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Safety from False Confessions

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Abstract

In certain fields, the meaning of a "safety-critical system" is well understood, and resources are, therefore, invested in modern safety methods, which significantly reduces the rate of accidents. For example, the aviation field abandoned the obsolete "Fly-Fix-Fly" approach and developed more advanced safety methods that generally follow an "Identify-Analyze-Control" model and are aimed at "First-Time-Safe." Under the latter approach, there is systematic identification of future hazards, analysis of the probability of their occurrence, and a complete neutralization of the risk or at least its reduction to an acceptable level. As explained in the article, a false conviction is no less a system error and accident than a combat-plane crash. Yet in criminal law, a "Hidden Accidents Principle" governs and the overwhelming majority of false convictions are never detected. Consequently, no thought has ever been given to safety in the system. Empiric studies based on the Innocence Project's findings point to a very high false-conviction rate: at least 5% for the most serious crimes. About one-quarter of those convictions had been determined to be based on a false confession.

Current confession law—in particular, the *Miranda* rules—only addresses the possibility of an involuntary confession. It does not seriously deal with the existing possibility of false confessions (which may be voluntary). This article proposes a theory and some initial tools for incorporating modern safety into the criminal justice system. Specifically, I demonstrate how the innovative "System-Theoretic Accident Model and Processes" (STAMP) safety model can be applied in the criminal justice system, by developing constraints, controls, and barriers against the existing hazards in the context of convictions grounded on the defendant's confession during police interrogation.

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Introduction

The meaning of a "safety-critical system" is well understood in some fields, therefore, more resources are invested in modern safety methods, which significantly reduces the rate of accidents. For example, in the field of pharmaceuticals and drugs, where in the first half of the twentieth-century, the need for safety was already acknowledged and internalized, and the necessary powers and authorities were granted to the FDA to ensure this. This was also the case in the aviation field, which abandoned the obsolete "Fly-Fix-Fly" approach in the mid-20th Century and developed more advanced safety methods that generally follow an "Identify-Analyze-Control" model and are aimed at "First-Time-Safe." Under the latter approach, there is systematic identification of future hazards, analysis of the probability of their occurrence, and a complete neutralization of the risk or at least its reduction to an acceptable level. Modern safety approaches such as these were implemented in other fields as well, such as transportation and engineering, and later, in labor and medicine. These safety systems are constructed on, among other things: safety education and training, a culture of safety, a duty to report not only accidents but also incidents (near-accidents), professional risk assessment, a process of perpetual improvement, and the understanding that safety in each component of a system alone in detachment from the entire system is not sufficient for achieving system safety.

In the criminal justice system, accidents happen too of course: false convictions. For this reason, this system must also be classified as needing a safety-critical system.[1] As systems of this type entail matters of life and death, any system error is likely to cause severe harm to both individuals and society at large. A false conviction is no less a system error and accident than a plane crash, not only from a metaphorical perspective but also in the very realistic terms of economic cost.[2] Yet in criminal law, a Hidden Accidents

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[1] In a coauthored Article with Dr. Mordechai Halpert, we have suggested applying the term "safety-critical system" to the criminal justice system: Mordechai Halpert & Boaz Sangero, *From a Plane Crash to the Conviction of an Innocent Person: Why Forensic Science Evidence Should Be Inadmissible unless It Has Been Developed as a Safety-Critical System*, 32 Hamline L. Rev. 65, 70 (2009).

[2] Boaz Sangero & Mordechai Halpert, *A Safety Doctrine for the Criminal Justice System*, Mich. St. L. Rev. 1293, 1304–05 (2011). Incorporating into the criminal justice system a modern safety theory that is commonly accepted in other areas, such as space, aviation, engineering, and transportation, is an idea that was developed jointly by myself and Dr. Mordechai Halpert and presented in a number of coauthored Articles, particularly *A Safety Doctrine for the Criminal Justice System*. My current Article is intended to expand on the preliminary proposition and engage in the application of the modern safety theory in the criminal justice system, specifically regarding false confessions.

Principle governs.[3] Thus, the overwhelming majority of false convictions are never detected, which led to the erroneous traditional and conservative assumption that they occur at an almost negligible rate and that the criminal justice system is *almost* perfect. Consequently, no thought has ever been given to safety, and the criminal justice system, from a safety perspective, lags far behind other areas.

The patently flawed assumption of a low false-conviction rate has been challenged in recent decades. This has been primarily a result of the work of the Innocence Project, in which hundreds of cases of false convictions have been exposed through genetic testing, and empiric studies based on the Project's findings, which point to a very high false-conviction rate: at least 5% for the most serious crimes and an apparently even higher rate for less serious crimes.[4] About one-quarter of those convictions had been based on a (presumably false) confession.[5]

In the past, courts tended to view a defendant's confession, even when extracted by police interrogators, as very strong evidence that is (and should be) sufficient to attain a conviction, and the confession has been crowned the "queen of evidence."[6] Yet many studies have pointed to the phenomenon of false confessions and its various causes. Other studies have revealed the significant extent to which wrongful convictions based on false confessions occur. American law, it will be shown, does not make a serious attempt at contending with the risk of a false confession that is voluntarily given. Elsewhere, I have recommended instituting a statutory strong corroboration requirement for convicting based on a confession.[7] This mandatory condition would require strong, autonomous corroboration of the allegation that the defendant is the perpetrator of the crime. Yet even this stronger requirement would not always suffice to prevent a false conviction, due to the light evidentiary weight that should be accorded to a confession. In a world in which the law-enforcement system could distinguish between what is true and what is false, it can be assumed that false confessions would be filtered out. Yet contrary to what is commonly believed, research

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[3]Sangero & Halpert, *supra* note 2, at 1314–16.

[4]Michael Risinger, *Innocents Convicted: An Empirically Justified Factual Wrongful Conviction Rate*, 97 J. CRIM. L. & CRIMINOLOGY 761 (2007).

[5]BARRY SCHECK, PETER NEUFELD & JIM DWYER, ACTUAL INNOCENCE: FIVE DAYS TO EXECUTION AND OTHER DISPATCHES FROM THE WRONGLY CONVICTED (2000); Keith A. Findley, *Learning from Our Mistakes: A Criminal Justice Commission to Study Wrongful Convictions*, 38 CAL. W. L. REV. 333 (2002); And for a study analyzing the first two hundred acquittals of the Innocence Project, *see* Brandon L. Garrett, *Judging Innocence*, 108 COLUM. L. REV. 55, 76 (2008).

[6]Boaz Sangero, Miranda *Is Not Enough: A New Justification for Demanding "Strong Corroboration" to a Confession*, 28 CARDOZO L. REV. 2791, 2794–800 (2007).

[7]*See* Sangero, *supra* note 6.

shows that police investigators, prosecutors, judges, and juries are unable to distinguish a true from a false confession.

This article proposes a theory and some initial tools for incorporating modern safety into the criminal justice system. Specifically, I demonstrate how the innovative "System-Theoretic Accident Model and Processes" (STAMP) safety model can be applied to criminal justice by developing constraints, controls, and barriers against the existing hazards in the context of convictions grounded on the defendant's confession during police interrogation.

The suggested safety theory and tools presented in this Article are, moreover, universal, rather than being applicable only to certain criminal law systems. I believe that every criminal law system can benefit from adopting it.

The criminal justice system produces countless convictions of the guilty but, unfortunately, also many convictions of the innocent. In the present situation, there is a systematic infliction and perpetuation of the greatest injustice that the state routinely causes to its citizens: the criminal conviction of the innocent. Fundamental reforms and changes are vital. Hopefully this Article will contribute to taking some steps on that path to safety and to inspiring others to take up the challenge to further develop safety in the criminal justice system.

The Article proceeds as follows. Part I connects between the modern theory of safety in other areas of our life and the new theory of safety from false convictions. Part II describes the hazard of false confessions. Part III explores the accidents of convicting the innocent based on a false confession. Part IV addresses some possible safety measures. Part V suggests the main innovative contribution of this Article: applying the safety STAMP model to confessions, in order to reduce the risk of false convictions. A short conclusion follows.

The purpose of this Article is Fourfold: (1) Adopting modern safety theory into the criminal justice system; (2) Looking for safety measures regarding false confessions; (3) Developing a safety from false confessions model, based on STAMP model, which can and should be adopted; (4) Opening the way for applying this model on other hazards for false convictions embedded in the criminal justice system.

I. Safety from False Convictions

A. False convictions

It is most convenient for us to hold our criminal law system in high regard, to the point of calling it the "criminal justice system." It is convenient for us to think that everything runs as it should in this system. And even if certain doubts creep in at times, we tend to repress them and stand firm in our ignorance.

The state can inflict no greater injustice on its citizens than to

systematically falsely convict innocents. In the past, it was possible to call into question the actual occurrence of false convictions and consider this, at most, a negligible phenomenon. However, today such skepticism has no place and likely derives mainly from ignorance. This is principally due to the "DNA revolution" and the first Innocence Project at the Cardozo School of Law at Yeshiva University in the U.S.[8] In the framework of this Innocence Project, genetic comparisons are conducted between samples taken from inmates and samples that have been preserved from crime scenes. On the basis of the testing initiated by the original Innocence Project (today there are similar additional projects, both in the U.S. and elsewhere), over 350 false convictions have been exposed,[9] the majority of which were for the serious offenses of rape and murder, which carry the harshest possible penalties: life imprisonment or capital punishment. Moreover, in almost half of the cases,[10] genetic testing even led to the identification of the true perpetrators of the crimes, who had roamed free due to the false convictions and, in some cases, even continued to commit crimes. In addition, recent studies have shown that false convictions are not an uncommon phenomenon.[11] These findings make a renewed, more realistic consideration of the issue imperative.

B. Risk assessment

Empiric studies based on the Innocence Project's findings point to a very high false-conviction rate. According to Michael Risinger's research, the rate of false convictions is 5% for the most serious crimes — rape and murder.[12] One of the most impactful works on the exposure of wrongful convictions is Samuel R. Gross and Michael Shaffer's study, entitled *Exonerations in the United States, 1989–2012—Report by the National Registry of Exonerations*.[13] The researchers gathered data on the exoneration of wrongfully convicted defendants in the U.S., including exonerations based on

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[8]BARRY SCHECK ET AL., ACTUAL INNOCENCE: FIVE DAYS TO EXECUTION AND OTHER DISPATCHES FROM THE WRONGLY CONVICTED (2000); BRANDON L. GARRETT, CONVICTING THE INNOCENT—WHERE CRIMINAL PROSECUTIONS GO WRONG (2011); www.innocenceproject.org.

[9]On November 12, 2017 the exact number was 351. INNOCENCE PROJECT, www.innocenceproject.org.

[10]On November 12, 2017 the exact number was 150. INNOCENCE PROJECT, www.innocenceproject.org.

[11]For a new updated survey of the literature in this field, *see* Richard A. Leo, *The Criminology of Wrongful Conviction: A Decade Later* (forthcoming 2017, available at SSRN).

