Decisional Privacy 2.0: the procedural requirements implicit in Article 8 ECHR and its potential impact on profiling and other data-driven decision-making processes

- **In the well-known Supreme Court case, Roe v. Wade, a woman was granted the right to abortion as part of her right to privacy and bodily integrity. In literature, the term coined for this is decisional privacy, contrasting with other forms of privacy, such as informational and locational privacy.**
- **The concept has been challenged by many, both because of its inherent vagueness and because it is unclear why making decisions should, on a theoretical level, be part of the right to privacy.**
- **This article suggests, however, that not only the American courts, but also the European Court of Human Rights has integrated decisional elements in its privacy jurisprudence.**
- **Moreover, decisional privacy not only grants citizens the right decide over personal matters in their lives, it stresses that the state has a role in facilitating the quality of the decision-making process.**
- **This is not only relevant to general privacy theory. The doctrine can also have a potential impact on the regulation of current technologies which are used to make data-driven decisions, such as profiling.**
- **When applied to data-driven processes, the rules of the European Court of Human Rights are far more strict and demanding than the rules on automatic decision-making in the General Data Protection Regulation.**

Keywords: decisional privacy; procedural fairness; automatic decision-making; profiling;

1. Introduction

In Roe v. Wade, a pregnant woman brought a class action against the laws which criminalised abortion, except on medical advice for the purpose of saving the mother's life. Justice Blackmun wrote the now famous formulation on behalf of the Supreme Court: '[t]his right of privacy, whether it be founded in the Fourteenth Amendment's concept of personal liberty and restrictions upon state action, as we feel it is, or, as the District Court determined, in the Ninth Amendment's reservation of rights to the people, is broad enough to encompass a woman's decision whether or not to terminate her pregnancy. The detriment that the State would impose upon the pregnant woman by denying this choice altogether is apparent. Specific and direct harm medically diagnosable even in early pregnancy may be involved. Maternity, or additional offspring, may force upon the woman a distressful life and future. Psychological harm may be imminent. Mental and physical health may be taxed by child care. There is also the distress, for all concerned, associated with the unwanted child, and there is the problem of bringing a child into a family already unable, psychologically and otherwise, to care for it. In other cases, as in this one, the additional difficulties and continuing stigma of unwed motherhood may be involved. All these are factors the woman and her responsible physician necessarily will consider in consultation.'[1]

[1] Roe v. Wade, 410 U.S. 113 (1973).

The fact that the Supreme Court accepted the right to abortion as part of the right to privacy was welcomed in the scholarly literature as a new branch of privacy.[2] For example, Roessler differentiates between locational privacy (the privacy of the home), informational privacy (control of personal data) and decisional privacy.[3] In addition, Zucca has identified four types of privacy: 'physical, decisional, informational, and formational. Physical privacy is a property concept. Decisional privacy concerns a person's decisions and choices about his private actions. Informational privacy refers to the control of information about oneself. Formational privacy refers to privacy as inferiority.'[4]

While traditional theories of privacy focused on privacy as a negative freedom, for example the right to be let alone[5] or not to be interfered with the privacy of one's home, other theories had already proposed to ground privacy in the right to control or the right to autonomy. Roe v. Wade opened a way to develop a form of privacy that was not only concerned with control, but also with the right to actively steer one's life and make decisions connected to personal matters.[6] For example, Floridi defines decisional privacy as 'the right to determine one's own course of actions'[7] and according to Margulis the right to decisional privacy entails 'the freedom to decide and to act in public or private as one deems appropriate'.[8] As Allen has suggested, decisional privacy has been applied in more and more cases by American courts and is no longer restricted to abortion or other issues of bodily integrity. 'The concept of decisional privacy has been relied upon in constitutional cases and in commentary on constitutional cases relating to abortion, contraception, and homosexuality. It has also arisen in connection with the right to choose one's own spouse, to rear children in accordance with one's own religious values, and to possess sexually explicit materials in one's own home.'[9]

At the same time, there has been critique on the concept of decisional privacy. First, it is often challenged on the basis of its inherent vagueness. What does it entail precisely, how does it differ from privacy as control or autonomy and does it only apply to private decisions or also decisions in public life? Second, it is often stressed that making decisions is simply not privacy. Allen recounts that 'some philosophers argue that that usage is in error. They say that decisional privacy is not a sense of privacy at all, and therefore that a defensible definition of privacy – whether of the popular "restricted access" variety or otherwise – would not embrace decisional usages. Philosophers have proposed definitions of privacy that capture many shared intuitions about paradigmatic forms of physical and/or informational, and intentionally exclude decisional conceptions of privacy. Scholars sometimes condemn the idea of decisional privacy as a colossal conceptual blunder perpetuated by the courts.'[10]

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[2] W. T. DeVries, 'Protecting Privacy in the Digital Age', 18 Berkeley Tech. L.J. 283 2003. J. Wilson, 'Is Respect for Autonomy Defensible?', Journal of Medical Ethics, Vol. 33, No. 6, 2007. A. Vedder, 'Medical Data, New Information Technologies and the Need for Normative Principles Other than Privacy Rules', Law and Medicine: Current Legal Issues Volume 3, 2000.

[3] B. Roessler, 'The value of privacy', Cambridge, Polity, 2005.

[4] L. Zucca, 'Constitutional Dilemmas: Conflicts of Fundamental Legal Rights in Europe and in the USA', Florence, March 2005, p. 151.

[5] S. D. Warren & L. D. Brandeis, 'The Right to Privacy' (1890) 4(5) Harvard Law Review.

[6] P. Ganley, 'Access to the Individual: Digital Rights Management Systems and the Intersection of Informational and Decisional Privacy Interests', International Journal of Law and Information Technology, Vol. 10 No. 3, 2002, p. 252. A. L. Allen, 'Privacy-as-Data Control: Conceptual, Practical, and Moral Limits of the Paradigm', 32 Conn. L. Rev. 861 1999-2000, p. 866.

[7] L. Floridi, 'The ethics of information', Oxford, Oxford University Press, 2013, p. 257.

[8] S. T. Margulis, 'Privacy as a Social Issue and Behavioral Concept', Journal of Social Issues, Vol. 59, No. 2, 2003, p. 244.

[9] A. L. Allen, 'Taking liberties: Privacy, Private Choice, and Social Contract Theory', 56 U. Cin. L. Rev. 461 1987-1988, p. 466.

[10] A. L. Allen , Constitutional Law and Privacy', p. 153: in: Dennis Patterson, 'A Companion to Philosophy of Law and Legal Theory', Blackwell Publishing Ltd, 2000.

Remarkably, the discussion over decisional privacy has remained focused to a large extent on Roe v. Wade and other judgements by American courts, while in Europe, the European Court of Human Rights (ECtHR) had adopted decisional elements in its privacy jurisprudence too. Delivering judgements on Article 8 of the European Convention on Human Rights (ECHR), containing the right to privacy, the ECtHR already provides protection to a wealth of interests that could be coined as elements of decisional privacy. Although the original rationale behind the right to privacy was granting the citizen negative freedom in vertical relations, that is the right to be free from arbitrary interferences by the state and although the Court still holds that the 'essential object of Article 8 is to protect the individual against arbitrary action by the public authorities',[11] the Court has gradually diverged from the original approach of the Convention authors by accepting both positive obligations for national states and granting a right to positive freedom to individuals under the right to privacy.

