

Science and Harm in Human Rights Cases: Preventing the Revictimization of Families of the Disappeared

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INTRODUCTION

International human rights law and the jurisprudence of the Inter-American Court of Human Rights obligate states to investigate cases of forced disappearance (also called enforced disappearance) until the victim has been found and identified.¹ However, neither specifies the precise mechanisms that states must use to comply with this obligation. Rather, the state's commitment to international law is to guarantee that its agents will honor human rights principles and conduct due diligence in their investigations, regardless of the methods used.²

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1. The International Convention for the Protection of All Persons from Enforced Disappearance obligates states to investigate (article three) and to take all efforts in searching for, locating and releasing disappeared persons and, in the event of death, in exhuming and identifying them and returning their remains (article fifteen). Comm. on Enforced Disappearances, *International Convention for the Protection of All Persons from Enforced Disappearance*, U.N. HUM. RTS. OFF. HIGH COMMISSIONER, arts. 3, 15, <http://www.ohchr.org/Documents/ProfessionalInterest/disappearance-convention.pdf> [<http://perma.cc/A7SB-QL5H>]. Jurisprudence also recognizes these international obligations. See *Gudiel Álvarez v. Guatemala*, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 253, ¶ 195 (Nov. 20, 2012); *Río Negro Massacres v. Guatemala*, Preliminary Objection, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 250, ¶ 112-113 (Sept. 4, 2012); *Torres Millacura v. Argentina*, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 229, ¶ 94 (Aug. 26, 2011); *Gelman v. Uruguay*, Merits and Reparations, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 221, ¶ 73 (Feb. 24, 2011).
 2. See, e.g., *Santo Domingo Massacre v. Colombia*, Preliminary Objections, Merits, and Reparations, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 259, ¶ 157 (Nov. 30, 2012); *Velásquez Rodríguez v. Honduras*, Merits, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 4, ¶ 177 (July 29, 1988).

The motivation for this obligation is to end the uncertainty that families face, make the events of past atrocities public, and, in some cases, collect evidence for criminal proceedings. However, fact finding as a means of reparation can also lead to the revictimization of those affected, thereby causing a secondary harm. Since science and technology can assist with fact finding, they are commonly viewed as furthering processes of truth, justice, and reparation by advancing knowledge of human rights violations committed in the past. Yet, scientific findings can also be at odds with state aims and obligations and can result in the serious secondary harm of revictimization. Revictimization is “the victimization that occurs not as a direct result of the criminal act but through the response of institutions and individuals to the victim.”³

In Chile, identifying the bodies of those disappeared by the military dictatorship emerged as an important part of the state’s reparation policies. However, the Chilean experience also shows how flawed attempts to identify the bodies of the disappeared, including the use of scientific methods that did not conform to the *lex artis*, increased the suffering of family members and worked against the reconciliation and healing aims of the state’s reparation policies. This resulted in revictimization, a new violation of the human rights of the families of victims of forced disappearance.

According to the Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law, a state’s reparation measures must treat the families with humanity, respect their dignity, guarantee their psychological well-being, and not result in new trauma.⁴ Moreover, the Inter-American Court of Human Rights has repeatedly considered that in cases of forced disappearance, the suffering induced by the acts or omissions of state actors in the context of reparation can be considered a

3. *Handbook on Justice for Victims*, U.N. OFF. FOR DRUG CONTROL & CRIME PREVENTION 9 (1999), http://www.unodc.org/pdf/criminal_justice/UNODC_Handbook_on_Justice_for_victims.pdf [<http://perma.cc/XT6C-PPNQ>].

4. G.A. Res. 60/147, annex, Basic Principles and Guidelines on the Right to a Remedy and Reparation for Victims of Gross Violations of International Human Rights Law and Serious Violations of International Humanitarian Law ¶ 10 (Dec. 16, 2005). Paragraph ten refers to the treatment victims and their families and establishes that victims

should be treated with humanity and respect for their dignity and human rights, and appropriate measures should be taken to ensure their safety, physical and psychological well-being and privacy, as well as those of their families. The State should ensure that its domestic laws, to the extent possible, provide that a victim who has suffered violence or trauma should benefit from special consideration and care to avoid his or her re-traumatization in the course of legal and administrative procedures designed to provide justice and reparation.

violation of the families' right to mental and moral integrity.⁵ We view misidentification as constituting a violation of the families' integrity.