[12]Michael Risinger, *Innocents Convicted: An Empirically Justified Factual Wrongful Conviction Rate*, 97 J. CRIM. L. & CRIMINOLOGY 761 (2007).

[13]SAMUEL R. GROSS & MICHAEL SHAFFER, EXONERATIONS IN THE UNITED STATES, 1989–2012, REPORT BY THE NATIONAL REGISTRY OF EXONERATIONS (2013).

DNA comparative testing, but not only such exonerations. The database encompasses an impressive number of exonerations: 891 exonerations of individuals, of which approximately one-third were based on DNA comparisons, and an additional 1,170 individuals cleared in "group exonerations";[14] altogether these amounted to a total of 2,061 official exonerations of wrongly convicted, innocent defendants who were sentenced to prison or even death. In 2014, Gross et al. published their study on "Rates of False Conviction of Criminal Defendants who are Sentenced to Death."[15] The researchers estimated that if all death-sentenced defendants were to remain under sentence of death indefinitely, at least 4.1% would be exonerated, but concluded this to be "a conservative estimate" of the proportion of false convictions among death sentences in the U.S., and that it is almost certain that the actual proportion is significantly higher (i.e., 4.1% is the greatest lower bound). Moreover, a recently published, fascinating empirical study, initiated and funded by the State of Virginia,[16] supports an even higher estimate of the false conviction rate — about 15% (!).

Thus, the false-conviction rate in the most severe offences can be reasonably estimated as somewhere between 5% and 10%. And as it is reasonable to assume that courts are less cautious with regard to less serious offenses than those examined in the studies reviewed above, it is likely that the false-conviction rate is significantly higher than 5%.

These numbers remove any doubt as to the occurrence of false convictions. The question now, however, is with what frequency they occur, and what can be done to diminish their incidence.

False convictions cause an enormous harm—to the innocent defendants, their families, and friends, but also to society as a whole. The falsely convicted individual bears the primary injury in the very fact of being convicted, the accompanying stigma, and the actual punishment, which can range from a monetary fine to imprisonment, to loss of life in jurisdictions allowing the death penalty. Studies have been conducted on the harm caused by imprisonment for many

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[14]These group exonerations were in the framework of twelve different instances of police corruption, where in each case, police officers had deliberately and systematically incriminated innocent citizens with false claims and fabricated evidence in order to gain promotions. GROSS & SHAFFER, *supra* note 13.

[15]Samuel R. Gross, Barbara O'Brien, Chen Hu, & Edward H. Kennedy, *Rate of False Conviction of Criminal Defendants Who Are Sentenced to Death*, 111 Pnas 7230 (2014).

[16]JOHN ROMAN, KELLY WALSH, PAMELA LACHMAN & JENNIFER YAHNER, POST-CONVICTION DNA TESTING AND WRONGFUL CONVICTION (2012) (research report submitted to the U.S. DEP'T JUST.).

years, but only in the last decade have the particular harms of *wrongful* imprisonment been researched, some irreversible.[17]

C. The Moral Duty to Adopt Safety Measures

There is an imperative moral duty to adopt safety measures, based on social theories, such as the social contract theory, and legal doctrines, such as the state-created danger doctrine. The conviction of an innocent person is an enormous injustice which cannot be ignored.

Although many are willing to accept rare occurrence of wrongful convictions as an unavoidable phenomenon, sooner or later it will become common public knowledge that not only are false convictions not a rarity, but the law enforcement authorities make no significant effort to diminish their incidence. This is likely to strongly shake existing public confidence and trust in the criminal law enforcement system, which is still referred to as the criminal justice system. In other words, even disregarding due process,[18] if we want to preserve public faith in the criminal justice system so that it can continue to perform its function of crime control, it is vital that safety standards be implemented to decrease the rate of false convictions.

Social contract theory also provides a rationale for imposing a moral duty on the state to institute safety in criminal justice. Under this theory, the state was created in order to safeguard the rights of society's members, not to cause them injury,[19] and as noted, false conviction is the greatest wrong that a state routinely inflicts upon its citizens. Thus, from the social contract perspective, the state, as the creator of the risk of false convictions, bears a heightened moral duty in the context of criminal justice—as compared to other contexts—to take safety measures to alleviate this risk. Yet beyond its theoretical declaration that guilt must be proven beyond a reasonable doubt, the state makes no meaningful attempt to reduce the risk of an innocent person being falsely convicted.[20] Criminal law in

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[17]Saundra D. Westervelt & Kimberly J. Cook, *Framing Innocents: The Wrongly Convicted as Victims of State Harm*, 53 CRIME L. & SOC. CHANGE 259 (2010). On the tremendous difficulties faced by exonerees after their release, see also Heather Weigand, *Rebuilding a Life: The Wrongfully Convicted and Exonerated*, 18 PUB. INT. L.J. 427 (2009); Mary C. Delaney, Keith A. Findley & Sheila Sullivan, *Exonerees' Hardships after Freedom*, 83 WIS. L. Rev. 18 (2010); JAMES R. ACKER & ALLISON D. REDLICH, WRONGFUL CONVICTION—LAW, SCIENCE, AND POLICY 590–606 (2011); Leslie Scott, *"It Never Ends": The Psychological Impacts of Wrongful Conviction*, 5 AM. UNIV. CRIM. L. BRIEF 10 (2010).

[18]HERBERT L. PACKER, THE LIMITS OF THE CRIMINAL SANCTION 149–73 (1968).

[19]Rinat Kitai, *Protecting the Guilty*, 6 BUFF. CRIM. L. REV. 1163, 1172–79, 1186–87 (2003); Sangero & Halpert, *supra* note 2, at 1303.

[20]Sangero & Halpert, *supra* note 2, at 1303.

fact lacks even the most basic concept of modern system-safety,[21] with not even the most rudimentary and simple safety measures implemented to reduce the risk of false convictions.

D. Safety from False Convictions

On this background, this Article explores ways of reducing the false conviction rate. The view advanced here is that the criminal justice system can be categorized as what is termed in safety engineering a "safety-critical system."[22] As systems of this type entail matters of life and death, any system error is likely to cause severe harm to both individuals and society at large. A false conviction is no less a system error and accident than a combat-plane crash, not only from a metaphorical perspective but also in the very realistic terms of economic cost.[23]

This Article argues for the formulation and application of a safety theory in the criminal justice system, and specifically regarding confessions. This would not be simply by raising the beyond-reasonable-doubt bar, thereby increasing the number of acquittals and decreasing the number of convictions. Rather, by reasonable safety measures whose costs are lower than their expected harm, due to the resulting reduction of both the number of false acquittals *and* the number of false convictions.[24]

E. Modern Safety Approaches

Modern safety began to develop following World War II. Until then, the safety approach in the field of aeronautics had been "Fly-Fix-Fly": an airplane would be flown until an accident occurred, the causes of the accident would be investigated and the defects repaired, and then the airplane would resume flight. This method was based on a system of learning from past experience to repair product defects and flaws to prevent future mishaps. However, such a system does not safeguard against future mishaps that can be caused by other, as-yet undetected defects. This approach became clearly inadequate with the rapid advances in aviation technology and rising costs of airplanes. This made learning from experience

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[21]For some groundbreaking articles in this direction, however, *see* Halpert & Sangero, *supra note 1*; James M. Doyle, *Learning from Error in American Criminal Justice*, 100 J. CRIM. L. & CRIMINOLOGY 109 (2010); Sangero & Halpert, *supra* note 2; James M. Doyle, *An Etiology of Wrongful Convictions: Error, Safety, and Forward-Looking Accountability in Criminal Justice*, *in* WRONGFUL CONVICTION AND CRIMINAL JUSTICE REFORM: MAKING JUSTICE 56–72 (M. Zalman & J. Carrano eds., 2013).

[22]In a coauthored article with Dr. Mordechai Halpert, we have suggested applying this term to the criminal justice system: Halpert & Sangero, *supra note 1*. *See also* Sangero & Halpert, *supra* note 1, at 1300–01.

[23]Sangero & Halpert, *supra* note 1, at 1304–05.

[24]Sangero & Halpert, *supra* note 1, at 1301.

too expensive, leading to a shift in approach over a half century ago, and the birth of modern safety.[25]

At this point, the primary objective in the safety field became preventing accidents before they occur, thereby avoiding the high costs of learning through experience. The "Fly-Fix-Fly" approach was thus replaced by the "Identify-Analyze-Control" method, with its aim of "First-Time-Safe." Under the latter approach, there is systematic identification of future hazards, analysis of the probability of their occurrence, and a complete neutralization of the risk or at least its reduction to an acceptable level.[26]

Modern safety approaches such as these were implemented in other fields as well, such as transportation and engineering, and later on, in labor and medicine. These safety systems are constructed on, among other things: safety education and training, a culture of safety, a duty to report not only accidents but also incidents (near-accidents), professional risk assessment, a process of perpetual improvement, and the understanding that safety in each component of a system alone in detachment from the entire system is not sufficient for achieving system safety.

The general proposal put forth in this Article is that the First-Time-Safe approach be adopted in the field of criminal justice. Modern system-safety has been developed in fields such as military aviation, engineering, and medical diagnostic devices. The legal system should and can learn from the engineering field. For example, there is a duty in engineering safety to report not only accidents but also "incidents," defined as situations in which there was potential for harm to be caused and it was averted purely by coincidence. It is important to recognize the fact that near-miss conditions, if not rectified, most likely will develop into accidents at a later point. In contrast, "incidents" in criminal law are completely ignored. Even worse, accidents are not always investigated either.[27]

The three basic stages of the system-safety process are: Identify, Analyze, and Control. Risk assessment is vital, for it produces meaningful data to guide in prioritizing hazards, allocating resources, and evaluating the acceptability of risks associated with these hazards. The most progressive system-safety method currently applied, is known as "System-Theoretic Accident Model and Processes" or "STAMP." In the last chapter I develop a way to use this model regarding confessions. I demonstrate how the fundamentally important Identify-Analyze-Control method can and should be implemented in the system, using Leveson's STAMP model.

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[25]Sangero & Halpert, *supra* note 1, at 1296–97.

[26]Sangero & Halpert, *supra* note 1, at 1297.

[27]Sangero & Halpert, *supra* note 1, at 1299.

F. UnSafety in the Criminal Justice System

The obvious question that arises is why safety measures have yet to be implemented in criminal law. Moreover, why has the system never even adopted a Fly-Fix-Fly approach? The answers to these questions are related to the general inability to detect the occurrence of false convictions, which are typically indiscernible. This can account for the optimistic false impression that false convictions are a very rare phenomenon. Despite all indications of a conceivably very high rate of false convictions, policymakers and the public alike are certain and confident that the system performs well and that there is no need to invest resources in safety measures.[28] This aspect of criminal law is so fundamental that it amounts to a principle: what I have termed elsewhere, with Dr. Mordechai Halpert, the "Hidden Accidents Principle" of the criminal justice system.[29]

According to the Hidden Accidents Principle in criminal law, an effective feedback for the criminal justice system is implausible, even in theory. The only way to introduce safety into this system, therefore, is through comparison with fields in which mishaps are seen and can be detected. The Hidden Accidents Principle is evidence of the inadequacy of the Fly-Fix-Fly safety method for criminal law, because of the extreme difficulty of learning from the experience of past accidents in the system when they are a hidden phenomenon.