The element of positive liberty was adopted quite early in a case from 1976: 'For numerous Anglo-Saxon and French authors the right to respect for "private life" is the right to privacy, the right to live, as far as one wishes, protected from publicity. [H]owever, the right to respect for private life does not end there. It comprises also, to a certain degree, the right to establish and to develop relationships with other human beings, especially in the emotional field for the development and fulfillment of one's own personality.'[12] Likewise, from very early on, the Court has broken with the strictly limited focus of the authors of the Convention on negative obligations and has accepted that states may under certain circumstances be under a positive obligation to ensure respect for the Convention.[13] Consequently, while the original focus of the European Convention, in general, and the right to privacy, in particular, relied on negative obligations for states and the negative freedom of individuals, this rationale has weakened over time. The element of positive obligations for the state has brought with it that states are held, among others, to ensure adequate protection of privacy in horizontal relationships; for example, in relation to the prevention of violence and the protection of privacy in terms of data protection and family relations.[14]

Personal autonomy has become one of the core pillars of the right to privacy under the European Convention on Human Rights. For example, it has been stressed by the Court that notions of 'personal autonomy and quality of life' underpin Article 8 ECHR in the medical sphere[15] and it has held, inter alia, that 'the importance of the notion of personal autonomy to Article 8 and the need for a practical and effective interpretation of private life demand that, when a person's personal autonomy is already restricted [i.e. in medical cases], greater scrutiny be given to measures which remove the little personal autonomy that is left.'[16] In a case which regarded the involuntary sterilisation of a woman, the Court referred to the 'disregard for informed consent' and found a violation of Article 8 ECHR.[17] In similar

[11] See among others: Arvelo Apont v. the Netherlands, no. 28770/05, 3 November 2011, § 53.
[12] X. v. Iceland, no. 6825/74, 18 May 1976.
[13] A.R. Mowbray, 'The development of positive obligations under the European Convention on Human Rights by the European Court of Human Rights', Oxford, Portland, 2004. Case "Relating to certain aspects of the Laws on the Use of Languages in Education in Belgium" v. Belgium, nos. 1474/62, 1677/62, 1691/62, 1769/63, 1994/63 and 2126/64, 23 July 1968. Marckx v. Belgium, no. 6833/74, 13 June 1979. Marzari v. Italy, no. 36448/97, 4 May 1999. Monory v. Hungary, no. 71099/01, 05 April 2005.
[14] Köpke v. Germany, no. 420/07, 05 October 2010.
[15] Hristozov and others v. Bulgaria, nos. 47039/11 and 358/12, 13 November 2012.
[16] Munjaz v. the United Kingdom, no. 2913/06, 17 July 2012, § 80.
[17] N.B. v. Slovakia, no. 29518/10, 12 June 2012. I.G. a.o. v. Slovakia, no. 15966/04, 13/11/2012. V.C. v. Slovakia, no. 18968/07, 08/11/2011.

fashion, the notion of informed consent has played an important role in cases that regard the choice of the mother to get an abortion.[18]

The Court has held on numerous occasions that the right to privacy also provides protection to the full fulfilment and development of a person's identity. For example, the ECtHR has accepted that Article 8 ECHR not only provides the individual with protection of his bodily integrity, the right to privacy also guarantees the psychological and moral integrity of the person, which encompasses aspects of his physical and social identity.[19] Deriving from this notion, the Court has accepted the right of transsexuals to personal development and to physical and moral security in the full sense. It has strongly condemned European countries that did not accept the newly adopted identity and gender of transsexuals, leading to the situation in which post-operative transsexuals lived in an intermediate zone as not quite one gender or the other.[20] The Court has argued that in the absence of legal recognition of this newly adopted identity, either through a change in social appearance or through medical procedures, a 'conflict between social reality and law arises which places the transsexual in an anomalous position, in which he or she may experience feelings of vulnerability, humiliation and anxiety.'[21] Besides being able to adopt a new name reflecting the new gender, the Court has accepted that governments have a positive obligation to recognise a transsexual's new gender in official documents and official correspondence. National states need to change the gender in either the birth register or in other civil registers, among other things in order to allow transsexuals to marry a person of the opposite sex, as some European countries prohibit same sex marriages.[22]

Consequently, it seems that 'decisional privacy' is already part of the jurisprudence of the European Court of Human Rights with respect to the right to privacy.[23] Surprisingly, the literature discussing 'decisional privacy' has focussed mainly on American jurisprudence. What is more, the ECtHR, having adopted a broader approach to decisional privacy, has applied it to a wider range of cases and has asserted that decisional privacy in this sense not only entails being free to make personal decisions and choices, but that states also have a duty to assure that citizens can make meaningful decisions: for example, by granting them relevant information and different options for their choices. In addition, is has suggested that when governmental institutions make decisions that have an impact on the personal affairs of citizens, decisional privacy means that the persons affected should be involved in the decision-making process and that that process must be fair and adequate. Consequently, this form of decisional privacy goes much further than merely allowing citizens to make personal choices and may be coined decisional privacy 2.0.

The starting point of this new concept was that the ECtHR accepted that there are procedural requirements implicit in Article 8 ECHR, which holds: '1. Everyone has the right to respect for his private and family life, his home and his correspondence. 2. There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.' It does so without referring to other articles in the European Convention on Human Rights which are explicitly concerned with procedural rights, such as the right to a

[18] See among others: P. and S. v. Poland, no. 57375/08, 56 May 2011. Bosso v. Italy, no. 50490/99, 05 September 2002. Brüggemann and Scheuten v. Germany, no. 6959/75, 19 May 1976.
[19] X. and Y. v. the Netherlands, no. 8978/80, 26 March 1985.
[20] Goodwin v. the United Kingdom, no. 28957/95, 11 July 2002. B. v. France, no. 13343/87, 25 March 1992.
[21] I v. the United Kingdom, no. 25680/94, 11 July 2002, § 57.
[22] Schalk and Kopf v. Austria, no. 30141/04, 24 June 2010.
[23] B. van der Sloot, 'Privacy as human flourishing: Could a shift towards virtue ethics strengthen privacy protection in the age of Big Data?', JIPITEC, 2014-3.

fair trial (Article 6 ECHR), the right to an effective remedy (Article 13 ECHR) and freedom from discriminatory decisions (Article 14 ECHR). Gradually, this approach has been expanded and has grown into a doctrine of its own.