Families should not bear the cost of poorly designed reparation policies, and states should do everything in their power to recognize the suffering the families have already endured and prevent causing them further harm.⁶ A broader construction of the reparation obligation that recognizes the risk of revictimization would help states mitigate this harm and better serve the needs of families. For this reason, we recommend that states view forensic identification as part of their reparation obligation to families, both to give families closure and to prevent their revictimization. To do this, states must use state-of-the-art scientific methods and provide mechanisms for families, or their representatives, to observe and participate in the scientific process. This means that the state (1) must provide the families with sufficient information so that they can ask informed questions about the process and understand the risk of misidentification, and (2) disclose when doubts arise about the validity of the scientific methods used by the state in its identification processes. This will allow families to hold the state accountable for meeting its reparation obligation and will bolster the legitimacy of the identification process as a reparation measure. The following case study helps to illuminate these issues.

1. CASE STUDY: MISIDENTIFICATION OF THE DISAPPEARED IN CHILE

Chile is an ideal site for this analysis because it has emerged as a focal point for those interested in the study of domestic and transnational justice in the context of human rights law.⁷ It was also one of the first Latin American nations to use forensic techniques to identify the disappeared in the aftermath of widespread state violence.

As a post-dictatorship society that was not ready to address the challenges of transitional justice, Chile presents a valuable case study for governments in other parts of the world. Chile returned to democracy in 1990, but the enduring influence of the military prevented the newly elected civilian government from prosecuting General Augusto Pinochet and other members of the military. According to the newly elected president, Patricio Aylwin, Chile

5. See, e.g., *Blanco-Romero v. Venezuela*, Merits, Reparations and Costs, Inter-Am. Ct. H.R. (ser. C) No. 138, ¶ 59 (Nov. 28, 2005); *Gómez-Palomino v. Perú*, Merits, Reparations and Costs, Inter-Am. Ct. H.R. (ser. C) No. 136, ¶ 60-61 (Nov. 22, 2005).

6. See, e.g., *González et al. ("Cotton Field") v. Mexico*, Inter-Am. Ct. H.R. (ser. C) No. 205, ¶ 252 (Nov. 16, 2009).

7. See, e.g., NAOMI ROHT-ARRIAZA, *THE PINOCHET EFFECT: TRANSNATIONAL JUSTICE IN THE AGE OF HUMAN RIGHTS* (2005); Cath Collins, *Human Rights Trials in Chile During and After the "Pinochet Years,"* 4 INT'L J. TRANSITIONAL JUST. 67 (2010).

would pursue justice “to the extent possible”; that is, it would address the human rights crimes that took place during the period of military rule, but would act with prudence.⁸ Elite consensus building and negotiation with the military emerged as central components of Chile’s strategy for its transition to democracy because they were seen as a means to prevent the return of military rule. Identifying those who had been disappeared and executed by the military emerged as an early cornerstone of Chile’s truth and reconciliation process because it offered a way to publicly acknowledge, without criminal penalties, what had taken place. This pursuit of truth without justice affected the design and implementation of Chile’s reparation measures. It created a push for the state to name the victims and compensate the families, but it also prevented the state from fully investigating the human rights abuses committed by the dictatorship.⁹

The period of repression in question began on September 11, 1973, when a military coup ended the democratically elected socialist government of President Salvador Allende and began seventeen years of military dictatorship under Augusto Pinochet. The greatest number of killings during the dictatorship occurred in the months immediately following the coup.¹⁰ The bodies of many of those killed during this period arrived at the Chilean Medical Legal Institute in Santiago, and many were then buried in the General Cemetery without being identified, in graves marked “NN” (*nomen nescio*—literally, “I do not know the name”) in a section known as Patio 29. The military later moved many, but not all, of these bodies in an attempt to hide its crimes.¹¹

