

# EXPLORING SOME OLD AND NEW ETHICAL ISSUES IN CRIMINOLOGICAL RESEARCH AND ITS IMPLICATIONS FOR EVIDENCE-BASED POLICY<sup>1</sup>

# Francisco Javier Castro Toledo<sup>2</sup>

Centro CRÍMINA para el estudio y prevención de la delincuencia (Universidad Miguel Hernandez de Elche) Plus Ethics

Correspondence:

fj.castro@crimina.es

**Received:** 01.06.2020

Accepted: 02.07.2020

<sup>1</sup>This article has been produced with the financing of the Project "Criminología, evidencias empíricas y Política criminal. Sobre la incorporación de datos científicos para la toma de decisiones en relación con la criminalización de conductas – Referencia: DER2017-86204-R, financiado por la Agencia Estatal de Investigación (AEI)/Ministerio de Ciencia, Innovación y Universidades y la Unión Europea a través del Fondo Europeo de Desarrollo Regional FEDER- "Una manera de hacer Europa". <sup>2</sup>Correspondence author: fj.castro@crimina.es

### How to cite this paper

Castro Toledo, Francisco Javier. Exploring some old and new ethical issues in criminological research and its implications for evidence-based policy. 2020, X(X), pX. ISSN. DOI: https://doi. org/10.21134/sjls.vi2.1287

Francisco Javier Castro Toledo

## SUMMARY

1) Introduction. Norms on land of facts. 2) Ethics in criminological studies: When not everything is valid for obtaining scientific evidence. 3) Ethical issues in the collection of criminological data and its use in evidence-based policy. 3.1 Values from design and consent problems. 3.2. 3.2. Ethical risks derived from the use of decision-making algorithms in criminal justice. 4) General Remarks. References

# ABSTRACT

Interest in the development of evidence-based policies for the public management of the control and treatment of crime seems to be the position that will become dominant in the coming years. In this context, it is important for policy makers to know that while social research is surrounded by many ethical dilemmas, criminological research, because of the particular sensitivity of its subject matter and the profound implications of its findings, must emphasise the responsibility of researchers and provide criteria and principles that properly guide their research. To respond to this new context, this paper introduces, as examples of its variety, some of the traditional ethical challenges of criminological research, such as the effective obtaining of consent, as well as some of the new challenges involved in the use of predictive algorithms by criminal justice system operators. We conclude by highlighting the necessity of considering the ethical dimension of criminological research as one of the necessary elements that legislators must assess to critically accept scientific evidence as legitimate.

# **KEYWORDS**

Ethics; Evidence-based policy; Criminology; Informed consent; Data.

Francisco Javier Castro Toledo

## I. INTRODUCTION. NORMS ON THE LAND OF FACTS.

Connecting scientific knowledge to decision making in criminal policy through empirical evidence has become for many researchers, and increasingly for policy makers, the gold standard of "good" governance in citizen security, criminal justice or other closely related areas (Sherman et al., 2002; Miró Llinares, 2018; Ripollés 2003). Well known initiatives such as the Campbell International Collaboration or geographically closer initiatives such as Science in Parliament or the Criminal Policy Studies Group, which broadly advocate an evidence-based policy approach aimed at helping make informed decisions by putting the best available scientific evidence on what works best at the heart of public policy development and implementation (Sherman et al. 1997). Within this eminently evidentialist or, rather, scientistic perspective, in Bunge's terminology (Bunge, 2017), the thesis is often put forward that the best way to address epistemic (and therefore, one might add, decision-making) problems is through the adoption of a scientific approach (Miró-Llinares, 2018). In other words, we must adopt a certain attitude (that is, a truly scientific one) that serves as a firewall against unproven or insufficiently proven points of view, which are often inspired by ideologies, prejudices or even other types of conjectures and speculations (Davis, 2004). In accordance with this, the argumentative scheme

that would configure the legitimising ground of evidence-based criminal policy is relatively simple to outline. So if we consider that politics has to do with collective decision-making procedures, and that these decisions require truthful information to be right, science will therefore be useful for politics as the best way to obtain information and knowledge about the real world. Nevertheless, what characteristics does what we call scientific have that we hope will inform this rational criminal legislator in his decision making?