Therefore, after a deep discussion of one of the most serious hazards in criminal law — the hazard of false confessions — and of the accidents of false convictions based on false confessions, I shall develop a specific safety model, based on these discussions and on the STAMP model.

II. The Hazard of False Confessions

In the past, courts tended to view a defendant's confession, even when extracted by police interrogators, as very strong evidence that is (and should be) sufficient to attain a conviction.[30] The rationale was that a voluntary confession is the product of an overwhelming

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[28]Another possible explanation is the erroneous idea that whereas unsafe airplanes pose a risk to all of "us," an unsafe criminal justice system is a risk only to "them"—that is, potential criminals.

[29]Sangero & Halpert, *supra* note 2, at 1314–16.

[30]Boaz Sangero, Miranda *Is Not Enough: A New Justification for Demanding "Strong Corroboration" to a Confession*, 28 CARDOZO L. REV. 2791, 2794–800 (2007); Stephen C. Thaman, Miranda *in Comparative Law*, 45 ST. LOUIS U. L.J. 581, 581 (2001) ("Historically, confessions of guilt have been the 'best evidence in the whole world.' "); Talia Fischer & Issachar Rosen-Zvi, *The Confessional Penalty*, 30 CARDOZO L. REV. 871, 872 (2008).

sense of guilt.[31] Moreover, a confession is viewed as superior to any other type of evidence as direct evidence of guilt.[32] Thus, the confession has been crowned the "queen of evidence."[33]

Yet many studies have pointed to the phenomenon of false confessions.[34] According to the findings of studies conducted by the Innocence Project, of the first 225 cases in which DNA testing proved a conviction to be false, about one-quarter of those convictions had been based on a (presumably false) confession (23% of the exonerations).[35] Moreover, the National Registry of Exonerations includes 253 exonerations in cases in which the defendant had confessed.[36] Thus, on this background, skeptics can no longer continue to call into doubt the occurrence of false confessions.[37]

Other researchers have revealed the significant extent to which wrongful convictions based on false confessions occur.[38] Indeed, in only a small proportion of cases in which a claim of wrongful convic-

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[31]King v. Warickshall, (1783) 168 Eng. Rep. 234 (K.B.); *Sparf v. U.S.*, 156 U.S. 51, 55, 15 S. Ct. 273, 39 L. Ed. 343 (1895).

[32]Paul G. Cassell, Miranda*'s Social Costs: An Empirical Reassessment*, 90 Nw. U. L. REV. 387, 441 (1996).

[33]Significant support for the belief that the confession is the "queen of evidence" can be attributed to Andrey Vyshinsky, Prosecutor General of the Soviet Union and the legal mastermind behind Stalin's Great Purge during the late 1930s. *See* Harold J. Berman, *Introduction*, SOVIET CRIMINAL LAW AND PROCEDURE: THE RSFSR CODES 92 (Harold J. Berman & James W. Spindler trans., 1966); IDEAS AND FORCES IN SOVIET LEGAL HISTORY: A READER ON THE SOVIET STATE AND LAW 288 (Zigurds L. Zile ed., 1992).

[34]Sangero, *supra* note 30, at 2795.

[35]*See* INNOCENCE PROJECT, http://www.innocenceproject.org (last visited November 16, 2017) ("Astonishingly, more than 1 out of 4 people wrongfully convicted but later exonerated by DNA evidence made a false confession or incriminating statement."); SCHECK, NEUFELD & DWYER, *supra* note 5; Keith A. Findley, *Learning from Our Mistakes: A Criminal Justice Commission to Study Wrongful Convictions*, 38 CAL. W. L. REV. 333 (2002); Garrett, *supra* note 5, at 76.

[36]THE NATIONAL REGISTRY OF EXONERATIONS, EXONERATIONS BY CONTRIBUTING FACTOR, https://www.law.umich.edu/special/exoneration/Pages/ExonerationsContribFactorsByCrime.aspx (last visited November 16, 2017).

[37]Richard J. Ofshe & Richard A. Leo, *The Decision to Confess Falsely: Rational Choice and Irrational Action*, 74 DENV. U. L. REV. 979, 983 (1997); Steven A. Drizin & Marissa J. Reich, *Heeding the Lessons of History: The Need for Mandatory Recording of Police Interrogations to Accurately Assess the Reliability and Voluntariness of Confessions*, 52 DRAKE L. REV. 619, 634 (2004); Marcy Strauss, *The Sounds of Silence: Reconsidering the Invocation of the Right to Remain Silent under* Miranda, 17 WM. & MARY BILL RTS. J. 773, 809 (2009).

[38]Hugo Adam Bedau & Michael L. Radelet, *Miscarriages of Justice in Potentially Capital Cases*, 40 STAN. L. REV. 21, 56–63 (1987); Richard A. Leo & Richard J. Ofshe, *The Consequences of False Confessions: Deprivations of Liberty and Miscarriages of Justice in the Age of Psychological Interrogation*, 88 J. CRIM. L. & CRIMINOLOGY 429 (1998); Stephen A. Drizin & Richard A. Leo, *The Problem of False Confessions in the Post-DNA World*, 82 N.C. L. REV. 891, 911 (2004).

tion is made do the necessary physical conditions exist to enable DNA testing. Accordingly, it can be inferred from those cases in which DNA testing has proven a false conviction that there are in fact many more such cases of wrongful conviction,[39] which go undetected due to the Hidden Accidents Principle in criminal law. Given this unequivocal evidence of numerous false convictions based on wrongful confessions given during police interrogations, I have suggested crowning this type of confession the "*empress of wrongful convictions*."[40]

A confession of guilt is, in itself, an unusual phenomenon. A confession is prima facie suspicious evidence, for it works against the confessor's interests in exposing him to conviction and punishment. The premise is that a rational suspect will only confess if faced by overwhelming evidence against him or offered promises from the police or prosecution of a lenient punishment, or out of a belief that confessing is in fact to his benefit.[41] In contrast, confession should normally be considered suspicious and irrational when there is no significant evidence against the confessor, and no apparent reward was offered for confessing.[42]

Three different classifications of false confessions have been proposed in the psychology literature: voluntary confessions, coerced-internalized confessions, and coerced-compliant confessions.[43] The voluntary category refers to cases in which an individual turns herself into the police of her own initiative and incriminates herself in a crime she did not commit.[44] This phenomenon is most prominent in high-profile cases, such as the Lindbergh baby kidnapping in 1938, when two hundred people voluntarily

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[39]Leo & Ofshe, *supra* note 38, at 431–32; Steven B. Duke, *Does* Miranda *Protect the Innocent or the Guilty?*, 10 CHAP. L. REV. 551, 566 (2007); Sangero, *supra* note 30, at 2797; Fischer & Rosen-Zvi, *supra* note 30, at 875.

[40]Sangero, *supra* note 30, at 2800.

[41]Rinat Kitai-Sangero, *Detention for the Purpose of Interrogation as Modern "Torture,"* 85 U. DET. MERCY L. REV. 137, 148 (2008); Rinat Kitai-Sangero, *Respecting the Privilege against Self-Incrimination: A Call for Providing* Miranda *Warnings in Non-custodial Interrogations*, 42 N.M. L. REV. 203, 213–14 (2012); Daniel J. Seidmann & Alex Stein, *The Right to Silence Helps the Innocent: A Game-Theoretic Analysis of the Fifth Amendment Privilege*, 114 HARV. L. REV. 430, 464 (2000); Lawrence Rosenthal, *Against Orthodoxy:* Miranda *Is Not Prophylactic and the Constitution Is Not Perfect*, 10 CHAP. L. REV. 579, 587 (2007); Boaz Sangero & Mordechai Halpert, *Proposal to Reverse the View of a Confession: From Key Evidence Requiring Corroboration to Corroboration for Key Evidence*, 44 U. MICH. J. L. REFORM 511 (2011); Sangero, *supra* note 30, at 2800.

[42]Sangero, *supra* note 30, at 2800; Kitai-Sangero, *supra* note 41, at 214.

[43]SAUL KASSIN & LAWRENCE WRIGHTSMAN, THE PSYCHOLOGY OF EVIDENCE AND TRIAL PROCEDURE 67–94 (1985); Saul Kassin, *The Psychology of Confessions*, 4 ANN. REV. L. SOC. SCI. 193, 195 (2008). *See also* Sangero, *supra* note 30, at 2798–800.

[44]Kassin, *supra* note 43, at 195.

confessed to the crime,[45] and the 1947 Elizabeth Short murder, to which over fifty people confessed voluntarily.[46] Various reasons have been offered to explain this type of confession, such as a pathological need for attention or self-punishment, a sense of guilt or delusions, a perception of tangible gain from confessing, or the aim to protect someone else.[47] This category of voluntary confessors also includes people who cannot differentiate between fantasy and reality; who wish to atone for past, prohibited behavior (real or imagined); or who have self-destructive tendencies.[48]

The suspect's personality can also be a factor in false confessions. Some people are more vulnerable to external pressure than others and thus, are at a higher risk of falsely confessing,[49] particularly those who tend toward compliance in social situations due to their eagerness to please others and avoid confrontation, especially with authority figures.[50] People who suffer from anxiety, fear, depression, delusions, and other psychological disorders are more vulnerable than others,[51] as are the intellectually disabled or mentally impaired.[52] Moreover, juveniles are at the highest risk of confessing to something they did not do.[53] As Maimonides recognized, "The court shall not put a man to death or flog him on his own admission . . . perhaps he was one of those who are in misery, bitter in soul, who long for death . . . perhaps this was the reason that prompted him to confess to a crime he had not committed, in order that he be put to death."[54]

Studies conducted in recent decades have shown that the varied reasons for voluntary false confessions can even border on the bizarre.[55] People have falsely confessed so as to avoid the burden of a trial (for minor offenses), out of a fear of the death penalty, to

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[45]Kassin, *supra* note 43, at 195.

[46]Kassin, *supra* note 43, at 195.

[47]Kassin, *supra* note 43, at 195.

[48]Sangero, *supra* note 30, at 2798–800 (based on the Israeli Justice Goldberg Commission report, Report of the Commission Regarding Convictions Based Solely on Confessions and Regarding the Grounds for Retrials (1994) [hereinafter Goldberg Commission Report]; Duke, *supra* note 39, at 565.

[49]Kassin, *supra* note 43, at 203; *see also* Sangero, *supra* note 30, at 2798.

[50]Kassin, *supra* note 43, at 203; *see also* Sangero, *supra* note 30, at 2798.

[51]Kassin, *supra* note 43, at 203; *see also* Sangero, *supra* note 30, at 2798.

[52]Kassin, *supra* note 43 at 206; Paul G. Cassell, *The Guilty and the "Innocent": An Examination of Alleged Cases of Wrongful Conviction from False Confessions*, 22 Harv. J.L. & Pub. Pol'y 523, 583 (1999); Sangero, *supra* note 30, at 2809; Drizin & Leo, *supra* note 38, at 919.

