INTERNATIONAL DECISIONS

EDITED BY JULIAN ARATO

State immunity from jurisdiction—grave violations of human rights—peremptory norms—compensation proceedings—Brazilian Supreme Court

KARLA CHRISTINA AZEREDO VENÂNCIO DA COSTA AND OTHERS v. FEDERAL REPUBLIC OF GERMANY. Judgment ARE 954858/RJ. *At* https://redir.stf.jus.br/paginadorpub/paginador.jsp?docTP=TP&docID=757448754.
Supremo Tribunal Federal, August 23, 2021.

In its final Judgment in the *Changri-lá* case,[1] the Brazilian Supreme Court found that "unlawful acts committed by foreign States in violation of human rights, within national territory, do not enjoy immunity from national jurisdiction."[2] This decision departs from the landmark 2012 judgment of the International Court of Justice (ICJ) in *Jurisdictional Immunities*, which found that Italian courts should have afforded Germany sovereign immunity even with respect to claims of grave human rights violations, including war crimes.[3] *Changri-lá* represents the first decision by a national Supreme Court to defy the ICJ on this question, affirming that *as a matter of international law*, states do not enjoy immunity from jurisdiction for acts in (grave) violation of human rights.

Like *Jurisdictional Immunities*, the Brazilian case arose out of Germany's conduct during World War II. It concerned a claim to compensation for the sinking of a fishing boat (*Changri-lá*) by a German U-199 submarine, which resulted in the death of ten fishermen in July 1943. The complainants, Karla Christina Azeredo Venâncio da Costa e and others, are grandchildren, or their widows, of one of the victims (p. 5). In 2001, an administrative fact-finder, the Brazilian Maritime Tribunal, concluded that the German submarine had intentionally torpedoed the *Changri-lá* in an act of war.[4] The event took place in the

[1] Karla Christina Azeredo Venâncio da Costa e Outros v. República Federal da Alemanha, ARE 954858/RJ, Supremo Tribunal Federal, 23 de Agosto de 2021, Diário de Justiça Eletrônico No. 191/2021, 24 de Setembro de 2021, 39, *at* https://redir.stf.jus.br/paginadorpub/paginador.jsp?docTP=TP&docID=757448754. (Translations my own), following a motion for clarification at Karla Christina Azeredo Venâncio da Costa e Outros v. República Federal da Alemanha, ARE 954.848/ED RJ, Supremo Tribunal Federal, 23 de Maio de 2022, Diário de Justiça Eletrônico 170/2022, 26 de Agosto de 2022, 53, *at* https://redir.stf.jus.br/paginadorpub/paginador.jsp?docTP=TP&docID=762538346.

[2] The judgment did not concern German immunity from enforcement (p. 1). Germany was notified about the proceedings but did not have an active participation in it (p. 7).

[3] Jurisdictional Immunities of the State (Ger. v. It.: Greece intervening), 2012 ICJ Rep. 99 (Feb. 3).

[4] Processo No. 812/1943, Tribunal Marítimo, Acórdão de 31 de Julho 2001.

https://doi.org/10.1017/ajil.2023.6 Published online by Cambridge University Press

Brazilian territorial sea, close to the city of Cabo Frio when Brazil had already declared a state of war (pp. 14–15).[5]

On that basis, the complainants filed suit in 2006 at the Federal Court of Rio de Janeiro (First Instance). Judge Júlio Emílio Abranches Mansur decided that the claim was inadmissible because of German immunity for *acta jure imperii*.[6] On appeal, the Superior Court of Justice unanimously agreed that Germany was "absolutely immune from Brazilian jurisdiction" regarding *acta jure imperii*.[7]

The complainants appealed to the Constitutional Court, which is the final instance of appeal in Brazil's judicial system. Justice Edson Fachin wrote for a 6–5 majority. His opinion is grounded in both international law and Brazilian constitutional law. It determines that international law affords Germany only relative immunity from jurisdiction, basing his finding primarily on Italy's arguments and Judge Cançado Trindade's dissenting opinion in *Jurisdictional Immunities*. It further determines that Article 4, II of the Brazilian Constitution, which provides that "the international relations of the Federative Republic of Brazil are governed by the . . . (ii) prevalence of human rights,"[8] prioritizes human rights over immunity.