This article will discuss the origins of this approach by the European Court of Human Rights, namely in cases that regard disputes between parents over the custody of their child, regarding parents who claim that they have been wrongfully deprived of their parental authority and in cases in which parents claim that their children have been wrongfully placed out of home in violation of their right to family life, as guaranteed under Article 8 ECHR (section 2). Further, it will be shown that the decisional approach to privacy is now applied to almost all elements of privacy as protected under the European Convention on Human Rights and has begotten a broader meaning (section 3). Finally, it will be argued that the approach to decisional privacy by the Court might have an impact on the regulation of current technologies, such as profiling (section 4).[24] Consequently, it makes an analogy between non-data driven decision-making processes, discussed in sections 2 and 3, in order apply the principles and safeguards to data driven decision-making processes. It suggests that although the General Data Protection Regulation may have too weak and limited rules to curb the pandemic of profiling, the rules as set forth by the ECtHR, when applied to data driven decision-making processes, may have a real and significant regulatory effect.

2. The dawn of a new concept

The European Convention on Human Rights in principle only applies to so-called vertical relationships, that is between citizens and states. Citizens can only file a complaint about the actions or inactions of a state, and not about the wrongdoing of another citizen or legal entity. However, the Court has applied the human rights contained in the Convention to horizontal relationships, for example when a citizen complains that a state has not protected his privacy against infringements by fellow citizens. What is more, the ECtHR has stressed that national governments have a positive obligation to ensure that the right to privacy and other human rights are not only respected by itself, but also by citizens and legal entities.[25] At the same time, the European Court of Human Rights will not act as a court of fourth instance (the first three instances being the trial court, the appellate court and the supreme court on a national level), meaning that it will not re-evaluate the whole case on facts and merits in substance, but will only evaluate if certain minimum standards of human dignity have been trampled.[26] This approach creates a tension in cases in which the right to privacy essentially plays a role between two or more citizens. A typical example may be found in custody cases. The problem which the ECtHR faces here is that it cannot grant far-reaching substantive rights to parents, but still chooses to assess whether the process of awarding custody on a national level has respected the minimum principles of fair process.

The Court has been faced by claims from for example, unwed parents, who feel that they are disadvantaged in comparison to legally wed couples, from fathers who feel that the national courts display a bias towards affording the mother custody after divorce and from parents of legally adopted children, who feel that their position is weaker than that of biological parents.[27] Moreover, the Court has accepted claims by parents who claim that they

[24] The cases discussed in this article can be found through the Court's database (HUDOC) by searching under Article 8 ECHR on the terms "procedural requirements implicit" and "decision-making process".
[25] A. R. Mowbray, 'The Development of Positive Obligations under the European Convention on Human Rights by the European Court of Human Rights', Portland, 2004.
[26] < http://www.echr.coe.int/Documents/Guide_ECHR_lawyers_ENG.pdf>.
[27] See further: J. Nozawa, 'Drawing the Line: Same-sex adoption and the jurisprudence of the ECtHR on the application of the "European consensus" standard under Article 14', Utrecht Journal of International and

have been wrongfully deprived of their parental authority or that their children have been wrongfully placed out of home.[28] In these types of cases, the Court has developed a new doctrine, namely of procedural rights being implicit in the right to privacy. The first case in which this new approach was looming was in S.K. v. the United Kingdom (1986), in which a father claimed that he was first denied access to his child when the child was taken into public care and thereafter granted only limited access.

In particular, he argued that he was unable to participate adequately in the care proceedings before the Juvenile Court and was not consulted by the local authority in the decision-making process concerning the future of his child. He finally complained that there were no effective and timely remedies open to him against these matters. In particular, he believed that he was discriminated against contrary to Article 14 ECHR either on the grounds of his sex, or on the ground of his unmarried status, or both. The former European Commission on Human Rights (the Commission or ECmHR), in its decision on the admissibility of the case, found it established that 'family life' protected by Article 8 of the Convention existed between the applicant and the child [T] prior to its being taken into public care. 'In these circumstances the Commission finds the question whether the local authority failed to show respect to the applicant's family life with T, and whether any interference therewith, arising from the limitation of access and of the applicant's involvement in the decision-making process concerning T's future, was justified under Article 8 para. 2 (Art. 8-2) of the Convention raises difficult issues of fact and law, which are of such complexity that their determination should depend upon a full examination of the merits.'[29]

The explicit inclusion of procedural requirements under Article 8 ECHR by the ECtHR came in three parallel decisions, all regarding similar matters and issued on the same date, namely B. v. the United Kingdom (1987), R. v. the United Kingdom (1987)[30] and W. v. the United Kingdom (1987).[31] Even before assessing those cases in substance, the Court remarked regarding the scope of the issues before it that the 'background to the instant case is constituted by certain judicial or local authority decisions regarding the applicant's child S. The Court finds it important to emphasise at the outset that the present judgment is not concerned with the merits of those decisions; this issue was not raised by the applicant before the Commission and did not form part of the application which it declared admissible. Since the Commission's admissibility decision delimits the compass of the case brought before the Court, the latter is not in the circumstances competent to examine or comment on the justification for such matters as the taking into public care or the adoption of the child or the restriction or termination of the applicant's access to him.'[32]

The Court also assessed these cases under the scope of Article 6 ECHR and found a violation, but first and foremost assessed the complaint under the scope of the right to privacy, in relation to the procedures followed by the national authorities in reaching its decisions to restrict and terminate the applicants' access to their child, to the absence of remedies against those decisions and to the authority's failure to ensure appropriate access during a social workers' strike. In its general principles, the Court referred to the fact that although the essential object of Article 8 is to protect the individual against arbitrary interference by the

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European Law, 2013, 29(77). See also: B., R. and J. v. the Federal Republic of Germany, no. 9639/82, 15 March 1984.

[28] A. Daly, 'The right of children to be heard in civil proceedings and the emerging law of the European Court of Human Rights', The International Journal of Human Rights, 2011, 15:3.

[29] K. v. the United Kingdom, no. 11468/85, 15 October 1986. Sahin v. Germany, no. 30943/96, 08 July 2003. Sommerfeld v. Germany, no. 31871/96, 08 July 2003.

[30] R. v. The United Kingdom, no. 10496/83, 8 July 1987. P. Prior, 'Removing children from the care of adults with diagnosed mental illnesses — a clash of human rights?', European Journal of Social Work, 2003, 6:2.

[31] W. v. The United Kingdom, no. 9749/82, 8 July 1987.

[32] B. v. the United Kingdom, no. 9840/82, 08 July 1987, § 58.

public authorities, there may in addition be positive obligations inherent in an effective respect for family life. The Court recognised that local authorities are faced with a task that is extremely difficult and it would only add to their problems to require them to follow on each occasion an inflexible procedure. Still, it emphasised that the decision in the type of cases before it may well prove to be irreversible as where a child has been taken away from his parents and placed with alternative caretakers, he may in the course of time establish with them new bonds which it might not be in his interests to break by reversing a previous decision to restrict or terminate parental access to him.