To begin with, as a result of the task of recognising features of scientificity, we must first point out that there is a heated and unfinished debate in the philosophy of science of the last century that has reached our days (Hansson, 2013). Notwithstanding the profound dissent, two major sets of defining elements of science have been identified: epistemic or internal factors on the one hand, which we will not analyse in this study; and non-epistemic or external factors on the other<sup>3</sup>. In other words, scientific knowledge is not only a cognitive activity (episteme), but also a practical one (praxis) (Echevaría, 2010). Focusing on this second set of non-epistemic, external or practical elements, as opposed to certain positivist positions, one can easily verify that general scientific activity, including criminology in a more specific way, is not performed by out-of-context individuals, rather by communities of individuals mediated by conceptual systems and institutio-

<sup>&</sup>lt;sup>3</sup> Diez and Moulines (1999) analysed in detail how the philosophers of science, in their attempt to define scientific activity in relation to other types of activities, are not only interested in the justification of scientific theories and what this implies, such as the questions of what is evidence, truth or scientific explanation, which are typical of positivist philosophy in the first half of the 20th century. Alongside this sample of philosophical and conceptual challenges, from the second half of the 20th century to the present day, the identification of features of scientific knowledge from real, everyday scientific practice. On the latter, see the influential seminal works of Kuhn (1975) or Lakatos (1989).so de los Diputados, 1987, TRAVERSA, Silvio. "II Presidente della Camera dei Deputati". In TRAVERSA, Silvio (ed). Il Parlamento nella Costituzione e nella prassi (studi). Milano: Giuffrè, 1989, pp. 425-433. <sup>10</sup>LAUNDY, Philip. The Office of Speaker. London: Cassell & Co. Ltd, 1964 and LAUNDY, Philip. Parliaments in the modern world.

Francisco Javier Castro Toledo

nal, social and ethical-normative assumptions of different nature that stand at the base of the evaluation of the epistemic quality of the resulting evidence<sup>4</sup>. As it is impossible to develop all these questions in detail, my aim is to focus on this third dimension of scientific knowledge, the ethical aspects, and to offer some guidelines on its potential involvement in the development of evidence-based criminal policy.

## II. ETHICS IN CRIMINOLOGICAL STUDIES: WHEN NOT EVERYTHING IS VALID FOR OBTAINING SCIENTIFIC EVIDENCE.

It is increasingly clear to us that when scientific research is able to have a direct effect on the daily lives of people and their environments, the least that ought to do is raise real challenges and moral dilemmas for both social researchers conducting the studies and those responsible for using the evidence collected in legislative decision-making at all levels. The point is that when it has been suspected that the achievement of the objectives could bring great social benefits, it has not been strange to be tempted to consider the outcomes more important than the protection of individuals, and thereby incur intolerable misconduct: These range from the need to protect individuals against self-incrimination or the dynamics of victimisation, to ensuring both that they know what they

have accepted by being part of an investigation and that they will offer their views or other data on a completely voluntary basis (Diaz Fernandez, 2019; Israel, 2015; Mertens & Ginsberg, 2009). For instance, of the many social studies that have been more outstanding because of the ethical concerns raised by their designs than for the quality of their results (Ormart, Navés, Lima and Pena, 2013), the classic experiment of Stanford prison (Zimbardo, 2008). To make things simpler, at the beginning of the 1970s the US government showed some concern about the conflicts of living together and management in prison systems, so they finally decided to finance this study whose main objective was to evaluate the influence of extreme environments, especially that of prison life, on people's behaviour depending on the institutional role they occupy (prisoners and guards in this case). Surprisingly for the researchers, the experiment turned into terrible practices of humiliation and torture by the guards to the prisoners in the early days. Such facts forced Zimbardo and his collaborators to abruptly stop the experiment.