The opinion proceeds in four parts. First, it recalls the Court's traditional jurisprudence on the topic, i.e., recognizing foreign states' immunity from jurisdiction for *acta jure imperii*.[9] In that context, the opinion affirms that Brazil is not a party to the UN Convention on the Immunities of States and their Properties (UN Convention) or any like instrument. Thus, in Brazil, the matter is regulated by customary international law (CIL) (p. 10).

Second, the opinion differentiates *Changri-lá* from previous cases decided by the Court. In earlier decisions, mainly dealing with labor relations, the Court ruled that foreign states did not enjoy immunity from jurisdiction for *acta jure gestionis*, only *imperii*.[10] For Fachin, these precedents, however, did not concern cases of human rights violation and war crimes like the *Changri-lá*—and concentrating on this fact could justify a departure from the rule of absolute immunity from jurisdiction in relation to *acta jure imperii* (p. 13). In so doing, Justice Fachin implicitly found that Germany had violated international obligations even before assessing whether it was entitled to immunity (p. 18).[11]

[5] Decreto No. 10.358, Presidente da República, 31 de Agosto de 1942.

[6] Karla Christina Azeredo Venâncio da Costa e Outros v. República Federal da Alemanha, Processo No. 0016934-54.2006.4.02.5101, Juízo da 14ª Vara Federal do Rio de Janeiro, 19 de Dezembro de 2007.

[7] Karla Christina Azeredo Venâncio da Costa e Outros v. República Federal da Alemanha, AgRg no RO 129/RJ 2012/0010078-0, Superior Tribunal de Justiça, 02 de Outubro de 2014, 1, *at* https://processo.stj.jus.br/processo/revista/documento/mediado/?componente=ITA&sequencial=1352810&num_registro=201200100780&data=20141015&peticao_numero=201400308229&formato=PDF.

[8] In his dissenting opinion, Justice Mendes also mentioned other principles under Article 4: "national independence" (I), "equality among the States" (V), and "defense of peace" (VI) (pp. 46–47). Fachin addressed the conflict between sovereign equality and the prevalence of human rights but did not present a precise balancing between them (p. 1).

[9] The leading case is: Genny de Oliveira v. Embaixada da República Federal da Alemanha, ACi 9.696/SP, Supremo Tribunal Federal, 31 de Maio de 1989.

[10] They had followed the *Genny de Oliveira* precedent. *Id.*

[11] That contradicts the ICJ, which considers immunity issues preliminary in nature; they should be analyzed before ruling on the merits—on whether or not a violation happened. Contrarily, the Italian Constitutional Court understands that a *prima facie* assessment of the merits can be made. That is actually common in preliminary proceedings. *Jurisdictional Immunities of the State*, *supra* note 3, para. 82. Simoncioni v. Repubblica Federale di Germania, Corte Costituzionale, 22 Ottobre 2014, n. 238, para 2.2.

https://doi.org/10.1017/ajil.2023.6 Published online by Cambridge University Press

The third part deals directly with the immunity question under international law. Fachin initially appeals to the territorial tort exception to state immunity, as contained in Article 12 of the UN Convention and reflected in the commentaries of the International Law Commission (ILC) in the Draft Articles on Jurisdictional Immunities of States and their Property. He explains that the tort exception makes no distinction between *jure imperii* and *jure gestionis* acts[12] (pp. 18–19).[13] In his view, the ILC's version of the territorial tort exception implies that there is not *absolute* immunity for *acta jure imperii* (p. 20).

Further, Justice Fachin finds that [even if *acta jure imperii* are entitled to absolute immunity,] violations of *jus cogens* norms cannot be considered *acta jure imperii*.[14] Criticizing the *Jurisdictional Immunities* precedent as "conservative," "traditional," and "classic,"[15] Fachin notes that the decision is binding only on the litigating parties. Beyond that, the ICJ judgment is merely a subsidiary means for ascertaining rules of international law (pp. 31–32). Considering the development in state practice,[16] Fachin explains that "new paths are, therefore, still open."[17] He then mostly ignores the ICJ's judgment. The sole direct reference to it concerns the 1963 lump sum compensation agreement between Italy and Germany. Justice Fachin mentions the absence of any similar agreement between Germany and Brazil and concludes, seemingly because of this absence, that "the relativization of immunity from State jurisdiction in case of unlawful acts exercised in the territory of the court in violation of human rights remains, as I see it, possible" (pp. 32–33).