The Court then turned to its principal consideration: 'It is true that Article 8 contains no explicit procedural requirements, but this is not conclusive of the matter. The local authority's decision-making process clearly cannot be devoid of influence on the substance of the decision, notably by ensuring that it is based on the relevant considerations and is not one-sided and, hence, neither is nor appears to be arbitrary. Accordingly, the Court is entitled to have regard to that process to determine whether it has been conducted in a manner that, in all the circumstances, is fair and affords due respect to the interests protected by Article 8. Moreover, the Court observes that the English courts can examine, on an application for judicial review of a decision of a local authority, the question whether it has acted fairly in the exercise of a legal power. The relevant considerations to be weighed by a local authority in reaching decisions on children in its care must perforce include the views and interests of the natural parents. The decision-making process must therefore, in the Court's view, be such as to secure that their views and interests are made known to and duly taken into account by the local authority and that they are able to exercise in due time any remedies available to them.'[33]

The Court found a violation of the right to privacy because the applicants were not involved sufficiently with the decision-making process. In subsequent case law, the Court has built on this doctrine. Already in Price v. the United Kingdom (1988), although stressing that the difference in nature of this relationship will normally not require a local authority to consult or involve them in the decision-making process to such a degree as in the case of natural parents, the Commission did rely on the procedural requirements in reference to the decision-making process regarding the grandchildren of the applicants.[34] In Boyle v. the United Kingdom (1993), this was extrapolated to a child's uncle, who complained about the fact that he could not see the child and of his inability to bring the matter of access before the national courts. The Commission considered that in this case, where the local authorities taking care of the child and the child's family were on such bad terms that any form of consultation process, among others regarding the request to access the child, was thereby rendered nugatory, access to a court was pivotal. The Commission considered it unnecessary 'to decide whether a court alone could provide the necessary forum or mechanism for obtaining an objective and meaningful review of the applicant's requests as to access and his complaints as to the approach taken by those acting on behalf of the local authority. It finds that the absence of such a forum or mechanism in the present case discloses a fundamental shortcoming since the applicant as a result was not involved in the decision-making procedure to the degree sufficient to provide him with the requisite protection of his interest.'[35]

In McMichael v. the United Kingdom (1993), the Commission found a violation of Article 8 ECHR as the applicants had no sight of reports and documents which were relevant to the proceedings regarding the taking into care of their child and which contained matters at least indirectly relating to the welfare of their child and their own capacities in that respect. It

[33] B. v. The United Kingdom, no. 9840/82, 8 July 1987, § 63-64.
[34] Angela and Rodney Price v. the United Kingdom, no. 12402/86, 09 March 1988. See also: Lawlor v. the United Kingdom, no. 12763/87, 14 July 1988.
[35] Boyle v. the United Kingdom, no. 16580/90, 09 June 1993.

found that ‘the procedure whereby the confidential reports and other documents, which were before the Children' Hearings when they took decisions relating to A. [the child] and the applicants' relationship with him, were not disclosed to the applicants, failed to afford them the requisite protection of their interests.’[36] The ECtHR (1995) affirmed this view and also responded to the Government’s suggestion that procedural fairness should be assessed under the right to a fair trial (Article 6 ECHR) rather than the right to privacy, by pointing ‘to the difference in the nature of the interests protected by Articles 6 para. 1 and 8. Thus, Article 6 para. 1 affords a procedural safeguard, namely the "right to a court" in the determination of one’s "civil rights and obligations"; whereas not only does the procedural requirement inherent in Article 8 cover administrative procedures as well as judicial proceedings, but it is ancillary to the wider purpose of ensuring proper respect for, inter alia, family life.’[37]

To provide a final example, in TP and KM v. the United Kingdom (1998),[38] the Commission continued to build on the doctrine of decisional fairness with regard to parents that were faced with serious allegations relating to abuse or other ill-treatment of their children. It emphasised the importance of full information as to the factual basis of these allegations and stressed the essential element of time in these cases. The Commission underlined that it is not the parents’ responsibility to investigate the reliability of purported evidence relied on by local authorities or litigate to obtain such information but considered that the authorities should, from an early stage and as soon as practically possible, provide for the material to be viewed and it emphasised that in particular, where the material concerned is used to justify an emergency measure of removal, a delay of more than a year in such material being made available is unjustifiable.

It is unnecessary to discuss every case in which the procedural requirements were invoked and accepted,[39] but especially after 2000, the European Court of Human Rights has increasingly relied on these principles in custody cases, matters regarding the upbringing of children, the placing out of home of children or signing them up for adoption. What is clear from the jurisprudence is that a number of elements must be guaranteed in the decision-making process. The persons affected must be informed about the decision-making process at an early stage, the decision-making process must be based on relevant and adequate information, the persons must have access to all relevant documents, must be involved in the decision-making process in a meaningful way, must be heard and must have an influence on the decision whenever that is possible, the decision-making process must be timely, the persons affected must have a right to challenge assertions, must be allowed to request second opinions and have a right to legal representation, the decisions must be comprehensible and fair and there must be a way to challenge the decisions before another legal body.[40]

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[36] McMichael v. the United Kingdom, no. 16424/90, 31 August 1993.

[37] McMichael v. the United Kingdom, no. 16424/90, 24 June 1995, § 91. See further: K. Reid, ‘Child care cases and the European Convention on Human Rights’, Child and Family Law Quartely, Vol 5, No 2, 1993.

[38] T.P. and K.M. v. the United Kingdom, no. 28945/95, 26 May 1998. See further: T.P. and K.M. v. the United Kingdom, no. 28945/95, 10 May 2001.

[39] Ignaccolo-Zenide v. Romania, no. 31679/96, 25 January 2000.

[40] Elsholz v. Germany, no. 25735/94, 13 July 2000. Buchberger v. Austria, no. 32899/96, 20 December 2001. P., C. and S. v. the United Kingdom, no. 56547/00, 16 July 2002. See further: J. Duerden, ‘Open dialogue. The European Court of Human Rights and removal at birth’, British Journal Of Midwifery, 2003, 11(5). Venema v. the Netherlands, no. 35731/97, 17 December 2002. Kosmopoulou v. Greece, no. 60457/00, 05 February 2004. Haase v. Germany, no. 11057/02, 08 April 2004. C. v. Finland, no. 18249/02, 09 May 2006. Moser v. Austria, no. 12643/02, 21 September 2006. Kaplan v. Austria, no. 45983/99, 18 January 2007. X. v. Croatia, no. 11223/04, 17 July 2008. Jucius and Juciuviene v. Lithania, no. 14414/03, 25 November 2008. Saviny v. Ukraine, no. 39948/06, 18 December 2008. A.D. and O.D. v. the United Kingdom, no. 28680/06, 16 March 2010. See further: K. Holt & N. Kelly, ‘Rhetoric and reality surrounding care proceedings: family justice under strain’, Journal of Social Welfare and Family Law, 34:2, 2112. Mustafa and Akin v. Turkey, no. 4694/03, 06 April 2010. Kurochkin v. Ukraine, no. 42276/08, 20 May 2010. Anayo v. Germany, no. 20578/07, 21 December 2010.

Consequently, citizens not only have a right to control and decide over personal matters, whenever governmental bodies make a decision that affects them, the decision-making process must be fair and adequate.

