Medical Post of a neighbouring *barrio*, (at that time there was none in Yanachaki), who told her everything was normal. She returned several times, and also went to the doctors in the Maternity Hospital in Sucre. All could find nothing wrong, and *told* her there was nothing wrong. Her baby was born swiftly at night on a Sunday, when there was no question for her of being able to reach the hospital from where she lives. At birth, the

baby had a gaping wound around where the umbilical cord was attached to the body. She and her husband took the baby into the hospital at dawn, where she was placed in an incubator and died after a week.

This episode prompted Doña Gerónima to say that she no longer trusted doctors at all. For our purposes here, it shows clearly the way in which women who for a combination of cultural and economic reasons have already decided to give birth at home, will make use of institutional medical services to enhance their knowledge of their pregnancy and advert them of problems in it.

3.5.7 Women's experiences in attending the the births of others

Two of the women in this group recounted attending births of others. One was Doña Celestina, who had herself been attended by the traditional midwife in her births. She was called on to help once when a woman collapsed in labour as she was walking down the street in the city of Cochabamba. She helped to bring her into the house and massaged her while she gave birth. Doña Celestina described the birth as a premature one, brought on by the husband's violence.

The second woman who recounted attending a birth was Doña Bertha, the only member of the Mothers' Club with completed secondary education, and a second generation migrant. She reported that in school they had been given talks on how to attend a birth. She had been very interested, and talked a lot with the educator who taught them. The content of what she learned seems close to what is taught to community health promoters, or on midwife training schemes. Presumably some years later, when she was President of a horticultural project of the same Mothers' Club, she was called on one day to attend a woman who was giving birth and could not afford to go to hospital.

Many of the details of her description evoke the training courses referred to: she describes cleaning a knife to cut the cord, putting drops of lemon into the baby's eyes, and removing phlegm from its mouth. She rotated the umbilical cord manually to make the placenta come away, and when questioned as to where she had learned this technique, again referred to 'talks in school'. She gave the placenta to the husband to check its completeness, and when another piece of the placenta was expelled, scolded him for not having noticed that there was a piece missing.

Other details evoke her own accounts of what she experienced during hospital birth. For instance, she tried to express the blood from the uterus by manual pressure after the placenta had been born. She also tried to persuade the woman to lie on her back to give

birth, although the woman insisted on squatting. And she placed her foot on the woman's abdomen, pressing down when the woman indicated, in order to 'help' her push out the baby. Her words demonstrate her unease around this last procedure:

And the pain comes, and she says to me, she looks at me, and I said to myself, "Oh Christ! What if I kill her baby? I'll kill it then," I said. I pushed her with *all* my might, and Kaq! the baby was born, the little baby came out!

Nevertheless, if we substitute the doctor's hands for Doña Bertha's foot, this intense pressing down parallels the pressure she herself experienced in hospital. This was especially so during the birth of her fifth baby, which presented with a hand first and which she pushed out vaginally, while two doctors pressed down hard on her abdomen. (See section 3.1.3).

The precise details of what external pressure is acceptable vary across cultures, not only within Bolivia, but internationally. What is more worrying here is the interventionist nature of the model that Doña Bertha was following in attending this birth. In particular, the controlled cord traction which she performed most probably caused the piece of the placenta to be left behind which was later expelled. The woman began to develop fever later on, and Doña Bertha's account of the birth ends with her going to look for a nurse that she knows and begging her to come and give the woman an injection so that she expels everything properly. The nurse did this, but the incident shows clearly how intervention begets more intervention, and hence is inappropriate where back-up is not available.

3.6 CARE DURING THE BIRTH OF THE PLACENTA IN THE QUECHUA-SPEAKING AREAS (RURAL AND PERI-URBAN)

In all the Quechua-speaking areas, both rural and urban, there was an overwhelming predominance of the method of early cord-cutting and attachment of the cord to the toe with a woollen thread. This practice was also the standard one in Qaqachaka, the Aymara-speaking rural area studied in the preliminary phase prior to the main fieldwork, and which borders on the North Potosí rural sites studied by the Sucre team in the main phase of the fieldwork.