In the fourth part, the Constitutional Court articulates the 1988 Brazilian Constitution's "principle of the prevalence of human rights" harmoniously with Cançado Trindade's understanding of the international law of immunities in his *Jurisdictional Immunities* dissent (p. 37).[18] For Fachin, the Constitution's drafters adopted a new paradigm for international relations within the constitutional order (pp. 36–37). In other words, it is not simply a matter of dualism or conflict between constitutional rights and a rule of international law providing for state immunity. The Brazilian Constitution provides for how the international legal order must be apprehended by organs in the Brazilian legal order—specifically by prioritizing human rights. Fachin understands that Cançado Trindade supported this new paradigm,

[12] In very simplified terms, *acta jure imperii* has been associated with "political activities," "the 'very core of State authority,'" including "foreign and military affairs, legislation and exercise of police power and the administration of justice." *Acta jure gestionis,* conceptualized as an exception to immunity, is mostly concerned with commercial activities, where the state performs as a private person in foreign jurisdiction. Hazel Fox & Philippa Webb, The Law of State Immunity 403, 407 (3d ed. 2018)

[13] UN International Law Commission, Draft Articles on Jurisdictional Immunities of States and Their Property, with Commentaries, 45, UN Doc. A/46/10 (1991).

[14] Fachin also invoked the normative hierarchy theory, whereby states are not entitled to immunity in case of *jus cogens* norms violations because these are hierarchically superior to the rule granting immunity (p. 22).

[15] These words were used by Valério Mazzuoli, a Brazilian scholar quoted by Fachin (pp. 28–29). Valério Mazzuoli, Curso de Direito Internacional Público 476–80 (12th ed. 2019).

[16] Fachin's reference to state practice development is entirely contained in Italy's Counter-memorial in the *Jurisdictional Immunities* case, but for some recent cases: the *Comfort Women* case at the Central District Court of Seoul; and *Hungary v. Simon* and *Germany v. Philipp* at the U.S. Supreme Court. He did not elaborate on any of them (pp. 25–26).

[17] Justices Mendes, Moraes, and Garcia—in their dissenting opinions—the Federal Prosecution Office (as *custos legis*), and the Office of the General Counsel for the Federal Government (as *amicus curiae*) followed the ICJ precedent.

[18] *Jurisdictional Immunities of the State*, *supra* note 3, para. 129 (diss. op., Cançado Trindade, J.).

https://doi.org/10.1017/ajil.2023.6 Published online by Cambridge University Press

under which, "in the words of Cançado Trindade, no longer preponderates the sovereignty of States, but human beings" (*id.*).

In this case, Fachin found that the human rights of the victims' families should prevail in two respects.[19] First, Fachin considered that the right to truth should prevail, such that families should be able to know the fates of their members (p. 33).[20] Second, Fachin considered that "access to justice" is itself a fundamental human right sufficient to cast aside immunity in this case (pp. 34–35).[21] Like Cançado Trindade, the Court aligned itself with the view that human interests prevail over state sovereignty in contemporary international law, meaning, here, that the human rights "to life, truth, and access to court" shall prevail over immunity (pp. 36–37).[22]

In concluding, Fachin uses a sentence from Cançado Trindade's dissenting opinion as a catchphrase: "[A] crime is a crime." Acts in violation of human rights ought not be considered *jure imperii* but *jure criminis*.[23] He concludes that "immunity must, thus, yield before an act attacking human rights. It is not, as seen, an absolute rule." On that basis, he advances the following "thesis" (*Tema* 944):[24] "unlawful acts committed by foreign States in violation of human rights do not enjoy immunity from national jurisdiction" (p. 39). The Constitutional Court adopted his opinion and his proposed thesis by a 6–5 majority.

Following the Judgment, the prosecutor general of the republic filed a motion for clarification. The motion requests the Court to limit its precedent to "international crimes implying grave violation of human rights and humanitarian law," instead of unlawful acts in violation of human rights, and to limit its precedent to acts taking place in national territory.[25] This was not an appeal. The point of this motion is that these changes in the thesis would better and more clearly reflect the judgment. The majority rejected the first but

[19] Fachin's articulation is confusing on whose rights are under analysis—those of the attack victims or of their families (p. 33).