[53]Kassin, *supra* note 43, at 203–05.

[54]Maimonides, Mishneh Torah [Code of Jewish Law], Book of Judges, *Hilchot Sanhedrin* [*Laws of the Sanhedrin*] 18:6 (author's translation).

[55]Sangero, *supra* note 30, at 2799–800.

cover up for friends, or due to promised financial reward from a criminal organization. Some have falsely confessed in the hope that this would prevent their names from being published in the newspapers, and others in order to make it in time for a university exam or important chess tournament. There are those who have confessed fearing they would be exposed as adulterers or because they were too drunk to remember what happened. Some have even given a false confession as a joke or to impress a girlfriend. In one case, an inmate confessed to a murder he did not commit to prove that a wrongful conviction is possible—and he succeeded. Reality, therefore, is often stranger than fiction.[56]

Coerced-internalized false confessions is the second category of false confession. It refers to instances in which an innocent person becomes convinced during the course of the police interrogation that he is actually guilty of what he is being accused of.[57] This can occur with a suspect who was under the influence of drugs or alcohol during the event in question and does not recall clearly what occurred; in such circumstances, he may be convinced to believe the police's version of events.[58] In other cases, even an innocent suspect who was not under the influence of drugs or alcohol may be led, due to police interrogation techniques, to believe that he is guilty and simply repressing the painful event.[59] In one such case, a fourteen-year-old confessed to the stabbing and murder of his sister after police inter-

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[56]*See* Bedau & Radelet, *supra* note 38, at 58–63; ROYAL COMMISSION ON CRIMINAL JUSTICE: REPORT PRESENTED TO PARLIAMENT (July 1993) (Viscount Runciman of Doxford, Chairman); GOLDBERG COMMISSION REPORT, *supra* note 48; ARYE RATTNER, CONVICTING THE INNOCENT, WHEN JUSTICE GOES WRONG (1983) (unpublished PhD dissertation, Ohio State University) (on file with author); Arye Rattner, *Convicted but Innocent: Wrongful Conviction and the Criminal Justice System*, 12 LAW & HUM. BEHAV. 283 (1988). Another central factor in false confessions is suspects' misguided conviction that after making a confession that was elicited by police interrogators through improper methods, additional confessions have no weight. At times, a suspect may be deceived into believing this and then make a subsequent confession that is facially valid as it was not extracted using improper methods. *See* Peter Mirfield, *Successive Confessions and the Poisonous Tree*, 1996 CRIM. L. REV. 554. However, contrast this to the ruling on this matter in *Missouri v. Seibert*, 542 U.S. 600, 124 S. Ct. 2601, 159 L. Ed. 2d 643 (2004). *See also* Charles J. Ogletree, Commentary, *Are Confessions Really Good for the Soul?: A Proposal to Mirandize* Miranda, 100 HARV. L. REV. 1826, 1840 (1987); Sangero, *supra* note 30, at 2800.

[57]Kassin, *supra* note 43, at 195–96; Gail Johnson, *False Confessions and Fundamental Fairness: The Need for Electronic Recording of Custodial Interrogations*, 6 B.U. PUB. INT. L.J. 719, 719 (1997); Duke, *supra* note 39, at 566; Sangero, *supra* note 30, at 2798.

[58]Deborah Young, *Unnecessary Evil: Police Lying in Interrogations*, 28 CONN. L. REV. 425, 462 (1996).

[59]DAVID WOLCHOVER & HEATON ARMSTRONG, ON CONFESSION EVIDENCE 95 (1996); Welsh S. White, *False Confessions and the Constitution: Safeguards against Untrustworthy Confessions*, 32 HARV. C.R.-C.L. L. REV. 105, 128 (1997).

rogators misled him into believing that they had physical evidence of his guilt and that he had committed the crime. The charges were eventually dropped only after the police found the victim's blood on a neighbor's clothing.[60] Even when not subject to stressful conditions, people are quite easily manipulated into believing that their perception of reality is wrong.[61]

The third, and central category of confessions, coerced-compliant confessions, is connected to the second one, as the suspect's certainty of his guilt usually is the result of the pressure of being interrogated by the police.[62] In this type of instance, a suspect will falsely confess for short-term benefits, such as being allowed to sleep, left alone, or even released.[63]

The central doctrine on confessions in American law was set in *Miranda v. Arizona*,[64] in which the Supreme Court ruled that, in principle, a custodial interrogation constitutes a violation of Fifth Amendment privilege against self-incrimination. Recognizing that coercive pressure is inherent to custodial interrogations, the Court concluded that "without proper safeguards the process of in-custody interrogation of persons suspected or accused of crime contains inherently compelling pressures which work to undermine the individual's will to resist and to compel him to speak where he would not otherwise do so freely."[65] The Court further stressed that "the modern practice of in-custody interrogation is psychologically rather than physically oriented,"[66] and that "[u]adequate protective devices are employed to dispel the compulsion inherent in custodial sur-

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[60]Kassin, *supra* note 43, at 195–96.

[61]Patrick A. Malone, "*You Have the Right to Remain Silent":* Miranda *after Twenty Years* (1986), *reprinted in* THE MIRANDA DEBATE: LAW, JUSTICE AND POLICING 75, 82 (Richard A. Leo & George C. Thomas III eds., 1998) [hereinafter THE MIRANDA DEBATE].

[62]Sangero, *supra* note 30, at 2798–99.

[63]Kassin, *supra* note 43, at 195. A prominent illustration of such cases is the Norfolk Four affair, in which four innocent young navy soldiers falsely confessed to a rape and murder — TOM WELLS & RICHARD A. LEO, THE WRONG GUYS—MURDER, FALSE CONFESSIONS, AND THE NORFOLK FOUR (2008).

[64]384 U.S. 436 (1966); *see also* RONALD N. BOYCE & ROLLIN M. PERKINS, CRIMINAL LAW AND PROCEDURE—CASES AND MATERIALS 218–26 (8th ed. 1999). The *Miranda* ruling was confirmed in *Dickerson v. U.S.*, 530 U.S. 428, 120 S. Ct. 2326, 147 L. Ed. 2d 405 (2000). For a detailed critique of the *Miranda* rules and a proposal to nullify them, see JOSEPH D. GRANO, CONFESSIONS, TRUTH, AND THE LAW (1993). For a collection of two dozen articles dealing with the *Miranda* ruling, *see* THE MIRANDA DEBATE, *supra* note 61.

[65]*Miranda v. Arizona*, 384 U.S. 436, 467, 86 S. Ct. 1602, 16 L. Ed. 2d 694, 10 A.L.R.3d 974 (1966).

[66]*Miranda*, 384 U.S. at 448.

roundings, no statement obtained from the defendant can truly be the product of his free choice."[67]

Accordingly, since the *Miranda* ruling, custodial police interrogators must advise suspects of their rights upon arrest: the right to remain silent, as anything they say can be used against them in court; the right to consult with a lawyer and have a lawyer present during interrogation; and the right to an appointed attorney, prior to any questioning, if they cannot afford one. Under the *Miranda* rule, therefore, a confession obtained during the infringement of these rights is a violation of the Fifth Amendment and, therefore, inadmissible in court.[68]

The *Miranda* ruling was a serious attempt at addressing the problem of involuntary confessions. The *Miranda* rule diminishes the risk of police interrogators exerting physical and psychological pressure on suspects that can prompt them to involuntarily confess. However, even after *Miranda*, there remains a significant incidence of false confessions and wrongful convictions based on such confessions. Apparently, although police practice has (generally) shifted from coercive interrogation to what scholars term more sophisticated "psychological" interrogation techniques, the number of false confessions is still considerable.[69]

To begin with detention, this in and of itself is a risk factor for eliciting false confessions. Despite the presumption of innocence, conditions in detention are extremely harsh, at times even worse than prison conditions.[70] In her Article on conditions of confinement, Rinat Kitai-Sangero noted,

> Conditions of pretrial detainees in custody are harsh all over the world . . . in some places also deplorable and humiliating. . . . Many detainees are housed in old facilities that are inadequate for their needs. . . . Detainees may suffer from poor ventilation and lighting, a lack of direct sunlight, defects in food, and lack of sanitary facilities. Many jails suffer from severe overcrowding and often operate beyond their capacity . . . a small space with almost no privacy. The fact that

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[67] *Miranda*, 384 U.S. at 458.

[68] Furthermore, there are other rules that, in rare cases, may lead to the exclusion of involuntary confessions that have been obtained in violation of the Constitution. *See* MCCORMICK ON EVIDENCE 226–42 (JOHN W. STRONG ed., 5th ed. 1999).

[69] *See* Leo & Ofshe, *supra* note 38. S*ee also* Laurie Magid, *The* Miranda *Debate: Questions Past, Present and Future*, 36 HOUS. L. REV. 1251 (1999) (book review).

[70] Rinat Kitai-Sangero, *Conditions of Confinement—The Duty to Grant the Greatest Possible Liberty for Pretrial Detainees*, 43 CRIM. L. BULL. 250 (2007); Richard S. Frase, *Comparative Criminal Justice as a Guide to American Law Reform: How Do the French Do It, How Can We Find Out, and Why Should We Care?*, 78 CAL. L. REV. 542, 594 (1990); David C. Gorlin, Note: *Evaluating Punishment in Purgatory: The Need to Separate Pretrial Detainees' Conditions-of-Confinement Claims from Inadequate Eighth Amendment Analysis*, 108 MICH. L. REV. 417, 419 (2009).

> the number of detainees occasionally exceeds the bed capacity, forces detainees to "sleep on mattresses spread on floors in hallways and next to urinals.[71]

In such harsh conditions—even before pressure (legitimate or illegitimate) is applied by police interrogators—it would not be so unlikely for some people to confess to a crime that they did not commit, if this would lead to immediate release from police custody and spare them the anguish of being separated from family and friends in degrading physical conditions. In addition, informing a suspect of his or her rights does not counteract, in and of itself, the coercive atmosphere created by custodial interrogation.[72]

Studies analyzing interrogation tapes and conducting surveys among police interrogators have found that over 80% of suspects waive their right to remain silent and to consult with counsel.[73] In a lab simulation of a police interrogation, moreover, 81% of the subjects designated "innocent" waived their right to remain silent, whereas only 36% of the "guilty" subjects did the same.[74] This has been termed the "innocence-confession paradox,"[75] in that the *Miranda* warnings do not sufficiently protect the innocent, who are most in need of the intended protection.[76] Innocent suspects waive their right to remain silent as they believe that, having done no wrong and having nothing to hide,[77] they will persuade the police interrogator of their innocence;[78] this exposes them to the risk of making a false confession. In particular, someone with no criminal record will have a greater tendency to waive his or her right to remain silent.[79]

Many suspects are motivated to talk, as they want to persuade

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[71]Kitai-Sangero, *supra* note 70 (citing *Rhodes v. Chapman*, 452 U.S. 337, 355, 101 S. Ct. 2392, 69 L. Ed. 2d 59 (1981)).