There are two kinds of exception to this rule. One is in the cases where the placenta is expelled right after the baby is born, before there is time to have cut the cord. The other is a single case that was recorded in the Quantitative Report on practices in Phichichua (University of St. Andrew's/TIFAP, 1995b). Here, one woman reported not cutting the

cord until after the placenta has been delivered, on the grounds that ‘one can die if the placenta is cut before’. (What we call the ‘cord’ is usually described in Quechua as part of the placenta). Although this explanation was encountered only this once in the area, it nevertheless is an important indication that there is a strand of ethnophysiological thinking which is in line with that reported from Aymara-speaking areas of the Altiplano.

3.7 CONCLUSIONS: TRADITIONAL BIRTH CARE AS A SYSTEM

3.7.1 Systematic care

The findings of the project so far indicate that, in certain respects, traditional birth care needs to be valued as a *system* in its own right. In briefly reviewing some aspects of the system, we will point to where there is evidence of continuity between the traditional system of birth care and the modern systems of obstetrics and midwifery. Both proponents and opponents of the obstetric system of birth care have tended to emphasise its radical discontinuity and difference from previous systems. The project’s findings indicate that there is more continuity between modern and traditional systems than is often made out to be the case.

Firstly, the project was not able to equate traditional care with ‘informal’ care, as it was found that the traditional system also had its formal and informal sides, including both specialist and family care. What is more, there was found to be a division of labour among traditional specialists, with some specialising in the treatment of newborn babies and young children, others in the treatment of pregnant and birthing women and diseases of the womb, while still others specialised in difficult births. These divisions are not unlike those found in the institutional medical system, between pediatricians, gynaecologists and obstetricians, all of whom may be found within the institution of the maternity hospital.

Secondly, traditional midwives’ practice is systematic in that it is based on a theory of the woman’s body and of human reproduction. This theory makes blood flow central to fertility, the growth of the foetus, and to birth. Birth itself is seen as a dual event, with the birth of the placenta as a second birth, after that of the baby. Ethnophysiological theory has close links to wider theories of astronomy, climate and the earth’s cycle of fertility. To divide this theory into its physiological and religious dimensions is a somewhat artificial distinction within the culture’s own terms. Nevertheless, there is some division of labour on the ground between practical and ritual specialists in attending birth. We can trace continuities between modern biomedical thinking and the more

physiological aspects of traditional theory.¹³ For instance, traditional theory of ‘wet’ and ‘dry’ birth carries over into biomedical thinking on anaemia, particularly in older women. Midwives’ observations on the behaviour of the pulse during birth seem to be similar across the cultures. Thinking on haemorrhage remained a problematic area for the project, but the notion of an ‘appropriate’ quantity of blood flow, usually measured by the *time* during which blood is expelled, is a promising line to have emerged from one area of the fieldwork.. The thinking on blood flow after birth as ‘cleansing’ of the woman’s insides is carried over into Bolivian hospitals, where the biomedical practice of expressing blood from the uterus after the birth of the placenta is known as ‘the cleansing’, and rationalised on similar grounds.

Thirdly, traditional midwives have a clear structure of timing to visits during pregnancy. Some midwives talk of preferring to see a woman at about the fifth month of pregnancy, (the fourth month in traditional counting), and then to see her at regular intervals after that. Others talked of seeing the woman about a month before birth. Midwives like to get to know the woman, and instruct her in the cultural norms of caring for herself during pregnancy. They also assess her according to various traditional categories of type of womb, and of birth, as well as according to her age and parity. Midwives clearly use massage during pregnancy to assess and correct the positioning of the baby, and to get to know the woman’s body and how the baby is lying in it. They claim that these practices are essential to ensuring an easy birth, and dislike being put in the position when they are called on to attend a problematic labour without having seen the woman in pregnancy. Modern midwifery can clearly trace a long line of descent from traditional midwifery in its advocacy of the ‘continuity of care’ as an essential basis for the psychological well-being of the birthing woman. While ante-natal care in the biomedical system has become much more elaborate in recent years, its predictive value at birth seems proven only in areas which build on knowledges inherent in the traditional system: anaemia, multiple births, malpresentations, and high parity (see Tew, 1995: 86ff.).