Those remarkable social studies progressively underpinned the intuition among researchers that not everything is valid in obtaining scientific evidence. However, it is important to emphasize that today, and with no expectation that it will evolve in the short-term, dissent seems to be the norm in the establishment of concrete ethical boundaries

<sup>&</sup>lt;sup>4</sup>In this regard, Putnam (2002) perfectly synthesised the ethos of this transition between paradigms in Rationality and value, stating that knowledge of facts presupposes knowledge of values, and criticising that the positivist philosophy of science in the first half of the 20th century has been largely a history of attempts to evade this issue. To put it another way, they consider preferable to retain the dogma that facts are objective, and values are subjective, and that they do not interact with each other. Therefore, since the end of the 1970s and on the occasion of the mostly accepted thesis of the under-determination of theory by facts or of facts by theory, that is, the observation of the open and enormously problematic space between facts and theories (Stanford, 2009). Muguerza (1971) already warned that the scientist has no choice but to make value judgments of various kinds as a scientist and to reveal his preferences. Some internal values such as simplicity, complexity, precision, mathematical elegance, empirical adequacy, ontological heterogeneity, etc., are sufficient. Alternatively, external values such as novelty, mutual interaction, applicability to human needs, decentralisation of power or centralisation of power, and profitability, among others, may serve as examples.

Francisco Javier Castro Toledo

that will adequately guide social research in general (Mertens & Ginsberg, 2009), which seems to be becoming more acute in criminology due, among other reasons, to its later development (Cowburn, Gelsthorpe & Wahidin, 2017). In this regard, the British Society of Criminology became the first international platform of social, legal and professional researchers to create an ethics committee responsible for defining and monitoring the fulfilment of the specific duties of criminology researchers towards the participants of their studies. One year later, this purpose was stated in the first Code of Ethics for Researchers in the Field of Criminology, which was strongly criticised for its unfeasibility as a working guideline and was requested to be modified up to three times (Dingwall, 2012). Recently imitated by other countries such as the USA or Australia, among others, these codes, guidelines or ethical statements defend, in a general and consequently soft way, that the protection of potentially vulnerable participants in a research project should be an issue that cannot be ignored by researchers and, unless information is available that points in a different direction, it should be assumed that all participants are potentially vulnerable, including, and not least, the researchers themselves (Díaz Fernández, 2019). To summarize, though providing certain guidelines and general principles on how individuals can be protected, most ethical codes are the subject of endless debates among moral and scientific philosophers which range from an overprotective principled view of individuals (ASSWG, 2014) to a utilitarianism which, in limited circumstances, does not benefit individuals, but does, some point out, future generations who will be subject to the legislative policies based on the evidence gathered in these studies (Hammersley, 2009).

The above implies that there are many stake-

holders to be taken into consideration for the right development of the criminological investigation, and their claims should be carefully considered when examining all ethical issues related to data collection, analysis and presentation of information. Hence, although we will not make a detailed analysis of all ethical challenges associated with criminological research here, some of the concepts outlined above will be clarified in the following section by first identifying some of the main ethical issues in criminological data collection and secondly by describing the ethical challenges associated with the use of criminological data for criminal policy decision-making.

## III. ETHICAL ISSUES IN THE CO-LLECTION OF CRIMINOLOGICAL DATA AND ITS USE IN EVIDEN-CE-BASED POLICY

# 1. Consent issues and values from design

BThe collection of criminological data is one of the most sensitive and ethically challenging moments in the empirical research process, especially if it is to be processed and transferred for decision making in Criminal Policy (Pollock, 2014). Its importance stems by the fact that it is the first moment in which the researcher decides to get in touch with the social or factual reality, controlling and restricting it to the parameters of a series of instruments and tools in which he has codified his models and conceptual structures about how political-criminal phenomena work and are related (Hagan, 1997). In this scenario there are several ethical dilemmas widely identified and shared in the various forms of social research, but I would say that they are emphasized in the area that interests us herein. Hence, without aiming to be ex-

Francisco Javier Castro Toledo

haustive, due to space limitations, I will dedicate this section to briefly mention some of the most important ethical dilemmas related to research with human subjects in the context of criminal policy.