3. Decisional privacy as comprehensive doctrine under the right to privacy

Although the basis of the decisional privacy elements in the jurisprudence of the ECtHR may be found in matters concerning custody and other family matters, gradually, the court has applied it to almost every element of privacy as protected under Article 8 ECHR. For example, the decisional elements of the right to privacy have played an important role with respect to legal abortion. There is an important point to be made here; while the cases discussed previously concern matters in which procedural elements where applied to decisions by governmental bodies, the elements of procedural fairness are also applied to cases in which citizens want to exert their decisional privacy themselves. The ECtHR argues that the state has a role in facilitating this decisional right. The ECtHR, in Tysiac v. Poland (2007),[41] found an infringement of the right to privacy because there was no adequate procedural framework in place for the resolution of requests to legal abortion, for the obtaining of independent advice and second opinions. Similarly, in A., B. and C. v. Ireland (2010),[42] the Court established a violation under the right to privacy, because neither the medical consultation nor litigation options relied on by the government constituted effective and accessible procedures which allowed the applicant to establish her right to a lawful abortion in Ireland. In R.R. v. Poland (2011),[43] the European Court of Human Rights took it one step further and found a violation of the right to privacy under the European Convention on Human Rights because the applicant was unable to obtain a diagnosis of the foetus' condition, established with the requisite certainty, by genetic tests within the time-limit for abortion to remain a lawful option for her. A final example may be found in P. and S. v. Poland (2012), in which the Court observed that effective access to reliable information on the conditions for the availability of lawful abortion, and the relevant procedures to be followed, was directly relevant for the exercise of personal autonomy under Article 8 ECHR.[44]

In other fields related to the right to privacy,[45] the Court has both accepted that the decisions taken by governmental institutions that affect citizens must be fair and adequate and that citizens must be facilitated in exercising their own right to decisional privacy: for example, by providing them with relevant information.[46] Inter alia, the ECtHR has used these approaches with regard to immigrants that are expelled or extradited, specifying that they have the right to be heard and take part in their own proceedings and that the decisions must

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Schneider v. Germany, no. 17080/07, 15 September 2011. Kopf and Liberda v. Austria, no. 1598/06, 17 January 2012. Karrer v. Romania, no. 16965/10, 21 February 2012. Stromblad v. Sweden, no. 3684/07, 05 April 2012. M.D. and others v. Malta, no. 64791/10, 17 July 2012. A.K. and L. v. Croatia, no. 37956/11, 08 January 2013. ECtHR, B.B. and F.B. v. Germany, appl.nos. 18734/09 and 9424/11, 14 March 2013.

[41] Tysiac v. Poland, no. 5410/03, 20 March 2007.

[42] A., B. and C. v. Ireland, no. 25579/05, 16 December 2010. S. MCGuinness, 'A, B, and C leads to D (For Delegation!) A, B and C v. Ireland 25579/05 [2010] ECHR 2032', Medical Law Review, 2011, 19.

[43] R.R. v. Poland , no. 27617/04, 26 May 2011.

[44] P. and S. v. Poland, no. 57375/08, 30 October 2012, § 111.

[45] Rogl v. Germany, no. 28319/95, 20 May 1996.

[46] The Court has also applied its procedural standards under Article 8 ECHR to cases which regard maintaining the safety of the community through criminal law proceedings. See among others: Turek v. Slovakia, no. 57986/00, 14 February 2006. Kvasnica v. Slovakia, no. 72094/01, 09 June 2009. Moreover, it has also applied its findings to cases in which applicants claimed a violation of, among others, their reputation, and the protection of their personal data. See among others: Z. v. Finland, no. 22009/93, 28 February 1995. Z. v. Finland, no. 22009/93, 25 February 1997.

accord to adequacy, fairness and expediency.[47] In addition, it has also adopted similar principles to cases in which minorities claim special protection for their cultural and social living environment, for example in relation to Gypsies and Roma who want to live in mobile homes.[48] Reference can also be made to the protection of the home and other economic concerns that are provided protection under the right to privacy.[49] And the Court has applied the procedural safeguards implicit in Article 8 ECHR more and more to general medical issues, such as in Glass v. the United Kingdom (2004),[50] where the mother of a severely handicapped child acted as the child's legal representative and firmly opposed the administration of diamorphine to her child, while the decision to override her objection was done in the absence of authorisation by a court. In V. C. v. Slovakia (2011), the applicant was sterilised without her full and informed consent, in obvious violation of Article 8 ECHR.[51] And in B. v. Romania (2013),[52] the decision-making process was found unfair and inadequate because the applicant was not fully informed of and involved with the decision to place her in a psychiatric institution.

Likewise, elements of decisional privacy are applied to cases regarding physical and psychological health, among others in relation to establishing the legal capacity of a person. For example, in Shtukaturov v. Russia (2008),[53] in violation of Article 8 ECHR, the applicant did not take part in the court proceedings regarding his legal capacity and was not even examined by the judge in person. Subsequently, the applicant was unable to challenge the judgment, since a re-examination was refused on appeal and the only hearing on the merits in the applicant's case lasted ten minutes.[54] In Sýkora v. the Czech Republic (2012),[55] the applicant was not aware of the decision to deprive him of legal capacity and moreover, this

[47] Cliz v. the Netherlands, no. 29192/95, 11 July 2000. M. Baros, 'A developing gap in the application of articles 5 and 8 of the European Convention on Human Rights in the immigration context - the shifting nature of humanity', J.I.A.N.L., 2009, 264. Sezen v. the Netherlands, no. 50252/99, 31 January 2006. Hunt v. Ukraine, no. 31111/04, 07 December 2006. Carlson v. Switzerland, no. 49492/06, 06 November 2008. See also: Neulinger and Shuruk v. Switzerland, no. 41615/07, 06 July 2010. Alim v. Russia, no. 39417/07, 27 September 2011. See further: T. Haugli & E. Shinkareva, 'The Best Interests of the Child Versus Public Safety Interests: State Interference into Family Life And Separation of Parents and Children in Connection with Expulsion/Deportation in Norwegian and Russian Law', International Journal of Law, Policy and the Family 2012, 26(3). Liu v. Russia (no. 2), no. 29157/09, 26 July 2011. X. v. Latvia, no. 27853/09, 26 November 2013.

[48] Buckley v. the United Kingdom, no. 20348/92, 25 September 1996. See further: D. Farget, 'Defining Roma Identity in the European Court of Human Rights', International Journal On Minority & Group Rights, 2012, 19(3). Beard v. the United Kingdom, no. 24882/94, 18 January 2001. Chapman v. the United Kingdom, no. 27238/95, 18 January 2001. See further: Y. Donders, 'Do cultural diversity and human rights make a good match?', International Social Science Journal, Volume 61, Issue 199, 2010. Coster v. the United Kingdom, no. 24876/94, 18 January 2001. Lee v. the United Kingdom, no. 25289/94, 18 January 2001. Jane Smith v. the United Kingdom, no. 25154/94, 18 January 2001. Connors v. the United Kingdom, no. 66746/01, 27 May 2004, § 94. McCann v. the United Kingdom, no. 19009/04, 13 May 2008, § 53. Yordanova and others v. Bulgaria, no. 25446/06, 24 April 2012. Buckland v. the United Kingdom, no. 40060/08, 18 September 2012. S. Nield & N. Hopkins, 'Human rights and mortgage repossession: beyond property law using Article 8', Legal Studies, 2013, 33(3). See also: Ciubotaru v. Moldova, no. 27138/04, 27 April 2010.