Fourthly, traditional birth care is systematic in its approach to birth itself, while acknowledging the individuality of each birth. The creation of a calm, supportive, and patient atmosphere around the woman giving birth is seen as paramount. Practices such as massage and the *manteo* are applied systematically in relation to the position of the baby and its passage down the birth canal. An elaborate system of classifying and using

¹³ We leave out of account here the argument that much, or all, of hospital obstetric care is explicable as ritual, designed to facilitate the status transition of a woman into motherhood (Davis-Floyd, 1992). This argument could be developed in a different context to argue that modern obstetrics owes as much to the ‘magical’, symbolic and religious aspects of traditional thinking on birth as it does to the physiological aspects.

herbal medicines exists in all the areas studied by the project, with some local elements, and some elements in common across the areas. A detailed study of ethno-pharmacy is beyond the scope of this report.¹⁴ However, it is clear that herbs are divided systematically, both along the humoral lines of 'hot' and 'cold', and also according to whether they intensify uterine contractions, or whether they calm and relax the woman. Their application is not haphazard, but follows systematic procedures. Recognition of herbs and knowledge of their application is very widespread, but is also the provenance of sophisticated specialists in herbal medicine.

Finally, traditional care is systematic in its approach to the birth of the placenta and the care of the mother after birth. The two distinct approaches to care during the birth of the placenta are both justified in traditional thinking by the need to prevent the placenta from rising up in the woman's body instead of being born. The birth of the placenta is seen as potentially the most dangerous period of birth, when the woman's blood can attract evil spirits which cause her or the baby's death. Midwives eventually sacrifice their sight by looking on this powerful substance. After birth, a series of practices are observed around the disposal of the placenta. The woman herself is protected from the dangers of infection after birth by a series of prohibitions on what she can do. These are clearly intended not to immobilise her, but to allow her to retire from the stresses of her normal work role, which involves walking long distances and braving the mountain elements.

In summary, if dialogue between the different medical systems in operation in Bolivia is to be seriously pursued, the project suggests building on the substantial *similarities* that already exist. This approach could be contrasted with the present emphasis placed on the *differences* between the two systems, through highlighting the levels of technology employed, or through constructing stereotypes based on notions of 'clean' and 'dirty' birth.

3.7.2 Comparison with the 'physiological model'

If continuities between biomedical and traditional models of childbirth are to be sought, in contrast to the present exaggeration of differences on both sides (and see section 5.1 for the traditional midwives' view of these differences), then it is essential that the 'physiological model' of childbirth, as developed by professional midwives in the North, is brought into the picture. This report will argue that this model of birth is the only relevant one for comparison with practices of birth care *where birth is taking place in a*

¹⁴ The individual project reports contain much information about herbal medicine, and particularly so those of ILCA (1994, 1995a and 1995b). However, it should be a topic of further research to collate and supplement the work on herbal medicine in relation to childbirth that has been accomplished by this project.

non-technological setting. If such a comparison is undertaken, our data reveal much in common between traditional practices and the practices advocated on the basis of the ‘physiological model’.

Firstly, the physiological model takes account of the interaction of mind and body in the process and progress of labour. It therefore advocates practices such as continuity of care, and building confidence and trust between the woman and her midwife. In the Bolivian context of traditional care, such trust is established through the interaction between a young woman and the older midwife, who is a respected member of the community expected to instruct the young woman in established practices and ways of caring for herself. The traditional system is also clear about the need for absolute quiet and calm around a woman giving birth. She is the main participant in the process and her wishes are respected.

Secondly, in advocating upright birth positions, the physiological model is clearly building on crucial aspects of traditional birth systems, which are well exemplified in Bolivia. Upright birth positions are overwhelmingly adopted by rural and migrant women in home births; and walking is considered very important during labour to facilitate the descent of the baby. In Bolivia, these practices can be seen as part of the cosmivision wherein the birth of the baby is understood by analogy with the rains falling on the earth, and are also justified by the practical reasoning which deplores the difficulty of pushing a baby out in the supine position used in hospitals. Both these forms of argument can be traced through to the arguments advanced by proponents of the physiological model, around making use of the gravitational pull of the earth during labour, and around the facilitation of flexibility in the pelvic structure and making the best use of uterine muscle power in pushing the baby out.