Broadly speaking, the major codes of ethics for research in the criminal justice context reflect the standard that human participants are guaranteed the right to full disclosure of the purposes of research as soon as it is appropriate to the research process, and are also entitled to the opportunity to have their concerns about the purpose and use of research answered (Braswell et al., 2017). In the face of this, one of the most controversial avenues from the perspective we are interested in are those practices of observing people's behaviour in their natural context without their knowledge or consent. Examples of this have traditionally been covert ethnomethodological research (Garret, 2013; Winlow & Hall, 2012) or, more recently, online research on social networks (Castro Toledo, 2019; Castro-Toledo et al., 2020; Miró-Llinares et al., 2018) or through the dark web (Moneva et al., 2019). Of course, this approach has been adopted by researchers when they foresee the risk that those who are aware that they are being observed will decide to act differently to their usual environment, especially when dealing with criminal or simply antisocial behaviour, and thus invalidate the results of the study (Maxfield & Babbie, 2014). At the level of the criminal justice system, several studies have shown how the importance of discretion in the criminal justice process and the hidden nature of many of the day-to-day decisions seem to support the increased use of these covert and non-consensual observation techniques in an effort to understand how police, prosecutors and prison staff carry out their duties (Miller & Gordon, 2014). To these essentially pragmatic reasons, others have

been added, such as the degree of involvement of researchers in the observation context. On this, I believe that Braswell and colleagues (2017) are right in introducing the nuance that if a behaviour being studied could have happened without the intervention of the researcher, then the absence of consent seems less problematic than in those research designs where researchers introduce ad hoc elements to produce some kind of response in the persons observed. A separate but closely related issue is that social research often unintentionally yields findings outside the scope of the original research questions, forcing the researcher under certain circumstances to resolve the dilemma between preserving confidentiality or disclosing the information to the relevant authorities. In line with the European Commission's (October, 2018) standards of integrity in social science and humanities research, there is a statement that criminal activities witnessed or discovered in the course of research should be reported to the responsible and appropriate authorities, even if this means compromising prior commitments to participants to maintain confidentiality and anonymity. It is therefore essential to inform participants about the limits of the confidentiality that can be offered (ie. the information sheet should cover the policy on incidental findings).

## 2. Ethics risks arising from the use of decision-making algorithms in criminal justice

AOver and above these ethical challenges associated with the collection of criminological data, at present, when in police and judicial contexts there is a demand to introduce automated or semi-automated decision-making procedures, strategies or protocols (for example those based on algorithms), an enormously problematic stream of discussion arises, suggesting that algorithms

Francisco Javier Castro Toledo

are neutral and objective, amoral and without social sensitivity (for a critique, see Chander, 2016); Astobiza Monastery, 2019; Parmar & Freeman, 2016; Raymond & Shackelford, 2013; Sloane, 2019) and, consequently, better than any human agent at deciding on complex issues. In contrast, some have criticised this trend of "technosolutionism" (Morozov, 2014), which Echevarría already warned us about two decades ago by calling it the "government of the lords of the air", putting forward the post-positivist philosophical thesis that science and technology do not render them out of context, but rather groups of people who share conceptual systems and interests of various kinds (ethical, legal or social, among others), something which, as we have been indicating throughout this work, introduces a significant axiological and evaluative burden into general scientific practice and, undoubtedly, also into that of those data scientists dedicated to the development of algorithms. For this reason, it is naive to assert that algorithms are neutral, objective, amoral or without social sensitivity, but rather the opposite: namely, that they are a reflection, to a greater or lesser extent, of the stereotypes and biases of their programmers (Miro Llinares, 2020). Taking this as a starting point, we will now briefly develop two concepts that will help us to understand some of the main ethical issues that arise in the context of data acquisition, processing, storage or interpretation and the phenomenon of algorithmic discrimination. We are talking about both bad data and dirty data.

Concerning the bad data, and as compiled by McCallum (2012), it is not easy to define what "bad data" is in a precise way, since several elements are involved in this phenomenon. For instance, while some people see it as a purely practical technical phenomenon related to missing values or poorly formed records, others see it as data that is difficult to access because of a poor representation of reality and results in misguided policy. All these definitions ultimately address different methodological questions about how the design and implementation of different research models and interpretation of results might impact on the creation of algorithms. For this reason, if we accept that the final objective of all scientific research is to isolate, define and explain the relationship between relevant variables in order to predict and understand the causality of phenomena in reality (Bhattacherjee, 2012; Hagan, 1997), we can identify two non-exclusive areas of bias due to bad data that directly affect the validity and precision of algorithms in general: spurious correlations and non-representativeness of data. With respect to the first, three steps have been recommended to address the problem of causality (Hagan, 1997). First, it is necessary to demonstrate the relationship or correlation between variables, in other words, the increase and decrease of their values. Second, the sequential order of the relationship between variables must be specified. Last, we must exclude those rival or strange causal factors, as well as eliminate other variables that can explain the original relationships that the research had hypothesized. Failure to apply these three strategies will significantly increase the risk that the relationship between the variables is spurious or, in other words, a false relationship. The representativeness of the sample, on the other hand, outlines the external validity of the conclusions we can draw from our data (Lewis-Beck, Bryman, & Liao, 2003). In other words, it is about the extent to which the relationship between the variables observed in the research context can be generalised outside the specific context of the study. Hence, those algorithms whose data come from research designs made from non-representative samples will have limitations and shortcomings sufficiently important to render the results