[20] His reference was Article 32 of the 1977 Additional Protocol I to the 1949 Geneva Conventions. Mendes considered that, in 1943, referring to the 1949 Geneva Conventions and to the 1977 Additional Protocol I, the allegedly violated rules of international humanitarian law were not part of positive international law (p. 74). He did not elaborate on the state of customary international law in 1943.

[21] In that respect, Fachin quoted Cançado Trindade's arguments in favor of the right to access to court against the German *forum shopping* argument (pp. 34–35). *Jurisdictional Immunities of the State*, *supra* note 3, paras. 128–29 (diss. op., Cançado Trindade, J.).

[22] The Brazilian Supreme Court and a significant part of the Brazilian international law scholarship embraced the thought of Cançado Trindade. To such an extent that a proper understanding of this case depends on previous knowledge of his thought. A good reference is his General Course at the Hague Academy. ANTÔNIO AUGUSTO CANÇADO TRINDADE, INTERNATIONAL LAW FOR HUMANKIND: TOWARDS A NEW *JUS GENTIUM* (3d rev. ed. 2020).

[23] *Acta jure criminis* is adopted by the present author, not originally by the Brazilian Supreme Court. In his dissenting opinion, Justice Garcia criticized adopting a third category of state acts, besides *jure imperii* and *jure gestionis.* His opinion lies on the fundamental law of logic of the excluded third. Considering the nature of states' acts, under positive international law, they can be either *jure imperii* or *jure gestionis*; there is no third option to include illegal acts (pp. 85–86). Thus, the fact that an act of war violates human rights does not deprive it of being characterized as an act *jure imperii.* If Brazil and Germany were parties to a treaty denying immunity for *jure imperii* acts in violation of human rights, there would be no logical contradiction. In this case, the nature and the lawfulness of the acts would be considered in their classification, i.e., "the third" would be included.

[24] Here, a "thesis" is fixed in the context of an "extraordinary appeal" deemed to address a constitutional matter of "general repercussion." Cases in the Brazilian Judicial System dealing with the same subject-matter had been suspended while the *Changri-lá* case was underway in the Supreme Court and the fixed thesis shall be applied in those cases. Also, the thesis is considered in the admissibility of appeals to the Supreme Court. *See* Brazilian Code of Civil Procedure, Law 13.105/2015, Arts. 1.030, 1.035.

[25] Karla Christina Azeredo Venâncio da Costa e outros (ARE 954.858/ED RJ), *supra* note 1, at 8.

https://doi.org/10.1017/ajil.2023.6 Published online by Cambridge University Press

welcomed the second request—finding that only the latter change accurately reflects the spirit of the judgment.[26]

* * * *

At first glance, this decision seems relevant as an instance of state practice supporting further restricting state immunity. In fact, it is a particularly probative example, as it represents a national supreme court explicitly engaging with and rejecting the ICJ's approach to sovereign immunity—the first to do so since 2012. However, the opinion is open to criticism. The biggest problems concern the Court's: (1) use of human rights violations, rather than the more serious category of international crimes, as the threshold for denying immunity; and (2) approach to the relationship between international and domestic law.

The great novelty of the *Changri-lá case* lies in how low it sets the threshold for setting aside immunity: a mere violation of human rights. This seems much too low. This understanding is especially problematic where the exercise of extraterritorial jurisdiction is concerned, but, after the motion for clarification, the precedent was rewritten to include only acts within national territory. As seen above, the prosecutor general unsuccessfully questioned the threshold itself. He underlined that the foreign precedents underpinning Fachin's opinion and Cançado Trindade's dissent refer to "international crimes."[27] Professors Lucas Lima and Aziz Saliba also raised the issue in their commentary on the case, questioning why "war crimes" or "'gross violations' of human rights" were not adopted as the threshold.[28] Instead, by setting the threshold at mere violations of human rights, the Court advanced an unprecedented position on relative immunity.

To address these criticisms, one must make sense of how the Constitutional Court worked out "international crimes," "human rights," and "peremptory norms." In the third part, focusing on the international legal order, Fachin followed Italy in *Jurisdictional Immunities* and understood that a violation of *jus cogens* norms (or an international crime) cannot be considered a sovereign act. Under that perspective, there would be no *acta jure imperii* for which Germany was to enjoy immunity from jurisdiction. By quoting Italy, he also addressed the normative hierarchy theory, under which *jus cogens* norms are prioritized over all others, including immunity rules (*see* note 14 *supra*). Indeed, that has been a common doctrinal approach for reformists since the 1990s.[29] However, immediately after quoting Italy, he concluded that "thus, there is either no act of State or the immunity arising therefrom must yield before the preponderance of human rights" (p. 25). In that exercise, he clearly conflated the concepts human rights rules and *jus cogens* rules, weakening the opinion's analysis of international law.