In other aspects there is a less clear-cut line of continuity. The most important of these in terms of reducing maternal mortality must be the practices around the delivery of the placenta. The physiological model advocates staying in an upright position, leaving the cord until after the placenta has delivered, and immediate breast-feeding to release natural oxytocin. What is more, it presents reasoning that these factors will act together, in a holistic way, to facilitate early separation and delivery of the placenta.¹⁵

¹⁵ One published test of a small part of this model in a developing country did not show significant levels of reduction in haemorrhage (Bullough, et al., 1989). The study was flawed from the point of view of the physiological model, however, since it merely concentrated on the effect of early breast-feeding, leaving the woman apparently in a supine position for both birth and the delivery of the placenta and cutting the cord directly after birth. It therefore failed to replicate the two features of a non-interventionist practice found to be important in the comparative study undertaken by this project.

Our own study shows that there are traditional precedents for staying in an upright position and not cutting the cord, and that these practices appear to have a pre-hispanic origin in Latin America. Our comparison of these practices with the system of cutting the cord and putting the mother to bed, presents a *prima facie* case that both the upright position and not cutting the cord are factors which reduce the time taken for the placenta to be born, and will therefore lower the risk of retained placenta and haemorrhage. However, present practice in many rural and peri-urban contexts has adopted the obstetric practice of early cord-cutting and putting the mother to bed. In turn, these practices have been assimilated into the mythical and practical thinking that surrounds the birth of the placenta. It is worth noting that the survival of the older practices and memories in three out of the six project field sites, indicates that there is room for manoeuvre within traditional theories, if it were decided to implement an educational programme on this practice.

The project found ample evidence that delaying breast-feeding has an important basis in theories about economic well-being in rural communities, in symbolically teaching the infant the social virtue of restraint in conditions of economic scarcity. Immediate breast-feeding clearly clashes with these values. Nevertheless, the team noted that the MotherCare project has reported great success in changing practice in this respect, when women were told that immediate breast-feeding would reduce their risk of haemorrhage (MotherCare, 1993b).

On the issue of the natural occurrence of perineal tears, which has been used as one justification for episiotomy in hospital practice (Begley, 1987), the project data broadly supports midwifery's contentions that tears can be avoided by good physiological management. Some teams felt that they had not obtained reliable data on tears, often because of the interviewers' inhibition in relation to the topic. Nevertheless, the ILCA team express confidence in their data collected in Inka Katurapi during the quantitative phase of research, and found that the level of tears occurring in birth there is very low. Since women in Inka Katurapi favour the 'all fours' position for giving birth, this would of course be further justification for modern midwifery's advocacy of this position as one of the best physiologically for the avoidance of tears.

3.7.3 The influence of institutional medical practices in the 'traditional' sphere

It must be emphasised again here that the term 'traditional' has been used in part by default throughout this report in view of the difficulties with the term 'informal' to apply to a sector that has within it both 'formal' and 'informal' care. The 'traditional' sphere shows every sign of being a living system, highly capable of taking on innovations from

outside, in the kind of syncretism that has been analysed elsewhere in Andean religion and ritual.

Such innovations include:

- The pressure towards using the supine dorsal position for birth, which in some areas is being described as the ‘civilised’ position;
- The use of synthetic ergometrine, available over the counter in chemists, in second stage of labour, as something that will help the woman ‘push’;
- The widespread adoption of early cord-cutting, which appears to be in conflict with an older system of leaving the cord until after the placenta has been expelled.

The fieldwork has identified the current and potential influence of institutional medical practices on traditional practices as an area with many risks for maternal outcomes. What is deemed best in an institutional setting, where provisions are in place for what has been termed the ‘cascade of intervention’ (Inch, 1989), is not necessarily the best in what we can call the ‘non-technological’ setting. In the rural and peri-urban settings in which this project has studied home birth, modern technology is not only not present; women also express a strong preference for *avoiding* it, particularly in its ‘ultimate’ form of the Caesarean section, which is often equated with death. It is therefore imperative that childbirth education offered to traditional midwives and to pregnant women follows the model of what is best physiologically for the woman and also for the child, a model that is currently being built on and evaluated through the practices and research of modern midwives, particularly in Europe.