[72]Alfredo Garcia, *Is* Miranda *Dead, Was It Overruled, Or Is It Irrelevant*?, 10 ST. THOMAS L. REV. 461, 473 (1998); Duke, *supra* note 39, at 566.

[73]Kassin, *supra* note 43, at 200. *See also* Sangero & Halpert, *supra* note 41, at 517; Strauss, *supra* note 37, at 774; Gordon Van Kessel, *The Suspect as a Source of Testimonial Evidence: A Comparison of the English and American Approaches*, 38 HASTINGS L.J. 1, 110 (1986); Raymond J. Toney, *English Criminal Procedure under Article 6 of the European Convention on Human Rights: Implications for Custodial Interrogation Practices*, 24 HOUS. J. INT'L L. 411, 427 (2002).

[74]Kassin, *supra* note 43; Sangero & Halpert, *supra* note 41.

[75]Kassin, *supra* note 43, at 206.

[76]Kassin, *supra* note 43, at 207.

[77]Kassin, *supra* note 43, at 207.

[78]Kassin, *supra* note 43, at 200.

[79]Kassin, *supra* note 43, at 200; Richard L. Leo, Miranda's *Revenge: Police Interrogation as a Confidence Game*, 30 LAW & SOC'Y REV. 259 (1996). For a compelling argument that the right to remain silent is desirable in that it increases the likelihood that fact-finders will believe the innocent and thus be able to distinguish

the police of their innocence and believe in their ability to do so,[80] even guilty suspects who believe they will be able to successfully lie.[81] Suspects talk so that the police will not think they are guilty,[82] some in an attempt to discover what the police know about them.[83] It has been contended that the conclusion in *Miranda* that a custodial interrogation is inherently coercive cannot be reconciled with the assertion that the coercion disappears as soon as the suspect is advised of his or her rights.[84] The *Miranda* ruling suffers, it is claimed, from an internal contradiction.[85] Suspects who are exposed to the coercion inherent to custodial interrogations are unable to make an autonomous decision as to whether to waive their rights.[86]

In American case law, the use of deceit by police interrogators, even during the course of interrogation, is not regarded as prohibited and, in any event, does not render the confession elicited through its use inadmissible.[87] Yet presenting fabricated incriminating evidence to a suspect, such as a supposed fingerprint or DNA match, creates a significant risk of eliciting a false confession,[88] which has been shown both in actual cases and psychological experiments.[89] Four hazards arise when the police show a suspect forensic evidence

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between the innocent (who will tend to talk) and guilty (who will tend to remain silent), *see* Daniel J. Seidmann & Alex Stein, *The Right to Silence Helps the Innocent: A Game Theoretic Analysis of the Fifth Amendment Privilege*, 114 HARV. L. REV. 430 (2000); Alex Stein, *The Right to Silence Helps the Innocent: A Response to Critics*, 30 CARDOZO L. REV. 1115 (2008); *see also* Sangero & Halpert, *supra* note 41, at 518.

[80]George C. Thomas III, Miranda*'s Illusion: Telling Stories in the Police Interrogation Room*, 81 TEX. L. REV. 1091, 1095 (2003) (book review of WELSH S. WHITE, MIRANDA'S WANING PROTECTIONS (2001)); Paul Shechtman, *An Essay on* Miranda*'s Fortieth Birthday*, 10 CHAP. L. REV. 655, 656 (2007).

[81]Thomas, *supra* note 80, at 1110; Shechtman, *supra* note 80.

[82]Shechtman, *supra* note 80.

[83]Shechtman, *supra* note 80.

[84]Steven Penney, *Theories of Confession Admissibility: A Historical View*, 25 AM. J. CRIM. L. 309, 311 (1998).

[85]Louis Michael Seidman, Brown *and* Miranda, 80 CAL. L. REV. 673, 740 (1992).

[86]Penney, *supra* note 84, at 371.

[87]*See* Amanda L. Prebble, *Manipulated by* Miranda: *A Critical Analysis of Bright Lines and Voluntary Confessions under* United States v. Dickerson, 68 U. CIN. L. REV. 555, 583 (1999). *See also* White, *supra* note 59, at 105; Richard A. Leo, *From Coercion to Deception: The Changing Nature of Police Interrogation in America*, 18 CRIME L. & SOC. CHANGE 35 (1992).

[88]Kassin, *supra* note 43, at 202–03; Brandon L. Garrett, *The Substance of False Confessions,* 62 STAN. L. REV. 1051, 1054 (2010). *See also* Sangero & Halpert, *supra* note 41, at 520–21.

[89]Kassin, *supra* note 43, at 202–03.

supposedly pointing to his guilt:[90] The first is that the suspect could become persuaded that he actually committed the crime he is accused of.[91] The second risk is that he may come to believe that it is pointless to continue denying guilt even if he is innocent.[92] A third danger is that the suspect might be traumatized into thinking that the police are purposely incriminating him.[93] Fourth, the suspect could get trapped in a web of lies, which confirms for the police their mistaken presumption that he is guilty.[94] In light of these risks, the English Court of Appeals ruled that although the police bear no obligation to disclose to suspects all of the investigative evidence they have against them, a suspect must not be actively misled.[95]

"Maximization" and "minimization" tactics are powerful tools for extracting false confessions.[96] Minimization techniques include downplaying the severity of the offense in question, faking sympathy for the suspect, blaming the victim, and suggesting reasonable explanations for the crime.[97] Maximization tactics include showing confidence in the suspect's guilt despite a lack of strong incriminating evidence,[98] expressing disappointment in the suspect's responses in the interrogation,[99] accusing the suspect of a more serious offense than is actually being investigated,[100] and humiliating the suspect.[101]

An empirical study conducted by Richard Leo found a strong correlation between the number of different tactics used by an interrogator and the likelihood of extracting a confession. Moreover, the longer the interrogation, the greater the chances of obtaining a

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[90]Boaz Sangero, *Using Tricks and Cover Agents for Extracting Confessions*, 9 C.L.B. L. STUDIES 399, 415 (2011) (in Hebrew).

[91]Sangero, *supra* note 90, at 415.

[92]R. v. Oickle [2000] 2 S.C.R. 3, section 43; Sangero & Halpert, *supra* note 41, at 520; Thomas, *supra* note 80, at 1118.

[93]Young, *supra* note 58, at 469.

[94]Sangero & Halpert, *supra* note 41, at 520.

[95]R. v. Imran & Hussain, 1997 CRIM. L. REV. 754.

[96]Alan Hirsch, *Threats, Promises, and False Confessions: Lessons of Slavery*, 49 HOW. L.J. 31, 33–35 (2005); GISLI H. GUDJONSSON, THE PSYCHOLOGY OF INTERROGATIONS AND CONFESSIONS: A HANDBOOK 203–04 (2003).

[97]Magid, *supra* note 69, at 1307; Malone, *supra* note 61, at 80; WOLCHOVER & ARMSTRONG, *supra* note 59, at 70; GRANO, *supra* note 64; Young, *supra* note 58, at 430–31.

[98]WOLCHOVER & ARMSTRONG, *supra* note 59, at 69; White, *supra* note 59, at 151.

[99]WOLCHOVER & ARMSTRONG, *supra* note 59, at 77.

[100]WOLCHOVER & ARMSTRONG, *supra* note 59, at 73.

[101]WOLCHOVER & ARMSTRONG, *supra* note 59, at 79; Yale Kamisar, *On the Fortieth Anniversary of the* Miranda *Case: Why We Needed It, How We Got It—And What Happened to It*, 5 OHIO ST. J. CRIM. L. 163, 187 (2007).

confession.[102] These findings were confirmed by an experiment that simulated realistic conditions, which showed the extent to which certain interrogation tactics increase the likelihood of a confession, particularly a false one: whereas the probability that a guilty interrogee will confess doubles, the likelihood of an innocent person confessing increases sevenfold.[103]

I contend that a fundamental error lies at the foundation of police interrogative tactics.[104] As will be shown further on, confessions should be accorded relatively little weight as proof of guilt given the fact that false confessions are not a rare occurrence and factfinders cannot distinguish them from true confessions. Regardless, however, a confession is still wrongly taken to be compelling evidence of guilt, leading police interrogators to go to great lengths to extract one.[105] The irony, however, is that the greater the effort made to get a confession by any means, even through questionable tactics (such as jailhouse snitches or falsifying incriminating evidence), the less reliable the confession. In addition, the measures police interrogators take to get a confession might not only lead a suspect to falsely confess but also prevent factfinders from identifying a false confession. This could occur, for example, if interrogators were to contaminate a confession by giving the suspect details of the crime, and this knowledge later on reinforces the reliability of his confession as evidence in court.[106]

The Reid Technique of Interviewing and Interrogation, a prevalent practice in American police departments,[107] reinforces police's "tunnel vision" as to a suspect's guilt and leads to false confessions. The typical interrogation is intensely confrontational.[108] The Reid protocol directs interrogators to hamper any attempt by the suspect to deny his guilt and provide an alternative version.[109] Police are advised to employ both *minimization* techniques as well as *maximization* tactics

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[102]Richard A. Leo, *Criminal Law: Inside the Interrogation Room*, 86 J. Crim. L. & Criminology 266, 292–93 (1996); Kassin, *supra* note 43, at 201–02; Garrett, *supra* note 88; Leo & Ofshe, *supra* note 38; Sangero & Halpert, *supra* note 41, at 520.

[103]Melissa B. Russano et al., *Investigating True and False Confessions within a Novel Experimental Paradigm*, 16 Psychol. Sci. 481 (2005). *See also* Sangero & Halpert, *supra* note 41, at 521.

[104]Sangero, *supra* note 90, at 409–10.

[105]Alberto B. Lopez, *$10 and a Denim Jacket? A Model Statute for Compensating the Wrongfully Convicted*, 36 Ga. L. Rev. 665, 682 (2002).

[106]Sangero, *supra* note 90.

[107]Dan Simon, In Doubt—The Psychology of the Criminal Justice Process 121–22 (2012); Brandon L. Garrett, *Interrogation Policies*, 49 U. Richmond L. Rev. 895 (2015).

[108]Simon, *supra* note 107, at 132.

[109]Simon, *supra* note 107, at 133; Garrett, *supra* note 107.

when interrogating the suspect. Psychological experimental studies have found that suspects usually understand minimizing themes as an implicit promise of leniency and maximizing themes as an implicit threat of severe punishment, while the use of a combination of the techniques considerably increases false confessions.[110] Indeed, there is no indication that applying the Reid model tends to induce confessions from only the guilty.[111] The use of the Reid method in police interrogations is a clear example of how a criminal justice system lacking awareness as to the importance of safety is likely to employ practices that undermine safety. In contrast, the English PEACE method is a good example of an attempt to implement safety in police interrogations, and will be described further on.

III. Convicting the Innocent Based on a False Confession

We know today that false confessions are not a rare occurrence, and many are submitted as evidence in court. How can the legal system effectively contend with this phenomenon?