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8. Former president Patricio Aylwin made this comment repeatedly during his presidency. *See, e.g.,* PATRICIO AYLWIN AZÓCAR, *En Ceremonia de Conmemoración de los 42 Años de la Declaración de Derechos Humanos y el 12 Aniversario de la Comisión Chilena de Derechos Humanos (Dec. 10, 1990)*, in *LA TRANSICIÓN CHILENA: DISCURSOS ESCOGIDOS*, MARZO 1990-1992, at 121 (1992).
 9. For example, in 1991 Chile’s National Commission for Truth and Reconciliation issued a report documenting 2,115 cases of death or disappearance that qualified as human rights violations. The report named the victims, but did not name those suspected of committing the violence. The state provided the families of qualified human rights victims with financial and symbolic reparations and access to benefits. *See generally* NAT’L COMM’N FOR TRUTH & RECONCILIATION, *REPORT OF THE CHILEAN NATIONAL COMMISSION ON TRUTH AND RECONCILIATION* (University of Notre Dame Press 1993).
 10. The Chilean National Corporation for Reparation and Reconciliation identified 1,275 people who were executed in 1973 and 548 who were victims of forced disappearance (1,823 total cases). In the metropolitan region of Santiago, it documented 780 cases of execution in 1973 and 192 cases of forced disappearance (972 total cases). *CORPORACIÓN NACIONAL DE REPARACIÓN Y RECONCILIACIÓN, INFORME SOBRE CALIFICACIÓN DE VÍCTIMAS DE VIOLACIONES DE DERECHOS HUMANOS Y DE LA VIOLENCIA POLÍTICA* 538, 548 (1996).
 11. JAVIERA BUSTAMANTE & STEPHAN RUDERER, *PATIO 29: TRAS LA CRUZ DE FIERRO* 40, 62 (2009).

In 1991, following Chile's return to democracy, the government commissioned the exhumation of 125 bodies from 107 graves in Patio 29. Forensic scientists located an additional skeleton at a later date, bringing the total of bodies exhumed to 126.¹² From 1993 to 2002, the institute, now called the Medical Legal Service (SML), identified ninety-six of these skeletons using techniques grounded in morphology as it sought to match pre-mortem data collected about the victims to post-mortem data from the exhumed bones.¹³ These methods included techniques from physical anthropology to estimate age and stature as well as a technique known as craniofacial superimposition, a visual display of the correlation between the form of an exhumed skull and a photograph of the victim.¹⁴ DNA analysis was still new when the SML began the identification work and the Chilean government lacked laboratory capabilities for this kind of analysis. In the case of Patio 29, the SML used DNA to help identify the last of the ninety-six skeletons, and the state has cited Chile's limited resources as the reason for the delay in adopting this technique.¹⁵

The first skeletons were released to families in March 1993, after the judge handling the Patio 29 case made the identifications suggested by the SML. However, doubts about the identifications soon surfaced. For example, in 1995, a forensic team from the University of Glasgow issued a report that questioned the SML's identifications, including three sets of bones that had already been returned to the families.¹⁶ The SML filed the report away and did not share it with the families or the judge handling the Patio 29 case.¹⁷ Nor did the judge, who had authorized sending blood samples of relatives and duplicated craniums to Glasgow, inquire about the Glasgow findings.¹⁸ The Glasgow report did not draw much attention to the identification practices of the SML at the time it was written. However, inconsistencies in the identifications began to come to light by other means, and multiply. In 2005, the judge who had taken over the Patio 29 case in 2003—Sergio Muñoz, now a Justice of the

12. *Informe de la Comisión de Derechos Humanos, Nacionalidad y Ciudadanía acerca de las Eventuales Irregularidades Cometidas en el Servicio Médico Legal, las que Condujeron a la Errónea Identificación de los Cuerpos Humanos Hallados en el 'Patio 29' del Cementerio General de la Ciudad de Santiago*, COMISIÓN DE DERECHOS HUMANOS, NACIONALIDAD Y CIUDADANÍA 6 (Oct. 2006), <http://ciperchile.cl/wp-content/uploads/Informe-Cámara-Diputados-Patio-29.pdf> [<http://perma.cc/U43M-XMFK>].