[26] *Id*. at 7–8.

[27] Petição ARESV/PGR No. 372245/2021, Supremo Tribunal Federal, 14 de Outubro de 2021.

[28] Lucas Carlos Lima & Aziz Tuffi Saliba, *The Immunity Saga Reaches Latin America. The* Changri-lá *Case*, EJIL: *TALK!* (2021), *at* https://www.ejiltalk.org/the-immunity-saga-reaches-latin-america-the-changri-la-case. Lima and Saliba had also published a paper in the *Brazilian Journal of International Law* prior to the decision, which can be taken as reference: Aziz Tuffi Saliba & Lucas Carlos Lima, *The Law of State Immunity Before the Brazilian Supreme Court: What Is at Stake with the "*Changri-Lá*" Case?*, 18 REVISTA DE DIREITO INTERNACIONAL 53 (2021).

[29] Largely following the steps of Adam C. Belsky, Mark Merva & Naomi Roht-Arriaza, *Implied Waiver Under the FSIA: A Proposed Exception to Immunity for Violations of Peremptory Norms of International Law*, 77 CAL. L. REV. 365 (1989).

https://doi.org/10.1017/ajil.2023.6 Published online by Cambridge University Press

In contrast, in turning to the Brazilian constitution, Fachin directly emphasizes human rights, particularly the rights to truth and to access to court. In light of the international legal possibility of relativizing immunity for acts of state, Fachin turned to the requirements of the Brazilian constitution in this regard. From there, the argument is simple. In the view of the Court: the Constitution determines the "prevalence of human rights" in Brazil's international relations; he picks the (human) rights to truth and to access to court from the international legal order; these rights prevail over state immunity. Lima and Saliba have opined that the "the decision ended up by stressing domestic values over international rules,"[30] similarly to the Sentenza 238 of the Italian Constitutional Court.[31] But this misses the point. In formal terms, the Brazilian Court found that international law permits relativizing German immunity, while the Brazilian constitution requires doing so in relation to human rights violations (Article 4, II). Thus, it can be maintained that the Court understood itself to be applying international law in conjunction with, not in conflict with, Brazilian constitutional law. The way the Court conflated the normative hierarchy theory (*see* note 14 *supra*), used by some in the international legal epistemic community, with the constitutional "prevalence of human rights" is certainly reproachable.

That said, the Court's handling of Brazilian constitutional law is subject to criticism. As raised by Justice Mendes (*see* note 8 *supra*), Article 4 of the Constitution presents other principles governing Brazil's international relations, including "national independence" and "equality among the States." The weight given to the "prevalence of human rights" seemed arbitrary or, at any rate, unconvincing—at least for those who do not follow Cançado Trindade.

And from an international law perspective, the criticism remains that the Court did not adequately address "conservative" foreign and international precedents. In other words, it concluded much too easily that Germany's immunity in that case could be relativized, and with an unprecedently low threshold. The focus of the opinion is naturally on *Jurisdictional Immunities*, which the majority waived away as binding only on the litigating parties in that case and, otherwise, qualified as merely a subsidiary means for determining rules of law. While this is true, to rely on the decision's non-binding character might be "something quite reckless in the international legal order,"[32] especially where the purpose of advancing a new rule of CIL is concerned—where, *inter alia*, persuading other relevant actors is necessary. It should be acknowledged, however, that customary international law is often made in the breach.

The fact is that the Brazilian Court's approach opens a broader question about the role of precedents by international courts. The international legal epistemic community is used to reading ICJ decisions as, if not *erga omnes* binding, authoritative statements of international law.[33] Yet, the authoritativeness of international judicial decisions (or WTO Appellate Body reports[34]) is difficult to grasp, especially if contrasted with states' own authority to interpret

[30] Lima & Saliba, *supra* note 28.

[31] *See Simoncioni v. Reppublica Federale di Germania*, *supra* note 11.

[32] Lima & Saliba, *supra* note 28.