A. The Insufficiency of the Corroboration Requirement

As explained above, many suspects give a confession due to psychological pressures exerted on them during police interrogation. Yet despite being coerced, such confessions are often viewed as voluntary because the suspects were advised of their *Miranda* rights. Moreover, a considerable number of false confessions were given voluntarily, without any illegitimate pressure on the part of the police interrogators.[112] As I will demonstrate below, such cases illustrate that it is not sufficient to address (in legislation and the case law) the external factors causing false confessions (illegitimate pressure from interrogators); rather, the internal factors that impel an individual to make a false confession must also be considered. American law, it will be shown, does not make a serious attempt at contending with the risk of a false confession that is voluntarily given.

In *Escobedo v. Illinois*, Justice Arthur Goldberg commented that:

> We have also learned the companion lesson of history, ancient and modern, that a system of criminal law which comes to depend on the confession will, in the long run, be less reliable and more subject to abuses than a system which depends on extrinsic evidence independently secured through skillful investigation.[113]

American law only appears to provide a rule that copes adequately with the possibility that a confession, even if voluntary, might be false. Under this rule, for a person to be convicted on the basis of

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[110]SIMON, *supra* note 107, at 137.

[111]SIMON, *supra* note 107, at 139. *See also* Brandon L. Garrett, *Contaminated Confessions Revisited*, 101 VA. L. REV. 395 (2015).

[112]Bedau & Radelet, *supra* note 38, at 56–63.

[113]378 U.S. 478, 490 (1964).

his out-of-court confession, it must be corroborated by other evidence at trial. Such a rule is applied in many American state jurisdictions, through either legislation or the case law.[114] It would seem, then, that American law has a satisfactory requirement for ensuring that a confession is not false. However, upon closer examination, the contents of the corroboration requirement emerge as not serving the purpose for which the rule is intended.

Below I propose an enhanced requirement for *strong* corroboration of a confession at trial, with two central objectives. The first is the reduction of the fear that a confession could be false even when voluntary, and the second is to ensure that police investigators do not limit themselves to interrogating a suspect and attempting to extract a confession, but rather employ sophisticated investigative techniques and make a relentless effort to uncover objective, tangible evidence that is extrinsic to the suspect, aiming at pursuing the truth.

The traditional formulation of this requirement in American law mandates that there be some evidence other than the confession that tends to establish the corpus delicti.[115] Only "slight" corroborative evidence is required, not evidence that proves beyond a reasonable doubt.[116] "Corpus delicti" literally means "the body of the crime." The current American corroborative evidence requirement relates therefore only to the actual commission of the offense in question and not to whether the accused is the person who actually committed it. In a criminal trial, there are three main elements that the prosecution must usually prove: (1) that an injury or harm occurred constituting the crime, (2) that this injury or harm was caused in a criminal manner, and (3) that the accused was the person who inflicted this injury or harm.[117] Whereas Wigmore maintains that corpus delicti relates only to the first of these three elements, most U.S. courts have defined it as including both the first and second elements. Accordingly, the corroborating evidence must tend to point to the existence of the harm or injury constituting the offense and indicate that this harm or injury was the result of a criminal activity.

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[114] *See e.g.*, the survey in Mccormick, *supra* note 68, at 212. *See also* Corey J. Ayling, Comment, *Corroborating Confessions: An Empirical Analysis of Legal Safeguards against False Confessions*, 1984 Wis. L. Rev. 1121 (1984).

[115] Opper v. United States, 384 U.S. 84, 93 (1954); Sangero, *supra* note 30, at 2803; Fischer & Rosen-Zvi, *supra* note 30, at 885–86. In offenses with no tangible corpus delicti, the corroboration must implicate the accused; Smith v. United States, 348 U.S. 147, 154 (1954).

[116] Mccormick, *supra* note 68, at 214.

[117] Mccormick, *supra* note 68, at 214.

There is not, however, a need to show that the accused is the guilty perpetrator.[118]

Yet a requirement for evidence of the actual commission of the crime, in addition to the accused's confession, could counteract some false confessions and prevent wrongful convictions. It would also save the legal system the tremendous embarrassment of convicting someone for a crime that subsequently emerges as never having been committed, such as when a person is convicted of murder and the alleged "victim" is later found to be alive.[119] Such circumstances account for only a small minority of the cases of false confessions and wrongful convictions, however. In the overwhelming majority of cases, the police have strong evidence that a crime was in fact committed, and the central question relating to a confession is whether the suspect is the actual perpetrator of the crime. It is precisely this question that the American corroboration requirement fails to address and, thereby, facilitates the conviction of innocent suspects who confess. The question of whether a crime was actually committed is meaningless, then, if deliberated in respect to a person who was not involved in the incident. When the wrong person is charged, proof that a crime was committed indicates nothing as to the involvement or guilt of this person in relation to the crime.

The misguided notion of limiting the corroboration requirement to proof of the corpus delicti prevails also in the literature. Thus, for example, Wigmore held the corroboration requirement to be unnecessary, while McCormick has maintained that, in light of various doctrines, particularly those based on the Fifth Amendment, the *Miranda* rules, and the voluntariness requirement for confessions, there is no need for additional rules to guide police investigators (including the corroboration requirement).[120] This approach is clearly mistaken. Although the *Miranda* rules and it's like do indeed alleviate the risk of physical pressure being exerted on suspects by police interrogators, which will induce suspects to make involuntary confessions, methods of psychological interrogation are also liable to result in involuntary confessions. The *Miranda* rules are presumably designed to also contend with the latter hazard, but as explained, merely informing a suspect of his rights is not sufficient to eliminate the risk. Furthermore, studies show that even a voluntary confession can be false. Last, if the goal is not just to prevent investigators from abusing interrogated suspects (which is certainly an important, albeit

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[118]McCormick, *supra* note 68, at 214 (for the positions of both Wigmore and McCormick on this issue).

[119]Leo & Ofshe, *supra* note 38, at 450–51. In 1990, in Texas, a suspect confessed to the murder of his ex-girlfriend after failing a polygraph test. She was later found alive and well in Arizona.

[120]McCormick, *supra* note 68, at 213–14 (for the positions of both Wigmore and McCormick on this issue).

narrow, objective) but also to direct them toward sophisticated techniques and persisting at a proper investigation aimed at finding objective, tangible evidence extrinsic to the suspect (such as forensic evidence), then the corroboration requirement is not only desirable but essential.[121]

Elsewhere, I have recommended instituting a statutory strong corroboration requirement for convicting based on a confession. This mandatory condition would require strong, autonomous corroboration of the allegation that the defendant is the perpetrator of the crime.[122] Yet even this stronger requirement would not always suffice to prevent a false conviction, due to the light evidentiary weight that should be accorded to a confession.

B. Fact-Finders (In)ability to Discern True from False Confessions

In a world in which the law-enforcement system could distinguish between what is true and what is false, it can be assumed that false confessions would be filtered out. Yet, research has shown that police investigators, prosecutors, judges, and juries are unable to distinguish between a true confession and a false one.[123] An interesting experimental study uncovered two perhaps counterintuitive findings. The first is that police investigators do not identify false confessions any better than students. The only differences are that investigators are very sure of themselves, even when they are wrong, and operate under a misguided conception of the suspect's guilt; they are therefore biased and inclined to believe false confessions, and tend not to believe denials. Second, both police investigators and students are unable to discern true confessions from false confessions to the point that when there is an equal number of true and false confessions, the same results would be reached with a simple flip of a coin.[124]

The interrogation process is usually triggered by a baseless as-

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[121]It is important to also note that the Supreme Court decision in *Opper v. U.S.*, 348 U.S. 84, 75 S. Ct. 158, 99 L. Ed. 101, 45 A.L.R.2d 1308 (1954) offered an alternative approach to the corroboration requirement, whereby rather than evidence supporting the corpus delicti, it is necessary to present "substantial independent evidence which would tend to establish the trustworthiness of the statement." *Opper*, 348 U.S. at 93. S*ee also* MCCORMICK, *supra* note 68, at 215. As explained by McCormick, this requirement is even weaker than the weak requirement that a confession be corroborated in regard to the corpus delicti. MCCORMICK, *supra* note 68, at 215–16. For further discussion, *see* Sangero, *supra* note 30, at 2805–06.

[122]Sangero, *supra* note 30, at 2818–26.

[123]Danny Ciraco, *Reverse Engineering*, 11 W.R.L.S.I. 41, 51–52 (2001); Saul M. Kassin, *Human Judges of Truth, Deception, and Credibility: Confident but Erroneous*, 23 CARDOZO L. REV. 809, 812 (2002).

[124]Saul M. Kassin, Christian A. Meissner, & Rebecca J. Norwick, *"I'd Know a False Confession if I Saw One": A Comparative Study of College Students and*

sumption that the suspect is lying.[125] To supposedly assist police investigators in discerning whether a confession is true or false, the Reid protocol sets out what is known as the Behavioral Analysis Interview (BAI) method, listing supposed indicators of lying, such as gaze aversion. However, not only is there is no scientific support for these indicators, but research has shown that such physical cues are in no way informative for distinguishing between deceit and truth-telling.[126] As Dan Simon concludes, "[T]BAI protocol amounts to a cacophony of commonly held but poorly diagnostic intuitions. Its validity is hardly reinforced by its conjectural propositions and folksy aphorisms. Yet the protocol continues to be the leading interrogation tool used by law enforcement agencies across North America."[127]

In the context of the trial proceedings, moreover, Richard A. Leo and Richard J. Ofshe showed, in a study of sixty false confessions, that 73% led to wrongful convictions.[128] A more comprehensive study by Stephen A. Drizin and Leo similarly found that 86% of the 120 false confessions that went to trial led to wrongful convictions.[129] In addition, the work of the Innocence Project has exposed the fact that false confessions lead to wrongful convictions, and that factfinders, be they judges or jurors, fail to recognize the falsity of these confessions.[130]

A central reason behind fact-finders' inability to identify false confessions is that police investigators contaminate the confessions by feeding "inside information" to the confessing suspect, which is then included in the confession.[131] Brandon Garrett conducted two sweeping studies on this matter that encompassed sixty-three rape and murder convictions based on false confessions. The first study examined forty Innocence Project cases, and the second study looked at twenty-three additional such cases.

In all the sixty-three cases, post-conviction DNA testing assisted in exposing the confessions as false. In seventeen of the sixty-three cases, DNA testing had excluded the defendants already at the time

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Police Investigators, 29 Law & Hum. Behav. 211 (2005). *See also* the references to additional studies with similar findings in Kassin, Meissner, & Norwick, *supra* at 212, 222; Ciraco, *supra* note 123.

[125]Simon, *supra* note 107, at 207.

[126]Simon, *supra* note 107, at 122–32.

[127]Simon, *supra* note 107, at 131.

[128]Leo & Ofshe, *supra* note 38.

[129]Drizin & Leo, *supra* note 38, at 993.

