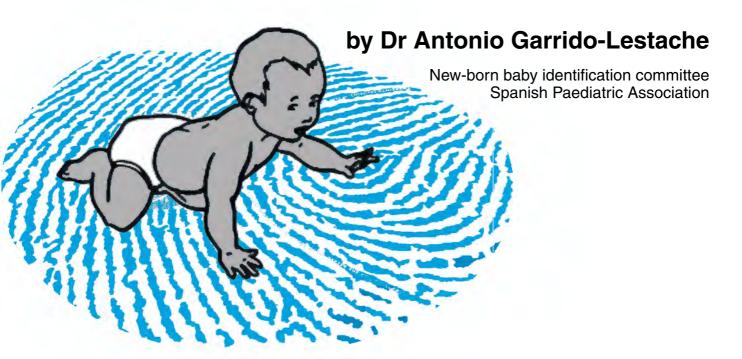
# Identification of New-Born Babies by Fingerprints



Following a decree of 10th November 1999, Spain now has an official document for the fingerprints of new-born babies and their mothers. Developed within the ethos of the United Nations Convention on the Rights of the Child, this measure is designed to facilitate identification in cases where children are exchanged or kidnapped.

HE AIM of this article is to show the lack of protection available to a baby at birth, while it is still attached to its mother, to enable it to live with its true family and prevent any crime affecting its life or destiny, and also to ensure that the baby the family takes home is in fact its own.

For a human being who is too young to be aware of its own family, and therefore has no memory of it, there must also be the guarantee that the family with which it lives is its own and that it has not been given to another, either knowingly or unknowingly, as a result of some omission or lack of means of identification at birth, that it has not been kidnapped, and that it has a past.

Society as a whole must therefore be involved in this project: the Ministry of Justice to amend the law and identity rules; the Ministry of the Interior to make the national identity document compulsory from birth, not merely from the age of 14, as is currently the case in Spain. The Ministry of Education would include training for hospital staff on identifying new-born babies in courses on paediatrics, forensic medicine, obstetrics, gynaecology and midwifery to ensure that the method used was infallible.

Maternity units would create actual full-time posts for "identification officers", who would be responsible in particular for issuing the child's hospital discharge document. The Code of Criminal Procedure would also provide for the possibility of appointing a person to identify and protect new-born babies.

Finally, forensic science departments would have to be provided with much of this information, and would have to increase the staffing levels in their intelligence, documentation and fingerprint departments in order to protect and defend new-born babies.

Children's judges and certain NGOs, such as UNICEF, would have a major part to play in defending these babies.

However, the mere fact of passing a law does not mean that an identification could necessarily be used as evidence because, if there is no effective means of identification providing proof of identity and filiation at birth, the law could be circumvented.

Doctors must therefore provide unique, non-reproducible biological data identifying the new-born baby, thereby establishing an undeniable link between the birth certificate, register of births and other documents used for identification throughout the child's life. In other words, associating the print of its morphological and anthropological personality with its legal identity.

We know already that fingerprints taken from new-born babies can be used perfectly well, since this has been categorically confirmed by Spanish forensic scientists.

In future, they could appear on the register of births. These new citizens could then be issued with identity cards, which would be recorded in the national archives.

### A child's right to its identity

The aim of such identification is to secure each person's true identity. This is a legal matter, which first arises in the delivery room, to ensure that each child may live its life and retain its true identity throughout its life.

Legal documents relating to individuals, such as those concerning birth, marriage, studies, voting rights, military service, guardianship, inheritance, contracts, etc., would be considered genuine, and cases of

impersonation or using someone else's identity could then be detected easily.

For an example of this we have to look no further than the hundred-odd people who claimed to be Louis XVII, son of Louis XVI, and heir to the throne during the restoration of the French monarchy; or Anna Anderson who, for forty years, claimed to be the Grand Duchess Alexandra, daughter of the Tsar of Russia.