Francisco Javier Castro Toledo

obtained unusable for reaching valid conclusions about the relationship between variables (McAbee, Landis, & Burke, 2017; Shearmur, 2015).

Another bias in data that jeopardises the validity and accuracy of algorithms is that of the information units that make up the dirty data (Kim, Choi, Hong, Kim, & Lee, D. 2003; Parks, 2019). What has been colloquially described as "it's garbage in, garbage out". The studies of the stopand-frisk phenomenon are enormously illustrative of this type of bias (Gelgan, Fagan & Kiss, 2007; White & Fradella, 2016, among others). These include a recent study in the US by Richardson, Schultz, Crawford (2019) on how law enforcement agencies are increasingly using predictive algorithms to forecast criminal activity and allocate police resources based on data produced during poor, racially biased and sometimes illegal policing practices and policies ("dirty policing"). More specifically, among their main findings, the authors state that many stops and frisks carried out between 2012-2014 were illegal and mainly affected the black population. With this data based on previous arrests, the "Strategic Subject List" was developed: a tool for analysing crime and automatically identifying and classifying individuals at risk of becoming a victim or potential offender in a shooting or homicide. A similar approach was taken by Turner, Medina & Brown (2019) who show that the UK's Domestic Abuse, Stalking and Honour Based Violence (DASH) risk assessment tool, implemented in most UK police departments, is underperforming or for those who, given the best of circumstances, police identification of high-risk cases is little better than a coin toss. In this sense, the quality of the data collected by the police is poor and, consequently, the predictive quality cannot be corrected by modelling, whether it be logistic regression or a state-of-the-art neural network.

### **IV. GENERAL REMARKS**

TIn this work I present the thesis that scientific activity focused on the phenomenon of criminality is strongly affected by the introduction of ethical values or other non-epistemic dimensions that compel us to rethink it as a socially and historically situated activity. It is important, therefore, the recognition that science is something permeable to the values coming from a society and culture shared by the researchers and according to this, these will influence the identification of which problem or problems should be examined, which will be the criterion for the interpretation of the data or what will constitute, in short, scientific evidence. Therefore, the rational criminal lawmaker we intend to inform must be aware of these circumstances surrounding scientific activity in order to detect the features of scientificity in potential evidence candidates. Furthermore, in this new context, in which we have described that not everything is useful in obtaining scientific evidence, we must make every effort to value responsible research and innovation as a link between scientific practice, politics and society.

I am aware that the most problematic aspect of this approach is that the acceptance of scientific theories and evidence seems to have less to do with truth than with the adjustment to one or another value. Nevertheless, as Mäki (2013) rightly pointed out, we choose some theories rather than others because either we think they have more creative models, or they organise information better, or we think they are more profitable, or their implications are more beneficial to society, whatever the case may be. In my opinion, I believe that this does not affect the integrity of science as the best possible reflection of how things really are, but rather requires us to introduce into the old and naive positivist approaches

Francisco Javier Castro Toledo

some of the analytical keys that are currently offered to understand the relationship between obtaining scientific evidence, the moral dilemmas that emerge in research practice and the ethical challenges associated with the use of criminological data for political-criminal purposes. Otherwise, we will continue to believe that the scientific method can be applied in the vacuum of its own internal coherence and considered free from the influence of external values as understood by positivist philosophers, presenting a deficient and wrong image of the real functioning of scientific activity.

## **V. REFERENCES**

Astobiza, A. M. (2017). Ética algorítmica: Implicaciones éticas de una sociedad cada vez más gobernada por algoritmos. Dilemata, (24), 185-217.