[130]*See* Garrett, *supra* note 5, at 76; Garrett, *supra* note 88. *See also* Richard A. Leo & Deborah Davis, *From False Confession to Wrongful Conviction: Seven Psychological Processes*, 32 J. Psychiatry & L. 9, 19–20 (2010).

[131]For the phenomenon of interrogation contamination, *see* Richard A. Leo, *Why Interrogation Contamination Occurs*, 11 Ohio St. J. Crim. L. 193 (2013).

of their trials, but they were nevertheless found guilty. As described by Garrett, confessions "trump[] DNA."[132]

Of the sixty-three confessions, fifty-nine were not simple admissions of "I did it" but detailed statements precisely describing the commission of the crime.[133] And in many of these cases, the prosecution argued at trial that these were details that only the true perpetrator could have known, and claimed that they had not been revealed to the defendant, either inadvertently or intentionally, by the police investigators.[134] A great number of the fifty-nine false confessions in those studies had to have been contaminated by the police, despite police testimony to the contrary in court. Because of such contamination and its subsequent denial, it is nearly impossible for judges and jurors to discern false confessions. A confession, especially one that includes "inside information," blinds fact-finders to the point that they tend to ignore contradictory evidence, such as an alibi and even DNA evidence.[135] Furthermore, the tainting of a confession also has an impact on the appeal and post-conviction review processes.[136]

There are, then, a number of reasons that factfinders fail to identify false confessions.[137] To begin with, the mistaken belief that a person would not confess to a crime he did not commit continues to persist among both judges and jurors, to the extent that some may even completely ignore the possibility that a confession could be false.[138] Second, as studies have shown, nobody is able to discern a true confession from a false one.[139] Third, the tainting of confessions by police investigators[140] seriously impedes the ability of judges and jurors to identify a false confession. Fourth, judges and jurors, like the police and prosecutors, often also hold a distorted perception of the defendant's guilt.[141] This misconception is reinforced by the presence of correct details of the crime (especially "inside information") in the defendant's confession, which are interpreted as supporting the validity of the confession. When there are inaccurate details in a

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[132]Garrett, *supra* note 111.

[133]Garrett, *supra* note 88, at 1054; Garrett, *supra* note 111.

[134]Garrett, *supra* note 111.

[135]Garrett, *supra* note 111.

[136]Garrett, *supra* note 111.

[137]Sangero & Halpert, *supra* note 41, at 526–28; White, *supra* note 59, at 108; Drizin & Leo, *supra* note 38, at 910; Hirsch, *supra* note 67, at 33; Drizin & Reich, *supra* note 37, at 637; Fischer & Rosen-Zvi, *supra* note 30, at 881.

[138]Richard A. Leo, *False Confessions: Causes, Consequences, and Implications*, 37 J. Am. Acad. Psychiatry L. 332, 341 (2009).

[139]Kassin, Meissner, & Norwick, *supra* note 97, and accompanying text.

[140]Garrett, *supra* note 88, at 1090–92.

[141]Sangero & Halpert, *supra* note 41, at 519.

confession or the investigation protocol is faulty, the tendency is to minimize their value relevance.[142] Moreover, in contrast to the decisive weight accorded to a confession, no significance is usually attributed to a denial, either during the police interrogation or the court proceedings.[143] Last, police investigators tend to rely on prosecutors and judges to filter out later on police errors—that is, any false confessions they may have extracted during interrogations. Prosecutors, in turn, tend to rely both on police (in carrying out their investigations) and on judges (in conducting the trial proceedings) to prevent wrongful convictions. Judges and juries, for their part, tend to rely on the law-enforcement agents—the police and prosecution—to bring only the guilty to trial, while appellate judges similarly rely on trial judges. Consequently, as soon as a critical error occurs (e.g., an innocent person is targeted as a suspect and gives a false confession),[144] these interdependent elements of the system of checks and balances fall like dominoes, eventually resulting in a wrongful conviction. As false confessions occur at a significant rate, measures must be applied to attain safety in the system, including the use of probability calculation to determine the appropriate weight to be attributed to confessions.[145]

V. Possible Safety Measures

A. Bayesian Logic and Confessions

Up to this point, I have shown that a confession should always be treated with suspicion as evidence and its reliability as questionable.[146] But even those who consider confessions to be reliable evidence must be wary of convicting solely based on a defendant's confession, without any other significant corroborative evidence, for this cannot be reconciled with a concept of safety. Indeed, from a probabilistic perspective,[147] the concern with wrongfully convicting an innocent person arises not only when a confession is the sole piece of evidence, but also given the fact that even strong corroborative evidence might not suffice to ensure a safe conviction given the weak weight that should be attributed to confessions in general.

1. An Intuitive Numerical Example

Even without turning to a detailed mathematical calculation of this

[142]Garrett, *supra* note 88, at 1088.

[143]Ákos Farkas & Erika Roth, *The Constitutional Limits of the Efficiency of Criminal Justice*, 37 ACTA JURIDICA HUNGARICA 139, 145 (1995).

[144]Leo, *supra* note 110, at 334–38; Sangero & Halpert, *supra* note 41, at 528.

[145]Sangero & Halpert, *supra* note 41.

[146]Sangero & Halpert, *supra* note 41, at 539; Sangero, *supra* note 30, at 2800.

[147]Sangero & Halpert, *supra* note 41, at 539–50.

proposition, it is helpful to illustrate this with an intuitive numerical example. Assume that a crime was committed and that the person interrogated for committing the crime—not due to any evidence linking her to the specific crime but because she was already in police custody and being investigated for a different crime—has confessed.[148] In her confession, the suspect did not provide any information not already known to the police or the public, and the police have not found any additional evidence tying her to the crime. The person who confessed resides in a city in which there are two million adults, each of whom is as likely as she to have committed the crime (Recall that no other evidence apart from the confession links the suspect to the crime). Now assume corroborated data showing that one out of ten confessions is false and a 50% probability that a court will erroneously believe a false confession.[149] If all the residents of the suspect's city were to be interrogated,[150] then 200,000 false confessions (and one true confession if the actual perpetrator were to confess) would likely be given, and a court could be expected to believe 100,001 of those confessions. Thus, while there is a 1 in 2,000,000 likelihood that the person in custody is the actual culprit in the absence of any evidence linking her to the crime prior to her confession, once she has given a confession the likelihood increases, but remains slim, to 1 in 100,001. Even if the story moves to a small city of only 100,000 adults, a confession lacking corroboration would increase the probability of actual culpability from 1:100,000 to only 1:5,001. Similarly, in a village of only 1,000 adults, instead of a ratio of 1:1,000, a non-corroborated confession would lead to a ratio of 1:51, that is, approximately, 2%, which does not even meet the 51% threshold of a balance of probabilities, nor, of course, the beyond-a-reasonable- doubt requirement of 90%.[151]

2. Bayes' Theorem

With the assistance of mathematician Dr. Mordechai Halpert,[152] I have created a probabilistic calculation, using Bayes' Theorem, which presented in an odds form, dictates that:

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[148]This example was adapted — with changes — from Mordechai Halpert & Boaz Sangero, *From the Fallacy of the Transposed Conditional to Wrongful Convictions Based on Confessions*, 26 BAR-ILAN L. STUDIES 733, 772–73 (2010) (in Hebrew). Responsibility for any error is solely mine.

[149]This is a conservative, optimistic assumption; the research discussed above, including studies conducted by Leo and Ofshe, supports a much more pessimistic estimate.

[150]Assume that there are two million investigating teams, and none of them is aware of the existence of the other teams. Each team operates with preconception of the suspect's guilt and goes to great lengths to extract a confession.

[151]Although it is common to suffice with 90%, I maintain that safety requires 99%.

[152]Sangero & Halpert, *supra* note 41, at 539–41.

$$\text{Likelihood Ratio} \times \text{Prior Odds} = \text{Posterior Odds}$$

The Likelihood Ratio is the probability ("P") of an interrogated suspect confessing ("E" — the evidence) if he is guilty ("G") divided by the probability of confessing if he is innocent ("I").[153]

$$\text{Likelihood Ratio} \equiv \frac{P(E|G)}{P(E|I)}$$

This expresses mathematically the strength of the evidence—that is, his confession. To illustrate, a likelihood ratio of 5 means that the probability of a guilty suspect confessing when interrogated is 5 times greater than the probability of an innocent suspect confessing during interrogation. The Likelihood Ratio of itself, however, is an insufficient measure of a suspect's guilt or innocence, for it fails to take into account any other evidence apart from the confession and assumes what in fact we are trying to prove: the numerator of the Likelihood Ratio assumes guilt and the denominator assumes innocence.[154]

Prior Odds, in contrast, equal the probability of guilt divided by the probability of innocence *without* taking the suspect's confession into account and, instead, based on other admissible evidence:[155]

$$\text{Prior Odds} \equiv \frac{P(G)}{P(I)}$$

These odds are "Prior" because they are what we believe to obtain prior to observing the evidence of guilt.[156] Through Bayes' Theorem, we "refine" our prior estimates by incorporating the evidence observed,[157] which, in the given example, is the suspect's confession.

If we multiply the Likelihood Ratio by the Prior Odds, we arrive at the Posterior Odds, which is what we are seeking in a criminal trial. The Posterior Odds represent the weight of a confession combined with other evidence:[158]

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[153]Sangero & Halpert, *supra* note 41, at 540.

[154]Sangero & Halpert, *supra* note 41, at 540.

[155]Sangero & Halpert, *supra* note 41, at 540.

[156]Edward K. Cheng, *Essay: Reconceptualizing the Burden of Proof*, 122 YALE L.J. 1254, 1266 (2013).

[157]Cheng, *supra* note 156, at 1267.

[158]Sangero & Halpert, *supra* note 41, at 540–41.

$$\text{Posterior Odds} \equiv \frac{P(G \mid E)}{P(I \mid E)}$$

When the Posterior Odds = 1, the probability of a suspect's guilt given his confession is equal to the probability of his innocence given his confession. When the Posterior Odds are >1, the probability of the confessing suspect's guilt is greater than the probability of his innocence. The greater the Posterior Odds, the stronger the likelihood of guilt. When the Posterior Odds are <1, the probability of the suspect's innocence given (and despite) his confession is greater than the probability of his guilt. The lower the Posterior Odds, the greater the probability of innocence.[159]

From a Bayesian perspective, to reach a verdict in a criminal trial, the Posterior Odds of guilt must be calculated. Bayes' Theorem demonstrates the huge significance of Prior Odds, which are determined by evidence other than the suspect's confession. To illustrate, we can return to our above example of a person who is interrogated by the police for committing a crime without any solid evidence tying her to that crime and, in the end, there is no incriminating evidence other than her confession. If we assume that all other residents of the city in which she lives are equally likely to have committed the crime she is suspected of, the Prior Odds of her guilt would be very low (in our numeric example above, as low as 1 in 2 million).[160]

3. Determining the Likelihood Ratio of a Confession: The Bayes' Factor

The research shows that many suspects confess during interrogation to crimes they did not commit. Moreover, as previously discussed, the numerous instances of false confessions that have been uncovered can be reasonably assumed to be only the tip of the iceberg of this phenomenon, given the Hidden Accidents Principle.[161] Indeed, there are no hard statistics on false confessions, nor can any be compiled.[162] However, based on the research and the false confessions that have been exposed, and taking into account the proven impact of interrogation and detention conditions on

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[159]Sangero & Halpert, *supra* note 41, at 541.