13. *Id.*

14. *Id.* at 129.

15. Corte Suprema de Justicia [C.S.J.] [Supreme Court], 19 diciembre 2012, "Largo Vera, Eliana v. Fisco de Chile," Rol de la causa: 9085–2009, Civil, Supreme Court Decision, p. 7 (Chile).

16. BUSTAMANTE & RUDERER, *supra* note 11, at 95.

17. *Id.*

18. *Id.* at 96.

Chilean Supreme Court—ordered that the Patio 29 skeletons be re-exhumed and their DNA tested.¹⁹

Three years later the government announced that at least forty-eight families had received the wrong body.²⁰ The errors were, in part, the result of the techniques the SML scientists had used to identify the bones. Among other things, the team had based its decisions almost exclusively on morphology and had not used more reliable DNA-based methods. In some cases, the pre-mortem data used in an identification lacked the completeness required to differentiate one skeleton from another. Additionally, the SML used the technique of craniofacial superimposition as a basis for positive identification. A form of this technique had been used previously in high profile cases to help identify the bodies of the Cuban revolutionary Ernesto “Che” Guevara and the Nazi war criminal Josef Mengele.²¹ However, the scientific literature had raised doubts about the accuracy of the technique and argued that it was best suited for exclusion, not positive identification, and as best used always in conjunction with other more reliable methods.²² A scientific audit conducted by the SML in 2006 argued that the scientists’ familiarity with individual cases introduced unconscious bias into their analysis of the bones.²³ The audit further noted that the SML scientists lacked adequate access to key resources, including scientific periodicals in their areas of specialization.²⁴

The SML had begun its identification work during a period of scientific transition characterized by the emergence of new molecular methods grounded in DNA analysis, but it also did not use its more traditional techniques in ways that minimized the risk of misidentification. As an institution, the SML (and by extension the Chilean government) had also failed to make public, and publicly respond to, the challenges to its methods raised by other well-respected members of the scientific community, including scientists from the University of Glasgow, the University of Granada, and the Chilean forensic anthropology community. The Chilean government also did not make mitochondrial DNA testing, which was available in the 1990s, a standard part of its forensic identification process. While mitochondrial DNA cannot provide the basis for a positive identification, it can be used to locate identification errors.

19. *Id.* at 40, 99.

20. *Id.* at 105.

21. See THOMAS KEENAN & EYAL WEIZMAN, *MENGELE’S SKULL: THE ADVENT OF A FORENSIC AESTHETICS* (2012).

22. Cf. A.W. Shahrom et al., *Techniques in Facial Identification: Computer-Aided Facial Reconstruction Using a Laser Scanner and Video Superimposition*, 108 INT’L J. LEGAL MED. 194, 200 (1996).

23. Maria Cristina N. de Mendonça et al., *Auditoria Científica a Patio 29*, at 54 (2006).

24. *Id.* at 55.

The misidentifications caused substantial harm to victims' relatives. As one family member put it, the errors in identification made him once again the child of someone who had been disappeared.²⁵

II. FAMILIES, REPARATION, AND THE OBLIGATION TO PREVENT REVICTIMIZATION

Under international human rights law, victims have the right to effective remedy and fair compensation when the state fails to respect and guarantee the rights of human beings.²⁶ According to the United Nations, families of the disappeared qualify as victims; the U.N. Working Group on Enforced or Involuntary Disappearances writes that “both the disappeared person and those who have suffered harm as a result of the disappearance [are] victims of the enforced disappearance.”²⁷ In the context of gross human rights violations related to forced disappearance, states must identify the disappeared and investigate the facts surrounding their disappearance, a requirement recognized by the U.N. Economic and Social Council:

[T]he family of the direct victim has an imprescriptible right to be informed of the fate and/or whereabouts of the disappeared person and, in the event of decease, that person's body must be returned to the

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25. This observation comes from the interviews Eden Medina conducted with families of the Patio 29 victims as part of her ongoing research project on the Patio 29 history. The Inter-American Court of Human Rights has also recognized that a lack of diligence in determining the identity of human remains “exacerbates the feeling of helplessness, lack of protection and defenselessness of these families.” *González (“Campo Algodonero”) v. México*, Preliminary Objection, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 205, ¶ 421 (Nov. 16, 2009).
 26. *Cf.* Int'l Law Comm'n, Titles and Texts of the Draft Articles on “Responsibility of States for Internationally Wrongful Acts,” U.N. Doc. A/CN.4/L.602/Rev.1, art. 1 (July 26, 2001). This principle is also established in the American Convention on Human Rights. *See* Organization of American States, American Convention on Human Rights, Nov. 22, 1969, O.A.S.T.S. No. 36, 1144 U.N.T.S. 123, art. 63. It is also found in the jurisprudence of the Inter-American Court of Human Rights. *See, e.g.,* *Saramaka People v. Suriname*, Preliminary Objections, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 172, ¶ 188 (Nov. 28, 2007); *Albán-Cornejo v. Ecuador*, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 171, ¶ 138 (Nov. 22, 2007); *Chaparro Álvarez & Lapo Íñiguez v. Ecuador*, Preliminary Objections, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 170, ¶ 219 (Nov. 21, 2007).
 27. Human Rights Council, Rep. of the Working Group on Enforced or Involuntary Disappearances, addendum, Study on Enforced or Involuntary Disappearances and Economic, Social and Cultural Rights, ¶ 2, U.N. Doc. A/HRC/30/38/Add.5 (2015).

family as soon as it has been identified, regardless of whether the perpetrators have been identified or prosecuted.²⁸

The state thus has obligations to investigate the facts of the case, locate and identify the body of the disappeared person, and return the body to the family as soon as possible.

These international state obligations fall within the ample concept of reparation that the Inter-American Court of Human Rights has developed: reparation “covers the various ways a State may make amends for the international responsibility it has incurred (*restitutio in integrum*, payment of compensation, satisfaction, guarantees of non-repetitions among others).”²⁹ States must also consider the circumstances of each case to ensure that the reparation measures implemented are proportional, full, and effective.³⁰ This obligation extends beyond forensic identification and is a guarantee that the human rights of families will be protected through reparation.³¹

Families have an important role in reparation. The Inter-American Commission on Human Rights recommends giving the families a way to participate in the design and implementation of reparation measures because doing so “would make the reparations policies more relevant and rational, and prevent measures that could be discriminatory.”³² The U.N. Special Rapporteur on the promotion of truth, justice, reparation and guarantees of non-recurrence argues that “[r]eparations will only be successful if victims and civil society at large have been involved in the design of the schemes, so the

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28. Diane Orentlicher (Independent Expert To Update the Set of Principles To Combat Impunity), *Updated Set of Principles for the Protection and Promotion of Human Rights Through Action To Combat Impunity*, addendum, principle 34, U.N. Doc. E/CN.4/2005/102/Add.1 (Feb. 8, 2005).
29. See, e.g., *Loayza-Tamayo v. Perú*, Reparations and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 42, ¶ 85 (Nov. 27, 1998).
30. G.A. Res. 60/147, *supra* note 4, ¶ 18.
31. Cf. *id.* ¶ 22(b), (c). This interpretation of the scope of the right to reparation for families is in accordance with Article 1 of the American Convention on Human Rights and the jurisprudence of the Inter-American Court of Human Rights. They affirm that complying with international human rights obligations requires states to organize government institutions and all structures through which public power is exercised to ensure the free and full enjoyment of human rights and prevent the violation of those rights recognized by the Convention. See, e.g., *Velásquez Rodríguez v. Honduras*, Merits, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 4, ¶ 177 (July 29, 1988).
32. Inter-American Commission on Human Rights [Inter-Am. Comm’n H.R.], *Principal Guidelines for a Comprehensive Reparations Policy*, ¶ 13, OEA/Ser/L/V/II.131 Doc. 1 (Feb. 19, 2008), <http://www.cidh.org/pdf%20files/Lineamientos%20Reparacion%20Administrativa%2014%20mar%202008%20ENG%20final.pdf> [<http://perma.cc/PGW4-NASQ>].