Society must quite obviously defend itself against impostors, or against people seeking new identities to avoid legal proceedings. On the one hand, good citizens have the right to retain their identities and, on the other hand, criminals seek only to trade theirs in for another to cleanse themselves of their offences. Society must therefore be in a position to defend itself.

From the legal point of view, humanity took a first decisive step in this direction with the adoption of the Convention on the Rights of the Child in November 1989. For the first time, this text, which took up the principles of, and harmonized, existing legislation, considered new-born babies as people with rights.

So far, the subject of identifying newborn babies has not really been tackled by the legislation. Existing laws only refer to filiation. The lack of any unique, non-reproducible biological data pertaining to the baby, apart from sex, means that such documents as do exist could apply to anyone else of the same sex and about the same age.

I feel this problem concerns us all, but that it has been left to one side because of the lack of any practical method of identifying new-born babies. In February 1989, therefore, I approached the United Nations via Mr Adam Polacka, First President of the Supreme Court in Warsaw and head of the Working Party which produced the Convention on the Rights of the Child.

Those drafting the Convention were aware of how vulnerable children were — how easily their identities could be changed and of all the possible consequences — and also of the solution offered by fingerprints. They therefore included in Article 8 a provision which stipulates that States undertake to observe a child's right to preserve its identity, including its nationality, name and relations, as recognized by the law, without illegal interference. The Article also stipulates that if a child is illegally deprived of any or all of the elements constituting its identity, the States Party must provide suitable assistance and protection so as to re-establish the child's identity as quickly as possible.

The aim is clearly to preserve the child's identity. The Article assumes that the child possesses its identity at birth, or that it will be identified at that moment, and places the State under an obligation to protect the child's identity thereafter. In other words, the State must take reliable steps to identify the child, or to re-establish its identity if the child is deprived of any or all of the elements constituting its identity, name, nationality or family ties.

A child's legal rights are recognized immediately, and for the first time, as those of the human being that it is.

As far as we are concerned, we have always stated that identification of a new-born baby is the first human right. This is partly because the right to life already applies since the baby is alive (it would be absurd to give it what it already has), and partly because the right to have its identity established is the prerequisite for all other civil, economic, political, social and cultural rights. A person's identity is therefore a legal right which has to be protected.

#### Legislation around the world

The Spanish Constitution does not specifically provide for the right to identity or identification. I personally think that no laws have been passed on the subject because there is no known technical method of identification at birth. However, Article 33 of the 1976 Portuguese Constitution acknowledges every individual's right to his or her personal identity, name and reputation, and to privacy in his or her personal and family life.

The law on the identification of newborn babies prepared by Vucetich was in force for some time in Argentina in about 1918.

Article 6 of the Declaration of Human Rights and Fundamental Freedoms adopted by the European Parliament in 1989 stipulates that every person has the right to respect and to the protection of his identity.

The right to identity is a fundamental right, even though the Spanish Constitution does not explicitly consider it to be so. It is contained in other fundamental rights recognized by the 1978 Constitution, such as the right to honour, privacy and one's own image, and other fundamental values such as personal dignity and the free development of one's own personality. This latter right is so important that it is inalienable and cannot be limited in time.

Returning to Argentina for a moment, it is undeniable that this country has been a major contributor to promoting the cause of identification, thanks first to Vucetich who, in co-operation with the Spaniard Oloriz, made an international impact by developing fingerprinting, an identification procedure which has never been bettered, and secondly to those who carried on their work and to the politicians involved in passing laws, including those on the identification of newborn babies. In fact, there are several aspects to the method of identification and, as far back as 1914, Pozzo suggested that babies be identified by police fingerprint departments. This was a fundamental step — in 1915, in his draft law on compulsory identification, Vucetich introduced the identification of new-born babies by fingerprinting. In 1995, Corzo developed photography of the newborn baby's ten fingers with a view to identification, in his grapho-papillary method. Marta Pérez Ferro, an obstetrician and Head of the identification department at the Santa Rosa Maternity Unit, which was opened 52 years ago in 1947 in the Vicente López district, confirms that identifying new-born babies helps to prevent abductions and to ensure exhaustive control of births.