[49] Cosic v. Croatia, no. 28261/06, 15 January 2009. Paulic v. Croatia, no. 3572/06, 22 October 2009. Zehentner v. Austria, no. 20082/02, 16 July 2009, § 64-65. Kay and others v. the United Kingdom, no. 37341/06, 21 September 2010. Kryvitska and Kryvitskyy v. Ukraine, no. 30856/03, 02 December 2010. Igor Vasilchenko v. Russia, no. 6571/04, 03 February 2011, § 84-85. Orlic v. Croatia, no. 48833/07, 21 June 2011. Bjedov v. Croatia, no. 42150/09, 29 May 2012. Brezec v. Croatia, no. 7177/10, 18 July 2013. Rousk v. Sweden, no. 27183/04, 25 July 2013. Škrtić v. Croatia, no. 64982/12, 05 December 2013.

[50] Glass v. the United Kingdom, no. 61827/00, 09 March 2004. See further: A. Perera, 'Can I Decide Please? The State of Children's Consent in the UK', European Journal Of Health Law, 2008, 15(4).

[51] V.C. v. Slovakia, no. 18968/07, 08 November 2011, § 144-145

[52] B. v. Romania (no. 2), no. 1285/03, 19 June 2013.

[53] Shtukaturov v. Russia, no. 44009/05, 27 March 2008.

[54] See also: Salontaji-Drobnjak v. Serbia, no. 36500/05, 13 October 2009, § 141-143.

[55] Sýkora v. the Czech Republic, no. 23419/07, 22 November 2012.

decision was based only on the opinion of an expert who last examined the applicant six years earlier. In Lashin v. Russia (2013), the applicant was unable to have his legal incapacity reviewed and was rejected a claim to restore legal capacity by a court, without seeking the advice of fresh and independent experts. The ECtHR stressed, inter alia, that procedural fairness required that 'where the opinion of an expert is likely to play a decisive role in the proceedings, as in the case at hand, the expert's neutrality becomes an important requirement which should be given due consideration.'[56]

To provide a final example of the width of the element of decisional privacy in the jurisprudence on Article 8 ECHR, reference can be made to the fact that the Court has transposed this doctrine to environmental cases and the right to enjoy a clean and healthy living environment.[57] In Guerra and others v. Italy (1998), the ECtHR held that the applicant must be involved in the decision-making processes, that he must have access to full and comprehensive information and that the government should actively inform citizens of existing environmental threats, as part of the applicant's right to decisional privacy.[58] In Hatton and others v. the United Kingdom (2003),[59] regarding noise pollution caused by an airport, the European Court of Human Rights stressed that the governmental decision-making process concerning complex issues of environmental and economic policy must necessarily involve appropriate investigations and studies in order to allow them to strike a fair balance between the various conflicting interests at stake. In Taskin and others v. Turkey (2004), the Court again primarily focussed on the procedural aspects of the case and found that the national court's judgment to close the operation of a gold mine was not effectuated within reasonable time and the Court emphasised that where 'administrative authorities refuse or fail to comply, or even delay doing so, the guarantees enjoyed by a litigant during the judicial phase of the proceedings are rendered devoid of purpose.'[60]

In Giacomelli v. Italy (2006), the Court noted at the outset that neither the decision to grant an operating licence for a plant nor the decision to authorise it to treat industrial waste by means of detoxification was preceded by an appropriate investigation or study. Subsequently, the authorities refused to enforce judicial decisions in which the activities in issue had been found to be unlawful, thereby rendering inoperative the procedural safeguards previously available to the applicant and breaching the principle of the rule of law. 'It considers that the procedural machinery provided for in domestic law for the protection of individual rights, in particular the obligation to conduct an environmental-impact assessment prior to any project with potentially harmful environmental consequences and the possibility for any citizens concerned to participate in the licensing procedure and to submit their own observations to the judicial authorities and, where appropriate, obtain an order for the suspension of a dangerous activity, were deprived of useful effect in the instant case for a very long period.'[61] And to conclude, in Grimkovskaya v. Ukraine (2011), the Court attached

[56] Lashin v. Russia, no. 33117/02, 22 January 2013, § 87.
[57] R. Desgagne, 'Integrating environmental values into the European Convention on Human Rights', the American Journal of International Law, 1995. S. F. Leroy, 'Can the Human Rights Bodies be Used to Produce Interim Measures to Protect Environment-Related Human Rights?', Review of European Community & International Environmental Law, Volume 15, Issue 1, 2006.
[58] Guerra and others v. Italy, no. 14967/89, 19 February 1998. See further: D. Papadopoulou, 'Environmental Calamities and the Right to Life: State Omissions and Negligence Under Scrutiny', Environmental Law Review: 2006, Vol. 8, No. 1. M. Fitzmaurice, 'The European Court of Human Rights, Environmental Damage and the Applicability of Article 8 of the European Convention on Human Rights and Fundamental Freedoms', 13 Envtl. L. Rev. 107, 2011.
[59] Hatton and others v. the United Kingdom, no. 36022/97, 08 July 2003. R. K. M. Smith, 'Hatton v. United Kingdom. App. No. 36022/97', the American Journal of International Law, Vol. 96, No. 3, 2002.
[60] Taskin and others v. Turkey, no. 46117/99, 10 November 2004, § 124.
[61] Giacomelli v. Italy, no. 59909/00, 02 November 2006, § 94. See also: Dubetska and others v. Ukraine, no. 30499/03, 10 February 2011.

importance to the following factors. 'First, the Government's failure to show that the decision to designate K. Street as part of the M04 motorway was preceded by an adequate environmental feasibility study and followed by the enactment of a reasonable environmental management policy. Second, the Government did not show that the applicant had a meaningful opportunity to contribute to the related decision-making processes, including by challenging the municipal policies before an independent authority.'[62]

4. Analysis

The rules and principles discussed in sections 2 and 3 may have a big impact on data driven decision-making processes such as profiling, and there is no obvious reason why these principles would not apply in the realm of data protection. The Court has accepted matters under the right to privacy that originally did not fall under the scope of Article 8 ECHR *ratione materiae*, such as environmental rights, cultural rights and privacy matters in horizontal relationships. Relying on decisional elements in those cases has facilitated this approach. The procedural requirements under Article 8 ECHR seem to serve as a compromise between accepting fully-fledged rights and freedoms under the Convention and denying hose claims all together. By accepting the procedural requirements, the Court has tried to find a way to provide protection to applicants for their reasonable claims, without granting them substantive rights, in which it would have to provide protection to a host of peripheral rights and freedoms. Although this doctrine may have been introduced in order to avoid a further inflation of the right to privacy, gradually, the element of decisional privacy seems to have developed into an independent doctrine, that may take two forms.