[33] Ingo Venzke, *Authoritative Interpretation*, MAX PLANCK ENCYCLOPEDIAS INT'L L., *at* https://opil.ouplaw.com/display/10.1093/law-mpeipro/e3528.013.3528/law-mpeipro-e3528.

[34] I naturally refer to the U.S.-American stance against the Appellate Body's position that panels should follow AB Reports "absent cogent reasons." United States Trade Representative, *Report on the Appellate Body of the World Trade Organization* (2020), *at* https://ustr.gov/sites/default/files/Report_on_the_Appellate_Body_of_the_World_Trade_Organization.pdf.

https://doi.org/10.1017/ajil.2023.6 Published online by Cambridge University Press

and apply international rules in a horizontal legal system. Brazil, according to the Supreme Court, has made a normative choice to interpret and apply international law according to the prevalence of human rights. It remains to be seen, however, whether the Brazilian precedent will herald a new customary norm of relative immunity, or just one more breach of the status quo rules.

EDUARDO CAVALCANTI DE MELLO FILHO
Graduate Institute of International and Development Studies, Geneva
doi:10.1017/ajil.2023.6

Exequatur *of foreign judgments—public policy—9/11 terrorist attack—sovereign immunity—Foreign Sovereign Immunities Act—terrorism exception—tort exception—human rights*—jus cogens—*customary international law*

STERGIOPOULOS V. IRAN. Order No. 39391/2021. 105 Rivista di diritto internazionale 620 (2022). *At* http://www.italgiure.giustizia.it/sncass.
Corte Suprema di Cassazione della Repubblica Italiana (First Civil Section), December 10, 2021.

In *Angela Stergiopoulos v. Iran*, the Italian Supreme Court of Cassation held that state immunity does not bar *exequatur* proceedings against a foreign state when those proceedings seek the recognition and enforcement of a foreign judicial decision finding the state responsible for serious breaches of human rights.[1] Order 39391/2021 stems from the mass litigation by victims of the September 11 terrorist attack before the U.S. District Court for the Southern District of New York (SDNY). The Islamic Republic of Iran and a number of its instrumentalities were among the defendants, accused of facilitating the terrorists' travel to the United States and providing them safe haven after the attack.[2] After being awarded both compensatory and punitive damages by the SDNY,[3] the plaintiffs sought to recover by seizing Iranian assets in Europe. Courts in Luxembourg and the UK dismissed (or are likely to dismiss) such proceedings on state immunity grounds,[4] in keeping with the approach of the International

[1] Stergiopoulos v. Islamic Republic of Iran, Cass., Sez. I Civ., Ord. 10 dicembre 2021 n. 39391, 105 RIVISTA DI DIRITTO INTERNAZIONALE [RDI] 620 (2022) (It.), *at* https://www.italgiure.giustizia.it/xway/application/nif/clean/hc.dll?verbo=attach&db=snciv&id=./20211210/snciv@s10@a2021@n39391@tO.clean.pdf. For an early commentary and English excerpts, see INT'L L. DOMESTIC CTS. [ILDC] 3340 (reported by Mariangela La Manna). The quotations below refer to the Roman numerals used by the Court in the section of the Order laying down the reasons for the decision (*Ragioni della decisione*). Translations from the Italian are by the authors.

[2] An overview of the pertinent proceedings is available at https://iran911case.com. A detailed account of the allegations against Iran may be found in the Plaintiffs' First Memorandum in Support of Motion for Entry of Judgment, *at* https://iran911case.com/first-memo-of-law (*see especially* Section VI).

[3] On December 22, 2011, the District Court issued a default judgment finding Iran liable for all allegations brought against it. Havlish v. Bin Laden, No. 03 MDL 1570 (GBD) (SDNY 2011). The judgment on the quantification of damages was rendered on October 3, 2012. Havlish v. Bin Laden, No. 03 MDL 1570 (GBD)(FM) (SDNY 2012).

[4] *See* Stephanie Law, Vincent Richard, Edoardo Stoppioni & Martina Mantovani, *The Aftermath of the 9/11 Litigation: Enforcing the US* Havlish *Judgments in Europe* (MPILux Research Paper Series No. 1 2020), *at* https://www.mpi.lu/fileadmin/mpi/medien/research/WPS/MPILux_WP_2020_1__US-Havlish_MM_VR_SL_ES.pdf.