In Venezuela, the law firmly supports the rights of the child contained in the above-mentioned Convention. In a judgment passed on 12th August 1998, the Supreme Court stated that a child's right to be included in the civil register at birth was inherent in the fundamental right to identification. The rules covering the registration of births state that, immediately after birth, the doctor who delivered the baby must affix the mother's fingerprints alongside the baby's finger and footprints. The recommended Spanish formula does away with the traditional footprint. It is now felt that the baby's growth makes any comparison with the original print impossible. Technicians feel that the only immutable features in the case of a baby are the prints of the fore and middle fingers, and these are being used to try to prevent children being stolen, as has happened in the past. The law provides for penalties if a child is not identified. The director of the establishment can be dismissed, without prejudice to any criminal or civil proceedings which might be brought against him.

States are therefore gradually applying the Convention on the Rights of the Child, including the right to identity and to be identified and registered at birth. Again, I would stress this must be done using a reliable method, such as including the baby's fingerprints. Such a measure is easy to implement and to teach, as Vucetich and Oloriz had planned, since it is not difficult to learn the technique for taking the prints. It is an effective, inexpensive, 100% reliable procedure which has been validated by the Spanish forensic science department.

### Threats to a child's rights

The United Nations refers to a child's civil rights for the first time in its recent report on the Progress of Nations, signed by its Secretary General, Kofi Annan, and submitted on 8th June 1998 in London by Carol Bellamy, Director General of UNICEF, and in Madrid by myself.

The child's first right is to be identified and registered at birth so as to preserve its civil rights. The report urged the nations to apply the often

referred-to Convention and recalled that, every year, some 40 million births went undeclared.

Countries which exercise no control are unable to develop plans to protect such children, or even to request aid from other countries or organizations on behalf of these defenceless human beings. The registration and indisputable identification of a new-born baby is the first sign of legal recognition of the new arrival in so-called normal circumstances. But what about the fate of the children in the event of natural disasters or wars?

Unfortunately, according to Grocio, when armed conflict breaks out, 15 or 20 different places around the world are often affected at the same time. Respect for the law — be it divine or human — ceases and it is the children who are always the biggest losers. A number of conferences have been held in the hope of bringing an end to this situation. In 1950 the European Convention for the Protection of Human Rights and Fundamental Freedoms was adopted. In particular it stated that such rights must always be protected, including "in times of war or other public emergency threatening the life of the nation."

During the First World War, civilian victims accounted for only 5% of total deaths. In present-day conflicts, 90% of deaths are civilian, 50% of them children. Even if they have been registered, children who have not been identified and suddenly become orphans lose their past because noone knows where they were born or who their parents were, and they become stateless. But ever since they were born, wherever they have been, they have carried their fingerprints with them.

During the first stage of the Balkan War alone, 250,000 civilian victims left 30,000 orphans stripped of their identities, and history has recently repeated itself in Kosovo.

In September 1993, at the suggestion of the Spanish delegation, the 90th Inter-Parliamentary Conference held in Canberra unanimously decided to immediately request all countries to identify children at birth to protect their right to their own identity and to reduce the risk of them losing their

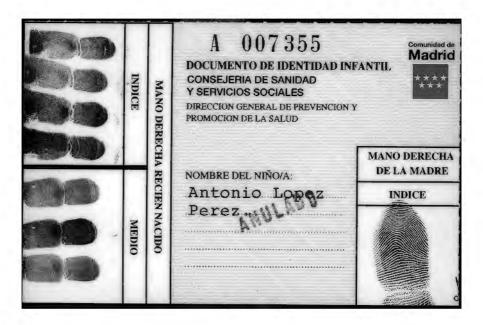
The children's identity card, in use since the recent decree by the Spanish Ministry of Justice. On the left, the prints of the right middle and index fingers of the new-born baby. On the right, the mother's right index print.

identity in the event of natural disaster or armed conflict.