First, when citizens want to take decisions that affect their lives or their personality, they not only have a right to be free from governmental interference, such as was accepted in the Roe v Wade case and other judgements by American courts. Under the right to privacy as protected under the European Convention on Human Rights, to which 47 European countries are subjected, governments also have an obligation to facilitate the decision making process by citizens, for example, by providing them with relevant information, or, with regard to abortion, by allowing them to test the fetus on potential diseases. Second, when citizens are affected by the decisions taken by governmental bodies, they have a number of procedural rights: citizens must be informed about the decision-making process at an early stage, the decision-making process must be based on relevant and adequate information, the persons must have access to the relevant documents, must be involved in the decision-making process, must be heard and must have an influence on the decision whenever that is possible, the decision-making process must be timely, the persons affected must have a right to challenge assertions, must be allowed to request second opinions, the experts being heard must be neutral and objective, the decisions must be comprehensible and fair and it must be possible to appeal the decisions.

Both elements go further than the original approach to decisional privacy, which was mostly about a prohibition to interfere with the personal decisions of citizens, such as regarding abortion. Like the American courts, the ECtHR has since long accepted that the right to privacy includes a right to take autonomous decisions that relate to personal and private matters, such as those in the medical and sexual realm.[63] The first form of decisional privacy 2.0 as recognised by the European Court of Human Rights suggests that there is not only the right to autonomous decisions over such issues as abortion, but that states also have

[62] Grimkovskaya v. Ukraine, no. 38182/03, 21 July 2011, § 72-73. See further: Vilnes and others v. Norway, nos. 52806/09 and 22703/10, 05 December 2013, § 244.

[63] B. van der Sloot, 'Privacy as human flourishing: Could a shift towards virtue ethics strengthen privacy protection in the age of Big Data?', JIPITEC, 2014-3.

an obligation to ensure that these rights can be enjoyed in a meaningful way. The second form of decisional privacy 2.0 under the European Convention on Human Rights concerns the decisions taken by governmental institutions that affect citizens.

This new approach to decisional privacy not only has theoretical implications, it may also have an important practical impact. It goes beyond the scope and purpose of this article to provide a full account of potential practical implications, but one example would be the regulation of new data processing technologies, such as profiling. Obviously, EU data protection law includes many other provisions which are about decisions, even though they do not include the word as such. But the regulation of automatic decision-making also explicitly aims at providing the data subject control over and influence on the decisions taken that affect him significantly. The critique has been that this provision fails to realise this goal. That is why this doctrine is a good case study to analyse what practical impact the jurisprudence of the European Court of Human Rights might have.

As is well known, under the European Union's Data Protection Directive (Directive 95/46 EC), Article 15 specifies: '1. Member States shall grant the right to every person not to be subject to a decision which produces legal effects concerning him or significantly affects him and which is based solely on automated processing of data intended to evaluate certain personal aspects relating to him, such as his performance at work, creditworthiness, reliability, conduct, etc. 2. Subject to the other Articles of this Directive, Member States shall provide that a person may be subjected to a decision of the kind referred to in paragraph 1 if that decision: (a) is taken in the course of the entering into or performance of a contract, provided the request for the entering into or the performance of the contract, lodged by the data subject, has been satisfied or that there are suitable measures to safeguard his legitimate interests, such as arrangements allowing him to put his point of view; or (b) is authorized by a law which also lays down measures to safeguard the data subject's legitimate interests.'[64] In addition, article 12 stresses: 'Member States shall guarantee every data subject the right to obtain from the controller: (a) without constraint at reasonable intervals and without excessive delay or expense: [] - knowledge of the logic involved in any automatic processing of data concerning him at least in the case of the automated decisions referred to in Article 15 (1);'.[65]

This doctrine has been criticised by commentators as being too narrow.[66] For example, Hildebrandt suggests: 'The problem with Article 15 (and Article 12) is threefold.35 Firstly, many decisions taken on the basis of profiling require some form of human intervention, even if routine, in which case Article 15 is no longer applicable. Second, paragraph 2 of Article 15 provides two grounds for lawful application of decisions based on automated processing of data, severely restricting the applicability. Third, because even if the law attributes such rights of transparency and the right to resist automated decision-making, these rights remain paper dragons as long as we lack the means to become aware of being profiled. If we do not know that we are being categorised on the basis of a match with a group profile that was not derived from our personal data, how should we contest decisions regarding insurance, credit rating, employment, health care?'[67] In similar vein, Bygrave has written: 'At first glance, Art. 15 shows much promise in terms of providing a counterweight to fully automated profiling practices. On closer analysis, however, we find that this promise is tarnished by the complexity and numerous ambiguities in the way the provisions of Art. 15 are formulated.

[64] Article 15 Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data [Data Protection Directive].
[65] Article 12 Data Protection Directive.
[66] See also: B. W. Schermer, 'The limits of privacy in automated profiling and data mining', Computer Law & Security Review 27, 2011.
[67] M. Hildebrandt, 'Who is Profiling Who? Invisible Visibility', p. 248. In S. Gutwirth et al. (eds), 'Reinventing Data Protection', Springer, Heidelberg, 2009.

These problems are exacerbated by a paucity of authoritative guidance on the provisions' scope and application. The efficacy of Art. 15 as a regulatory tool is further reduced by the fact that its application is contingent upon a large number of conditions being satisfied; if one of these conditions is not met, the right in Art. 15(1) does not apply. As such, the right in Art. 15(1) resembles a house of cards.'[68]

Next to these critical comments, the right to resist profiling under the Data Protection Directive has been critiqued because it does not go far enough and does not adequately address the many challenges that arise when profiling and automatic decision-making are an integral part of Big Data processes,[69] quantified self services[70] and smart applications.[71] Profiling is not only used by internet companies to personalise advertisements, search results and news items,[72] it is increasingly relied on by banks when affording loans,[73] by health insurers when accepting new clients[74] and by the police when fighting crime or terrorism.[75] Given the fact that profiling is increasingly part of a range of relevant decision-making processes, commentators have suggested that legal protection should go further than merely allowing citizens a peak insight the black box[76] of algorithmic decision-making or a right to resits profiling in which there has been no human involvement. Because profiling is so important to the daily lives and activities of citizens, it has been suggested that they should have an active right in steering the decision-making process or to partake in it.[77] The hope was that the General Data Protection Regulation (GDPR),[78] which has been adopted in 2016 and will come into effect in 2018, repealing the current Data Protection Directive, would adress some or all of these concerns. However, it has remained largely the same.