measures are commensurate to the harm inflicted and contribute to the recognition of the victim[s] as rights holders.”³³

Forensic identification is a form of reparation, and families should have the right to observe and participate in the identification process. States therefore should keep the families informed, clearly convey the risk of misidentification, and give the families a mechanism for asking questions and challenging state practices.³⁴ Such participation would increase transparency and thus further the legitimacy of state reparation policies. Family participation in observing the scientific process also would diminish the possibility that families will be revictimized by the state and increase the confidence that families have in forensic identifications.

Full and effective reparation can be achieved only when states implement measures that prevent the revictimization of those affected or minimize the risk that revictimization will occur. In the case of *Patio 29*, the state twice harmed the families of the misidentified victims. It made their loved ones disappear once due to state violence, then again because of state error.

III. THE OBLIGATION TO PREVENT REVICTIMIZATION AS PART OF REPARATION

We propose that in regard to identification, reparation for families should be understood as: (1) the obligation of the state to end the long process of uncertainty endured by the family of the disappeared person; and (2) the need for the state to develop policies that minimize the possibility of identification error and revictimization. This broader understanding of reparation in the area of identification provides states with a framework for minimizing harm; grants families additional grounds to hold the state accountable for its reparation obligations; and offers added guidance to judges who must consider the evidence and decide when evidence is sufficient to meet the standard of identification for human remains.

In the case of *Patio 29*, the Chilean state’s idea of reparation stressed giving closure to the families of the disappeared. But it did not take measures to ensure that the identification techniques used by the SML adhered to best

33. Pablo de Greiff (Special Rapporteur on the Promotion of Truth, Justice, Reparation and Guarantees of Non-recurrence), *Report of the Special Rapporteur on the promotion of truth, justice, reparation and guarantees of non-recurrence*, Pablo de Greiff, ¶ 54, U.N. Doc. A/HRC/21/46 (Aug. 9, 2012), http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session21/A-HRC-21-46_en.pdf [<http://perma.cc/Q2UD-HVJ7>].

34. See G.A. Res. 60/147, *supra* note 4, ¶ 24.

practices. As we now know, techniques used by the SML had a high margin of error and were not practiced in ways that conformed to the *lex artis*.³⁵

Moreover, the Chilean state did not clearly convey to the families the risk that misidentifications might occur or the doubts that subsequently were raised by other members of the scientific community, such as those contained in the Glasgow report.³⁶ While the families were given a chance to participate as sources and recipients of information about their loved ones, they were not given a means to participate as informed observers of the scientific process.³⁷

A state that takes the process of investigation and the risk of revictimization seriously must ensure that at every step its investigation uses *all necessary technical and scientific means available for locating and identifying the remains of missing victims*. States also must take steps to *minimize the risk of misidentification by allowing families, or their representatives, to observe and follow the identification process*. This provides a means for families to participate in the design and implementation of the reparation measures. For this kind of participation to occur, states must report the details of the identification process to the families and disclose the risk of error clearly so that the families can understand.

The Inter-American Court of Human Rights supports both of these points in writing that the process of finding and identifying victims:

should be carried out systematically and have adequate and appropriate human, technical and scientific resources; furthermore, if necessary, the cooperation of other States should be requested. A strategy for communicating with the next of kin should be established in relation to these procedures, under a coordinated action plan, in order to ensure their participation, awareness and presence in keeping with the relevant protocols and guidelines.³⁸

As the court recognizes, identification requires the use of appropriate resources and techniques, but this is not enough. The families must also be present, aware, and participating in the process.