The UNICEF Field Office in Spain and its Chairman Joaquín Ruiz Jiménez, have always given me their full support. In about 1989, the principle of identifying new-born babies by their fingerprints was clearly stated at the University of El Escorial. UNICEF estimated that, at that time, over a million children were unwittingly living with a family other than their own. During my stay in Caracas in December 1998, the UNICEF Field Office in Venezuela restated children's right to their own identity from birth. Its information campaign referred to the rules on entering children on the birth register and their right to be able to prove who they are. The campaign was carried out in close co-operation with the National Institute for Minors and the Ministry of the Family. Campaigns for registering children have been successful, particularly among children, who have shown themselves to be very aware of the subject.

As an indication of the harm that can be done to children in this way, we should not forget that the European Union has made the registration of dogs and cats compulsory. Appeals are constantly being launched to save the whale. Tree registration is so important that, in Madrid, each tree has its own individual document. Children, however, are given so little consideration that this comparison is outrageous. I feel our activities are now better targeted than in the past.

We are determined to encourage children to approach associations for the defence of animals and plants to demand the same rights as have been granted to animals for their protection on the grounds that they — the children — belong to the animal kingdom as well. This is what Mary Willing did in New York.



Having referred to the human basis for identifying and protecting newborn babies, in terms of natural and legal rights, it should be pointed out that this has been a cause for concern since time immemorial.

### A concern throughout history

Filiation between mother and child has always been guaranteed from the legal view point. But this right was the prerogative of royal lineage, because monarchies had to be sure that the future king was in fact the son of the queen. So when Hapseput, the only female pharaoh of Egypt, was about to give birth, her husband King Tutmes II called on the princes of Thebes and other court dignitaries to certify, in conformity with the law, that the queen was about to give birth. That happened 3,500 years ago.

Again, to comply with the law, the birth of Alfonso XIII of Spain, who was born king, had to take place in the presence of witnesses.

As all births were at the parents' home, identification was only visual and, according to the Madrid registrar, the legal documents introduced down the centuries could apply to any baby of about the same age, the only indisputable aspect being the sex — as long as that was specified.

In any case, methods of identification, even of adults, were rough, impractical, and not at all ethical. In the 18th century BC, the 282nd law of the Code of Hammurabi provided for cutting off the ears of offenders, a custom which was to reappear in Havana in the 16th and 17th centuries, and then in France in the 18th century, before the fleur-de-lys symbol was adopted. Tattoos have been tried, as with sailors' tattoos, but they have been unsuccessful mainly because of strong opposition and because they can be removed. Tattoos have been used on children who have been lost or abandoned by their parents.

The discovery of photography seemed at first to be a significant step forward but its use for recording and classifying people soon raised problems, since a person's appearance changes throughout his life. The method is totally unusable in the case of children.

I shall not go into the anthropometric system or other methods such as the dental method, ophthalmoscopy, etc., since none of them can be applied to children. The question therefore remains: how to identify children, and in particular new-born babies? Only now do we have a real solution in sight. However, we should mention the study of pores, Locard's poroscope, and of palm prints, which are a useful addition to fingerprints.

#### **Fingerprinting**

Let us now look at the flesh of our fingers and the fingerprinting method, which was scientifically developed during this century by Vucetich and Oloriz. It has never been supplanted, despite the progress made in computers. Fingerprinting remains the most economic and reliable method of obtaining rapid, safe, clear identifications. It is simple, inexpensive, and within reach of anyone who has been given some basic training. Fingerprinting is the universal identification system, and Spanish paediatricians have now developed a simple, inexpensive technique for including new-born babies in this identification system. This is what Vucetich and Oloriz had wanted and worked for, and we can only admire their clearsightedness.

Our present-day knowledge comes both from our own work, and from the knowledge inherited from past civilizations dating back, as far as fingerprints are concerned, to prehistoric times: the Quaternary period cave at Altamira in Cantabria, or the Neolithic period cave in Gargas, in Aurignac.