Article 22 of the GDPR specifies: '1. The data subject shall have the right not to be subject to a decision based solely on automated processing, including profiling, which produces legal effects concerning him or her or similarly significantly affects him or her. 2. Paragraph 1 shall not apply if the decision: (a) is necessary for entering into, or performance of, a contract between the data subject and a data controller; (b) is authorised by Union or Member State law to which the controller is subject and which also lays down suitable measures to safeguard the data subject's rights and freedoms and legitimate interests; or (c) is based on the data subject's explicit consent. 3. In the cases referred to in points (a) and (c) of paragraph 2, the data controller shall implement suitable measures to safeguard the data subject's rights and freedoms and legitimate interests, at least the right to obtain human

[68] Lee A. Bygrave, 'Minding the Machine: Article 15 of the EC Data Protection Directive and Automated Profiling', Computer Law & Security Report, 2001, volume 17, 23.
[69] B. van der Sloot & D. Broeders & E. Schrijvers (eds.), 'Exploring the boundaries of Big Data', Amsterdam University Press, Amsterdam 2016.
[70] M. Lanzing, 'The transparent self', Ethics and Information Technology, Volume 18, Issue 1, 2016.
[71] T.H.A. Wisman, 'Purpose and fuction creep by design: Transforming the face of surveillance through the Internet of Things', European Journal of Law and Technology, 2013 (2):3.
[72] F. J. Zuiderveen Borgesius, 'Singling Out People without Knowing Their Names - Behavioural targeting, pseudonymous data, and the new Data Protection Regulation', Computer Law & Security Review, 32(2), 2016.
[73] D. Skillicorn, 'Knowledge Discovery for Counterterrorism and Law Enforcement', Boca Raton: Taylor & Francis Group, LLC., 2009.
[74] G.D. Squires, 'Racial profiling, insurance style: Insurance redlining and the uneven development of metropolitan areas', Journal of Urban Affairs 25(4), 2003.
[75] B. Custers, T. Calders, B. Schermer & T. Zarsky (eds.), 'Discrimination and Privacy in the Information Society', Springer, Heidelberg 2013.
[76] F. Pasquale, 'The Black Box Society: The Secret Algorithms that Control Money and Information', Harvard University Press, 2015.
[77] M. Hildebrandt & K. De Vries. Privacy, 'Due Process and the Computational Turn. The Philosophy of Law Meets the Philosophy of Technology', Abingdon, 2013.
[78] Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC [General Data Protection Regulation; GDPR].

intervention on the part of the controller, to express his or her point of view and to contest the decision. 4. Decisions referred to in paragraph 2 shall not be based on special categories of personal data referred to in Article 9(1) [personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation], unless point (a) [the data subject has given explicit consent to the processing of those personal data for one or more specified purposes, except where Union or Member State law provide that the prohibition referred to in paragraph 1 may not be lifted by the data subject] or (g) [processing is necessary for reasons of substantial public interest, on the basis of Union or Member State law which shall be proportionate to the aim pursued, respect the essence of the right to data protection and provide for suitable and specific measures to safeguard the fundamental rights and the interests of the data subject] of Article 9(2) applies and suitable measures to safeguard the data subject's rights and freedoms and legitimate interests are in place.'[79]

Consequently, commentators have suggested that although this provision has improved from the rules in the Data Protection Directive, it is still not enough to tackle the issues involved with profiling adequately. For example, Goodman and Flaxman suggest that with 'sufficiently large data sets, the task of exhaustively identifying and excluding data features correlated with "sensitive categories" a priori may be impossible.'[80] Borocz points 'out that the GDPR should be able to minimise the damage in this conflict through its proactive approach, but in order to do so, further steps should be taken.'[81] Eskens suggests that non of the rules on profiling 'are new, and they all relate back to the more general principles and rights in the Regulation. Therefore, the rules on profiling are subject to the same critique'[82] that has been brought forward earlier. Kamarinou, Millard and Singh argue that the GDPR 'requires that information on the decision-making process should be provided at the time that data subjects' personal data are obtained. Machine learning can be a highly dynamic process, where different algorithms and approaches may be tried, and therefore it may be difficult for data controllers to predict and explain at the time personal data are collected the precise nature of the algorithms employed.'[83] Savirimuthu points out that like with the Data Protection Directive, a processing 'activity which involves anonymised data or data that is not personal is not covered by the GDPR'.[84] And Petkova and Boehm stress that 'many open questions still remain. One of them relates to the explainability of algorithmic decision-making. At a technical and/or methodological level, what does explainability entail? Finally, what appeal procedures with human intervention can be deemed to satisfy the standard of suitable safeguards?'[85]

Consequently, it is unlikely that the new rules in the GDPR will adequately solve the tensions that already existed under the Data Protection Directive, among others, because the

[79] Article 22 GDPR.
[80] B.Goodman & S. Flaxman, 'EU regulations on algorithmic decision-making and a "right to explanation"', p. 28 < https://arxiv.org/abs/1606.08813>.
[81] I. Borocz, 'Clash of interests - is behaviour-based price discrimination in line with the GDPR?', 153 Studia Iuridica Auctoritate Universitatis Pecs, 37 2015, p. 55.
[82] S. Eskens, 'Profiling the European Consumer in the Internet of Things: How will the General Data Protection Regulation Apply tot his form of personal data processing, and how should it?', p. 53 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2752010>.
[83] D. Kamarinou, C. Millard & J. Singh, 'Machine Learning with Personal Data: Profiling, Decisions and the EU General Data Protection Regulation', p. 4 <http://www.mlandthelaw.org/papers/kamarinou.pdf>.
[84] J. Savirimuthu, 'Do algorithms dream of 'data' without bodies?', International Review of Law, Computers & Technology, 2017, p. 8.
[85] B. Petkova & F. Boehm, 'Profiling and the essence of the right to data protection', p. 17 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2911894>.

provision on profiling is still only applicable when there is a purely automatic decision-making process, without any human intervention, and because the decisions must have a significant impact on a person's life or have a legal effects, which will often be difficult to substantiate before the courts. Turning to the decisional privacy doctrine as developed by the European Court of Human Rights under Article 8 ECHR might have two advantages. First, persons may be granted a right to partake in the decision-making process and take control over the automatic decision-making process themselves, at least to a certain extent. Second, if decisions are made by third parties that affect citizens, the decision-making process must accord to all the rules of procedural fairness as indicated earlier: citizens must be informed about the decision-making process at an early stage, the decision-making process must be based on relevant and adequate information, the persons must have access to the relevant documents, must be involved in the decision-making process, must be heard and must have an influence on the decision whenever that is possible, the decision making process must be timely, the persons affected must have a right to challenge assertions, must be allowed to request second opinions, the experts being heard must be neutral and objective, the decisions must be comprehensible and fair and it must be possible to appeal the decisions being made.

The advantage would be not only that this provides citizens with more and more adequate protection against profiling practices; in addition, the rules of decisional privacy under the European Convention on Human Rights apply whether the decisions are being made by humans, computers or both. Also, although there is a threshold for accepting cases *ratione personae* under Article 8 ECHR, these are not as strict as under the data protection rules. Consequently, even if the decision-making process does not have legal effects or 'significantly impacts' a person's life, the rules of procedural fairness under the right to privacy may apply. Although the European Court of Human Rights has not yet applied the decisional privacy doctrine to profiling practices, there is no reasons why it would not do so when a case would be brought before it in which a governmental organisation used profiling to make decisions, such as the police, intelligence services, tax authorities or other organisations that are currently already working with group and risk profiles.[86] Consequently, the decisional privacy elements in the case law of the European Court of Human Rights may have a significant effect on all data-based decision-making processes by governmental authorities and lay down stricter and more far-reaching rules and obligations than does the General Data Protection Regulation.

[86] D. Broeders, E. Schrijvers & E. Hirsch Ballin, 'Data and Security Policies: Serving Security, Protecting Freedom' *',* <https://www.wrr.nl/publicaties/policy-briefs/2017/01/31/big-data-and-security-policies-serving-security-protecting-freedom>.