Bhattacherjee, A. (2012). Social science research: Principles, methods, and practices. https://scholarcommons.usf.edu/cgi/viewcontent. cgi?article=1002&context=oa\_textbooks

Braswell, M. C., McCarthy, B. R., & McCarthy, B. J. (2017). Justice, crime, and ethics. Taylor & Francis.

Bunge, M. (2017). Elogio del cientificismo (pp. 13-29). Laetoli.

Castro-Toledo, F.J.; Gretenkort, T., Esteve, M., Miro-Llinares, F. (2020) "Fear in 280 caracters" A new approach for over time evaluation of fear in cyberspace". In: V. Ceccato & M. Nalla (eds.) Crime and fear in public places. Routledge/Taylor and Francis.

Castro-Toledo, F.J. (2019). Miedo al crimen y sociedad tecnológica. Editorial BdF.

Chander, A. (2016). The racist algorithm. Mich. L. Rev., 115, 1023.

Cowburn, M., Gelsthorpe, L. & Wahidin, A. (2017). Research ethics in Criminology: dilemmas, issues and solutions. Routledge.

Davies, P. (2004). Is Evidence-Based Goverment Possible? Jerry Lee Lecture presented at the 4th Annual Cambell Collaboration Colloquium. Washingtong DC, 19 February, 2004.

Díaz Fernández, A. (2019). La investigación de temas sensibles en criminología y seguridad. Tecnos.

Díez Ripollés, J. L. (2003). La racionalidad de las leyes penales. Madrid: Trotta, 19.

Díez, J., & Moulines, C. (1999). Fundamentos de la Filosofía de la Ciencia. Ariel.

Echevarría, J. (2010). De la filosofía de la ciencia a la filosofía de la tecnociencia. Daímon Revista Internacional de Filosofía, (50), 31-41.

Echeverria J (1999). Los Señores del Aire: Telepolis y el Tercer Entorno.Destino.

European Commision (octubre, 2018). Ethics in Social Sciences and Humanities. https:// ec.europa.eu/info/sites/info/files/6.\_h2020\_ ethics-soc-science-humanities\_en.pdf

Garrett, B. (2013). Explore Everything: Place-Hacking the City. Verso.

Gelman, A., Fagan, J., & Kiss, A. (2007). An analysis of the New York City police department's "stop-and-frisk" policy in the context of claims of racial bias. Journal of the American Statistical As-

### Francisco Javier Castro Toledo

sociation, 102(479), 813-823.

Hagan, F. E. (1997). Research methods in criminal justice and criminology. Boston: Allyn and Bacon.

Hammersley, M. (2009). Against the ethicist: on the evils of ethical regulation. International Journal of Social Research Methodology, 12(3), 211-225

Hansson, S. O. (2013). Defining pseudoscience and science. In Pigliucci, M. and Boudry, M. (eds.). Philosophy of pseudoscience: Reconsidering the demarcation problem, (61-77). University of Chicago Press.

Israel, M. (2015). Research Ethics and Integrity for Social Scientist: Beyond Regulatory Compliance. Sage.

Kim, W., Choi, B. J., Hong, E. K., Kim, S. K., & Lee, D. (2003). A taxonomy of dirty data. Data mining and knowledge discovery, 7(1), 81-99.

Kraemer, F., Van Overveld, K., & Peterson, M. (2011). Is there an ethics of algorithms?. Ethics and Information Technology, 13(3), 251-260.

Kuhn, T. (1975). La estructura de la revolución científica. Fondo de la Cultura Económica.

Lakatos, I. (1989). La falsación y la metodología de los programas de investigación científica. Alianza

Lewis-Beck, M., Bryman, A. E., & Liao, T. F. (2003). The Sage encyclopedia of social science research methods. Sage Publications.

Llinares, F. M. (2018). Hechos en tierra de normas: Una introducción epistemológica a la relevancia de la realidad fáctica en el Derecho penal. En Estudios jurídico penales y criminológicos: en homenaje a Lorenzo Morillas Cueva (pp. 451-473). Dykinson.

Mäki, U. (2013). Scientific imperialism: Difficulties in definition, identification, and assessment. International Studies in the Philosophy of Science, 27(3), 325-339.