There, hand prints were taken in clay, which was later dried in the sun or baked; they can be found on tiles and plaster mouldings in Rome, on Assyrian bricks from the Sargon dynasty, or unbaked Mexican bricks.

Later on, fingerprints were widely used on all types of civil documents, concerning divorce, buying and selling of wives and daughters, in the Far East (China, Korea, Macao, Cambodia, Japan), and in Bengal, Egypt, the Balkans and Syria. The term "fingerprint" exists in Sanskrit.

The Alice Reine hospital in France has a seal bearing the fingerprint of Louis XIV to commemorate the King's visit.

In the Middle Ages, Chinese artists signed their works with their fingerprints, as the genius Durero later did.

Of course, as with any brilliant idea, and despite being used for ages, when identification by fingerprints began to spread throughout civilian society, it had its detractors at first.

But the practice has become so well entrenched that, so far, it has not been supplanted by electronic means, by computers or by genetics. Printing the previously-inked ridges on the flesh of the fingers provides patterns which are unique to each person.

In other words, fingerprints are formed by the dermatoglyphics of the distal phalanges of the fingers. Cummins introduced this term in 1926, and it was subsequently accepted. It is composed of derma (skin) and gluphe (carving). The medial and distal phalanges of new-born babies are very useful for identification purposes and the pores might provide additional information.

Fingerprints are formed on the 120th day of the foetus' development, and only disappear when the tissue disintegrates. They never change, even when the child grows, and always remain intact. They are even intact on Egyptian and Inca mummies. They cannot be altered, even following illness or a deliberate act. While the rest of the body changes, fingerprints stay the same. As Galton has already pointed out, therefore, they can be used to identify new-born babies.

Fingerprints are unique. From the first man who ever lived, to the final representative of our species, every individual has had or will have his own distinct fingerprints. Each phalanx contains at least 100 different marks, dividing it up into 100 sections. Each section of the phalanx will have 1, 2 or 3 marks. Lophoscopy experts claim that 12 such marks are enough to prove that two prints are identical. At least 12 types of mark are known: abrupt, doubled, convergent, divergent, in junction, etc. The first three account for 80% of the total.

In short, the fact that fingerprints cannot be altered means they can be used to identify someone throughout his life. Given the uniqueness of fingerprints, finding a technical method of taking them from new-born babies is all that is required to prevent them from being confused with others.

## The identification of new-born babies in Spain

In Spain, we use the Automatic Fingerprint Identification System, with equipment capable of analysing 600 fingerprints per second. Quite clearly, our own natural, anthropological name, which no-one can challenge, is to be found on our very fingertips. This is not something developed by humans, but the work of nature — it is our natural identity card.

As far as applying this knowledge to new-born babies is concerned, in 1912. Fernando Ortiz told us that Oloriz and Vucetich demonstrated the usefulness of fingerprints in civil documents. They said that every country registered births but, as with a baptism certificate, that document does not prove the baby's identity, unless it can be proved that the document belongs to the person in question. Even then, it was considered very important to add a baby's fingerprints to its birth or baptism certificate. The problem is that a baby's ridges are tiny, and very difficult to print once they have been inked. Hence the difficulty in interpreting the fingerprints. Oloriz and Vucetich regretted the lack of determination shown by those trying to take the prints and predicted that, before long, once a technique for obtaining and fixing fingerprints had been discovered, it would be as easy with newborn babies as with adults. Children could then be issued with identity cards at birth by including their own, unique digital skin pattern on the register of births. Because, so far, there is no link between official documents and babies, and between babies and their mothers. We are working on it. Oloriz and Vucetich also said that the parents' fingerprints, or at least the mother's, should appear on the birth certificate. This is what we are now doing.