35. Corte Suprema de Justicia [C.S.J.] [Supreme Court], 19 diciembre 2012, “Largo Vera, Eliana v. Fisco de Chile,” Rol de la causa: 9085–2009, Civil, Supreme Court Decision, p. 16–17 (Chile).

36. This observation comes from the interviews Eden Medina conducted with families of the Patio 29 victims as part of her ongoing research on the Patio 29 history.

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38. Rodríguez Vera v. Colombia, Preliminary Objections, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 287, ¶ 564 (Nov. 14, 2014); *see also* Osorio Rivera v. Perú, Preliminary Objections, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 274, ¶ 251 (Nov. 26, 2013); Contreras v. El Salvador, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 232, ¶ 191 (Aug. 31, 2011).

Finally, states must *guarantee transparency in the forensic identification process*.³⁹ Doubts about the validity of identifications must be made public. Moreover, states must respond to these doubts publicly in order to maintain the legitimacy of the reparation process.

In the nine years since the Patio 29 identification errors came to light, the Chilean government has taken substantial steps to improve its forensic identification practices. For example, it has reorganized the SML and trained a new group of forensic experts who specialize in human rights cases.⁴⁰ The state now bases its identifications on DNA analysis performed by internationally accredited laboratories and no longer uses the technique of craniofacial superimposition. At the same time, the credibility of the service has suffered serious damage. Families also continue to experience the emotional and psychological effects of the Patio 29 misidentifications, including lingering doubts about whether the new DNA-based identifications are trustworthy. These enduring effects of the Patio 29 misidentifications make it an important case study for evaluating state reparation practices in the context of forensic identification and rethinking how they should be designed to better emphasize the needs of victims of state violence.

Given the many uncertainties associated with fact finding in the aftermath of human rights–related crimes, and forced disappearance in particular, errors in identification will most likely occur in the future. Experience teaches us that the state must constantly evaluate the needs of those affected, the reliability of current scientific techniques, and the resources that are required to minimize risk and adhere to best practices. If necessary, states should seek international cooperation to guarantee that the families’ rights are protected in the design and implementation of reparation measures.⁴¹

39. The United Nations Working Group on Enforced or Involuntary Disappearances maintains that “[t]he State, or any other authority, should not undertake the process of identification of the remains, and should not dispose of those remains, without the full participation of the family and without fully informing the general public of such measures.” U.N. Working Grp. on Enforced or Involuntary Disappearance, *Compilation of General Comments on the Declaration on the Protection of All Persons from Enforced Disappearance*, U.N. HUM. RTS. OFF. HIGH COMMISSIONER 30, U.N. Doc. E/CN.4/1996/38 (1996), http://www.ohchr.org/Documents/Issues/Disappearances/GeneralCommentsDisappearances_en.pdf [<http://perma.cc/YME8-C4DP>].

40. SERVICIO MÉDICO LEGAL, MEMORIAS: PROGRAMA DE DERECHOS HUMANOS 2007-2010, at 65 (2010).

41. The International Convention for the Protection of All Persons from Enforced Disappearance, of the Committee on Enforced Disappearance, in article fifteen, establishes the duty of states to provide mutual cooperation and assistance to assisting victims of enforced disappearance, and in searching for, locating and releasing disappeared persons and, in the event of death, in exhuming and identifying them and returning their remains. See Comm. on Enforced Disappearances, *supra* note 1, art. 15.

CONCLUSION

New applications of science and technology will continue to emerge in the area of human rights. These techniques have the potential to open novel avenues for pursuing justice in the area of forced disappearance. But they also have the potential to harm victims and their families if they form the basis for legal decisions and are subsequently found to be unreliable.

The experience of Patio 29 holds important lessons for how states can navigate these perils and design policies that better meet their human rights obligations. To do this, states must minimize the risk of error in the design of reparation policies by informing the families so that they can participate in the identification process and by adopting scientific techniques and institutional practices that prevent or minimize the serious harm that could result. Expanding understandings of reparation to include revictimization will help states ensure that “nunca más” (never again) applies not only to the most serious violations of human rights but also to protecting the dignity and integrity of families.

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