McAbee, S. T., Landis, R. S., & Burke, M. I. (2017). Inductive reasoning: The promise of big data. Human Resource Management Review, 27(2), 277-290.

McCallum, Q. (2012). Bad data handbook. O'Reilly Media, Inc..

Mertens, D & Ginsberg, P (2009). The Handbook of Social Research Ethics. Sage.

Miller, S., & Gordon, I. A. (2014). Investigative ethics: Ethics for police detectives and criminal investigators. John Wiley & Sons.

Miró Llinares, F. (en prensa). Cientismo, dogmatismo y Derecho Penal. En Paredes Castañon (eds.), Libro Homenaje al Profesor Diego Manuel Luzón Peña con motivo de su 70 aniversario.

Miró Llinares, F. M. (2020). Predictive policing: utopia or dystopia? On attitudes towards the use of big data algorithms for law enforcement. IDP: revista de Internet, derecho y política= revista d'Internet, dret i política, (30), 5.

Miró-Llinares, F., Moneva, A., & Esteve, M. (2018). Hate is in the air! But where? Introducing an algorithm to detect hate speech in digital microenvironments. Crime Science, 7(1), 15.

Francisco Javier Castro Toledo

Moneva, A., & Caneppele, S. (2019). 100% sure bets? Exploring the precipitation-control strategies of fixed-match informing websites and the environmental features of their networks. Crime, Law and Social Change, 1-19.

Morozov E. (2014): To Save Everything, Click Here: The Folly of Technological Solutionism . New York, Public Affairs.

Muguerza, J. (1971). Nuevas perspectivas en la filosofía contemporánea de la ciencia. Teorema: Revista Internacional de Filosofía, 1(3), 25-60.

Ormart, E., Navés, F., Lima, N., & Pena, F. (2013). Problemas éticos en la experimentación psicológica. Asch, Milgram y Zimbardo en cuestión. Aesthethika, 9(1), 15-31.

Parks, L. (2019). Dirty Data: Content Moderation, Regulatory Outsourcing, and The Cleaners. Film Quarterly, 73(1), 11-18.

Parmar, B., & Freeman, R. E. (2016). Ethics and the algorithm. MIT Sloan Management Review, 58(1), 16.

Pollock, J. M. (2014). Ethical dilemmas and decisions in criminal justice. Nelson Education.

Raymond, A. H., & Shackelford, S. J. (2013). Technology, ethics, and access to justice: should an algorithm be deciding your case. Mich. J. Int'l L., 35, 485.

Richardson, R., Schultz, J., & Crawford, K. (2019). Dirty Data, Bad Predictions: How Civil Rights Violations Impact Police Data, Predictive Policing Systems, and Justice. New York University Law Review Online, Forthcoming. Shearmur, R. (2015). Dazzled by data: Big Data, the census and urban geography.

Sherman, L. W., MacKenzie, D. L., Farrington, D. P., & Welsh, B. C. (Eds.). (2002). Evidence-based crime prevention. Routledge.

Sherman, L., Gottfredson, D., MacKenzie, D., Eck, J., Reuter, P., & Bushway, S. (1997). Preventing crime: What works, what doesn't and what's promising. U.S. Department of Justice.

Sloane, M. (2019). Inequality Is the Name of the Game: Thoughts on the Emerging Field of Technology, Ethics and Social Justice. In Weizenbaum Conference (p. 9). DEU.

Stanford, K. (2009). Underdetermination of scientific theory. Stanford Encyclopedia of Philosophy https://stanford.library.sydney.edu.au/ archives/spr2017/entries/scientific-underdetermination/

Turner, E., Medina, J., & Brown, G. (2019). Dashing hopes? The predictive accuracy of domestic abuse risk assessment by police. The British Journal of Criminology, 59(5), 1013-1034.

White, M. D., & Fradella, H. F. (2016). Stop and frisk: The use and abuse of a controversial policing tactic. NYU Press.

Winlow, S & Hall, S. (2012). What is an 'ethics committe'? Academic governance in an epoch of belief and incredulity. British Journal of Criminology, 52: 400-416.

Zimbardo, P. G. (2008). El efecto Lucifer: el porqué de la maldad. Grupo Planeta.