After Oloriz, Dr Gomez Fernández is the Spaniard who has studied this subject most. In 1952, he felt that his numerous attempts to take babies' fingerprints had failed, and that the only solution was to take their palm prints, as happened in maternity units throughout the world. But when he found that even though these prints had been taken correctly, they could only be used for identification within the clinic, and not outside, he realized that the fingerprints system had to be used for everyone. We have therefore been striving to solve this problem.

The technique of taking footprints was mastered in Argentina, where the subject was taught. Research was also conducted there on palmprints and then on the two thumbs, but did not provide any answers. In my opinion, the fingerprints of new-born babies should quite simply have been incorporated in the overall identification system. I have therefore worked towards realizing the hopes of Vucetich and Oloriz.

The equipment used is very simple: a metal plate, as for adults; a small quantity of thick ink; a rubber roller for spreading the ink. The child must be kept calm and relaxed.

The best time is perhaps 20 minutes after being born, when the child's condition has been stabilized. Its umbilical cord has been clamped and its eyes disinfected with an antibiotic or chemical solution. The baby is bathed and clothed. Its right hand is carefully washed with soap, it is placed lying down on its stomach on a wooden table about 1.2 metres high, depending on the height of the identification official.

Trying not to lift the baby's hand more than 3 or 4 cm, its fingerprints are very carefully placed on what will become its identity card, beginning with the middle finger of the right hand. The identification official stands on the child's right. He uses his left forefinger to separate the baby's forefinger and thumb, and then lifts the baby's middle finger. His assistant places the inked plate under the baby's finger, lowers the finger onto the ink, lifts it, and then places it onto the area on the identity card reserved for the print of the middle finger. This is a simple procedure for obtaining the prints of the distal and medial phalanges. The operation is carried out six times, with a total of six phalanges being inked. The identification official then uses his left forefinger to separate the baby's right thumb, and repeats the operation

with the baby's forefinger. The other prints are obtained just as easily, and the results are then examined using a magnifying glass (x6). This operation is very easy to carry out and to teach. Spanish forensic scientists claim that results from trained operators are 100% satisfactory.

Technically speaking, therefore, the method is a reality. Let us remember that the baby is lying flat on its stomach on a wooden table covered with a sheet, and must be relaxed. In this position, if its right arm is lifted alongside its head, and its hand is placed on the wood, the hand opens by reflex, and does not close. Very delicately, so as not to frighten the baby, the operator raises its hand vertically 2 or 3 cm, but not more; his assistant then presses the baby's middle finger onto the inked plate, withdraws the plate, and then places the finger onto the identity card made of special paper. The same process is used for the forefinger. The operation is really very simple. In Argentina, there is ongoing training for identifiers. In Madrid, the training was first provided by the University of Alcalá de Henares, then by the Madrid Autonomous Community at the Dr Marañón maternity unit, and at El Escorial. I have personally explained how simple the procedure is during identifications in the United States, and at the Concepción Palacios maternity unit in Caracas, where 100 babies are born every day.

The law, the Convention on the Rights of the Child, and the method already exist. We are all convinced that children have the right to be identified. We know how to do it, as shown by the Madrid Autonomous Community children's identity card, for which results have been 100% successful thanks to teachers from the Spanish Police and to technicians from the Mint and from the Madrid Autonomous Community health services.

In Spain, under the provisions adopted by the Ministry of Justice, declarations of birth must be accompanied by prints of the child's middle and forefingers for inclusion in the birth certificate.

The cost of the equipment required is very low, particularly as the child

will be identified for life, since its fingerprints will be kept in the archives of the general identification system.

We have an enormous task, which is inspired by the work of all our predecessors: a first group of Malpighi, Purkinje, Galton, Vucetich and Oloriz, and then Reyna, Albarracín and the indefatigable Marta Pérez Ferro, apart from those already referred to in this article, which is nothing more than a few succinct notes from the pages of human knowledge. As ever, victory must be shared by all those who have sought the truth. We have found it in Mother Nature whose secrets we have discovered step by step: we carry our natural identity card on our fingertips.