3.8 SUMMARY DESCRIPTION OF THE TRADITIONAL SYSTEM OF BIRTH CARE

Traditional practices of birth care in Bolivia are part of a system which is grounded in a cosmivision of the relation between the heavens and the earth. Fertility in this theory is related to the seasonal appearances of certain constellations in the sky which herald the rains, and which are understood as a black llama giving birth and expelling her waters to the earth. Human fertility is related to the flow of blood in the female body, and conception is thought to occur during menstruation. Blood nourishes the foetus during pregnancy, and young women are thought generally to have shorter pregnancies and easier births because they are full of blood, while older women have longer pregnancies and ‘dry births’, as their blood declines in volume. The growth of the foetus is also understood by analogy with the female activities of spinning and weaving, and a series of loose prohibitions regulates women’s work in these areas during pregnancy

Birth practices need to be understood within this overall context, in which the woman's body is seen as like the earth, needing warmth and clothing in order to sustain its regenerative capacities. This explains the fundamental principals of upright birth positions and of providing the mother with sufficient warmth during labour and birth. The products of the woman's body—blood, water, the baby, and the placenta—are all seen as powerful forces which must be born towards the earth, and where relevant, returned there. While some of these products are used medicinally, all are also seen as dangerous. In some areas a woman may not look on any of these products, including the baby, necessitating the mediation of a third person to attend her. The period immediately after birth is seen as extremely dangerous for the mother, when death can fall very suddenly, and an elaborate body of metaphors surround the birth of the placenta, which in one area is likened to the emergence of the first Inca and precious metals from inside the earth. Birth is everywhere seen as a dual process, involving first the birth of the baby, and then the birth of the placenta. The post-partum period is one of many observances, both ritual and practical, to avoid the sometimes fatal problem of *sobrepardo*, literally 'after birth'. The new mother is expected to rest, keep warm, and refrain from her normal work duties. Great care is taken in the ritual disposal of the placenta, which is given a burial like a child. Failure to observe these rites is to invoke the potent revenge of the placenta on the mother or new baby.

Two different methods of care during the birth of the placenta are currently used. One, found in rural areas of the Highland region, and among migrants to El Alto from these regions, involves leaving the mother in the 'all fours' position and not cutting the cord until after the placenta has been born. The other, found in all the other regions studied, involves the mother lying down, with the cord being tied and cut soon after the birth of the baby. In the latter method, the cord is generally attached to the mother's toe with a woollen thread, on which she sometimes tugs gently. The second method seems clearly to derive from biomedical practices of placental delivery, while the first corresponds closely to practices recommended by modern professional midwives. Traditional midwives who practise the first method deplore the second method, arguing that it leads to haemorrhage and to the placenta not being born. In a small sample available from the quantitative study, the first method was found to lead to *prima facie* better outcomes in terms of a shorter time of placental delivery, so justifying the claims of both traditional and modern midwives. This points to the need for further research on a larger scale.

In peri-urban areas, traditional birth practices are maintained in home births and by migrant midwives. However, the greater proximity of biomedical care means that many women are combining elements of the two systems. Such combination ranges from the use of biomedical ante-natal care by pregnant women who give birth at home, to the use

of pharmacological products by traditional midwives, which was denounced by one doctor. In one of the peri-urban studies, a close focus on women's life histories showed that the realities of family care do not always live up to the ideals presented in holistic accounts of birth practices. In particular, husbands may not always fulfil the companionate role ascribed to them by traditional norms. While many women prefer to give birth to the baby on their own, and an ideal of strength and self-sufficiency in birth is passed from mother to daughter, most women require attention in the period immediately after the birth of the baby. And as in rural areas, a greater emphasis tends to be placed on care during the birth of the placenta and after, than during the birth of the baby.

Finally a comparison of the traditional system of birth care with the 'physiological model' of modern professional midwives shows that in many respects there is continuity and correspondence between the two systems. The exceptions are where interventionist obstetric practices have been adopted in the traditional sphere, as with the cord-cutting practice mentioned above. There is also evidence that other obstetric practices, such as that of lying down for birth, are being taught through secondary schools and are reaching rural women as well as peri-urban migrants. While the safety of such practices under hospital conditions is still being debated, there is no doubt that their application outside of modern hospital conditions is dangerous. Tendencies to imitation of hospital practices in home births should therefore be discouraged, rather than actively taught. Where changes are planned to traditional practices, these should derive from the midwives' model of physiological birth, which is the most appropriate for home births out of reach of the technological back-up necessary to remedy the possible adverse effects of primary interventions.