[160]Sangero & Halpert, *supra* note 41, at 541.

[161]Gudjonsson, *supra* note 67, at 173; Sangero & Halpert, *supra* note 41, at 541.

[162]Leo & Ofshe, supra note 38, at 431–32; Duke, *supra* note 39, at 566; Sangero, *supra* note 30, at 2797; Fischer & Rosen-Zvi, *supra* note 30, at 875; Garrett, *supra* note 111 ("Researchers cannot ethically test coercive interrogation techniques in a laboratory setting, and in actual cases there often may not be evidence like DNA that can confirm whether the confession is true or false").

suspects, *at least* one out of every ten innocent suspects has been estimated to give a false confession during interrogation.[163]

Yet, as also discussed above, courts and juries are incapable of discerning false confessions. The Likelihood Ratio of a confession is impacted by both the possibility of a false confession and the possibility of a court fact-finder error when assessing the reliability of a confession.[164] As a quantitative illustration, assume that it has been proven statistically that there is a 10% probability of an innocent person giving a false confession and a 50% probability of the court successfully discerning a false confession.[165] This means that the probability of a confession that is false and not being identified as such by the court is 5% (0.05), which is the denominator in the Likelihood Ratio. The numerator in the Likelihood Ratio is the probability that a guilty person would confess. As the lack of a confession (i.e., the presence of a denial) is not viewed as evidence of innocence (the guilty often deny their guilt), this probability can be no greater than 50% (0.5).[166] When we set this as the numerator in the Likelihood Ratio, we get the following equation:[167]

$$\text{Likelihood Ratio} = \frac{P(E|G)}{P(E|I)} = \frac{0.5}{0.05} = 10$$

4. Posterior Odds Required for a Criminal Conviction

American law seems to accept the (unsafe) threshold of 10 (90%) for Posterior Odds as meeting the beyond-a-reasonable-doubt requirement for a criminal conviction.[168]

5. Prior Odds Required for Convicting Based on a Confession

When Posterior Odds of 10 and a Likelihood Ratio of 10 are inserted into the first equation set out above, the outcome is that the Prior Odds necessary to convict someone based on his confession

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[163]Sangero & Halpert, *supra* note 41, at 542.

[164]Sangero & Halpert, *supra* note 41, at 542.

[165]Given the research discussed earlier on, including studies conducted by Leo and Ofshe, this is an optimistic and conservative estimate. Sangero & Halpert, *supra* note 41, at 542.

[166]Namely, the probability of a false negative for confessions is less than 50%. Sangero & Halpert, *supra* note 41, at 543.

[167]Sangero & Halpert, *supra* note 41, at 543.

[168]A threshold of 100 for Posterior Odds, which means proving guilt at a level of 99%, should be preferred, but this is yet not accepted in American law.

must be at least 1:[169]

$$\text{Prior Odds} = \frac{\text{Posterior Odds}}{\text{Likelihood Ratio}} \geq \frac{10}{10} = 1$$

From this, the following requirement follows:[170]

$$\text{Prior Odds} = \frac{P(G)}{P(I)} \geq 1 \Rightarrow P(G) \geq 1 \times P(I)$$

Thus, the probability of guilt based on incriminating evidence but *without* a confession must be at least 51% to satisfy the standard of proof of guilt beyond a reasonable doubt (i.e., a Posterior Odds threshold of 10) given a confession.[171] We can derive from this that a confession should be treated like corroboration for other substantial incriminating evidence (if such exists) and not as the primary evidence of guilt, which can ground a conviction with corroboration. This shift will entail a significant reversal in the role of the confession in criminal law.[172]

6. Illustration with George Allen's Case

Elsewhere, Dr. Halpert and I have illustrated this conclusion with the case of George Allen, convicted in 1983 of rape and murder.[173] Allen was taken into police custody for questioning after being stopped by police and being unable to produce a photo ID to prove he was not another individual who was wanted for the murder. In the course of his interrogation, Allen confessed to the crime; he was subsequently convicted at trial and sentenced to life imprisonment.[174] Were the serious hazards of convicting someone based solely on his confession taken into account, the Court likely would have determined a very high probability of Allen's innocence. Indeed, the Prior Odds of Allen's guilt were very low, for without his confession, there was no significant evidence linking him to the crime as opposed to any other resident of the city in which it occurred. To counteract such low Prior Odds, the key piece of evidence (the confession in this case) would (based on the laws of probability) have had to be far more reliable than it was and can ever be as

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[169]Sangero & Halpert, *supra* note 41, at 548.

[170]Sangero & Halpert, *supra* note 41, at 548.

[171]Sangero & Halpert, *supra* note 41, at 548.

[172]Sangero & Halpert, *supra* note 41, at 548–49.

[173]Sangero & Halpert, *supra* note 41, at 533–39; *State v. Allen*, 684 S.W.2d 417 (Mo. Ct. App. E.D. 1984).

[174]Sangero & Halpert, *supra* note 41, at 514.

evidence, as research in the field shows.[175] Only in 2012, after thirty years in jail, was Allen exonerated and released based on post-conviction DNA testing that led to the reopening of the case and a renewed police investigation.[176]

7. Strong Corroboration

Given the very real hazard of convicting innocent defendants, the police should not set eliciting a confession as their prime goal when interrogating a suspect against whom there is no well-grounded evidence of his or her guilt.[177] In addition, legislators should amend current law to preclude confessions from being the sole, or key, piece of evidence for a conviction, and to assign them only corroborative weight, to support other key evidence in a case. For the time being, however, at the very least, there must be a requirement for "*strong corroboration*" of confessions, namely, objective, independent (unrelated to the confession) and significant evidence that the defendant committed the crime.[178]

B. Additional Recommendations

I have made two main recommendations here: (1) for disallowance of conviction on the basis of a confession alone, and (2) for police to refrain from interrogations aimed at extracting a confession in the absence of a well-grounded suspicion against the interrogated suspect.

It is important and useful to consider, in addition, some of the recommendations that have been raised in the legal literature. First, it has been suggested that safety considerations require that all police interrogations be documented in video, from beginning to end, and not just confessions.[179] Second, police interrogators, prosecutors, defense attorneys, jurors, and judges should be taught and advised on the dangers of false confessions. Third, the length of interrogations should be limited.[180] Fourth, the police should be prohibited from lying to and deceiving suspects, especially with

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[175]Sangero & Halpert, *supra* note 41, at 554–55.

[176]*See* the INNOCENCE PROJECT website at www.innocenceproject.org.

[177]Sangero & Halpert, *supra* note 41, at 515.

[178]Sangero, *supra* note 30.

[179]For a detailed explanation of the importance of recording interrogations and an explanation as to why this will not suffice, see Sangero, *supra* note 30, at 2825–27. *See also* Garrett, *supra* note 111.

[180]Mark Costanzo & Richard A. Leo, *Research and Expert Testimony on Interrogations and Confessions, in* EXPERT PSYCHOLOGICAL TESTIMONY FOR THE COURTS 88 (Mark Costanzo, Daniel Krauss, & Kathy Pezdek eds., 2007).

regard to evidence (especially scientific evidence) of their guilt.[181] And fifth, jurors should hear expert testimony on the recent research on false confessions, their causes, and so on.[182] Obviously, all of these recommendations, as well as others, should be assessed carefully both before and after their implementation.

C. The English PEACE Protocol

An additional source for increasing safety in confessions is the UK Home Office's instructions for investigative interviewing, known as PEACE (Planning and preparation; Engage and explain; Account clarification and challenge; Closure; Evaluation), which it published in 1993.[183] The main principles set forth in this protocol are as follows: First, it states that the purpose of a police interview is to obtain full, accurate, and reliable accounts on matters being investigated by the police. Second, investigators must act fairly and without prejudice in interviewing and dealing with suspects, and they must "not assume that all suspects are going to lie, say nothing or provide a self-serving version of events." Third, Principle 2 of the protocol requires that people "with clear or perceived vulnerabilities" be treated "with particular care, and extra safeguards should be put in place."

Simon has described this method as follows:

> In sharp contrast to accusatory protocols that instruct interrogators to silence and shut down the suspect from stating anything but an admission, the Conversation Management method encourages the suspect to provide an abundance of information. This approach both offers the suspect a fair opportunity to make his case and provides the interrogator material for challenging that account. Importantly, the Conversation Management approach discourages aggressive treatment of the suspect, and it forbids resorting to minimization, maximization, intimidation, or any other technique that might be coercive.[184]

The contrast with the Reid protocol is clear: as Simon notes, the PEACE method is grounded on a sophisticated use of information, with the purpose of exposing lies and contradictions, as opposed to

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[181]White, *supra* note 59, at 148; GEORGE C. THOMAS III, THE SUPREME COURT ON TRIAL: HOW THE AMERICAN JUSTICE SYSTEM SACRIFICES INNOCENT DEFENDANTS 195 (2008); Young, *supra* note 58, at 426 (generally opposing lying to the suspect during interrogation).

[182]Garrett, *supra* note 111.

[183]COLLEGE OF POLICING, INVESTIGATIVE INTERVIEWING (2013), http://www.app.college.police.uk/app-content/investigations/investigative-interviewing/. *See also* SIMON, *supra* note 107, at 140–42. I have certain reservations about the seventh principle of the PEACE method, which is as follows: "Principle 7—Even when a suspect exercises the right to silence, investigators have a responsibility to put questions to them [*sic*]." In my opinion, greater respect should have been accorded to the right to silence, and police investigators should not have been instructed to undermine it. *See* in this regard *Michigan v. Mosley*, 423 U.S. 96, 104–07, 96 S. Ct. 321, 46 L. Ed. 2d 313 (1975).

[184]SIMON, *supra* note 107, at 141.

the Reid method, which points to confrontation, accusation, or even coercion of suspects being interrogated. Given the inherent risks of the Reid approach, discussed above, it is vital that a new interrogative approach, such as the PEACE method, be explored, as New Zealand, Norway, Sweden, and Denmark have all done.[185]

VI. Applying the STAMP Safety Model to Confessions

A. System-Theoretic Accident Model and Processes

Professor Nancy Leveson has developed a sophisticated safety model, best known by its acronym "STAMP"— System-Theoretic Accident Model and Processes. The model is based on a new systems theory, according to which traditional safety methods are not adequate for complex systems. Leveson proposes shifting the emphasis from the *reliability* of a system's components to system *control*.[186] To begin with, every system must be examined closely to determine what safety *constraints* are imperative for it to operate without mishap. For example, with regard to metro subway systems, one of the necessary constraints is that "[d]oors must be capable of opening only after train is stopped and properly aligned with platform unless emergency exists."[187] In my opinion, similar constraints can—and should—be devised for the criminal justice system, so as to prevent false convictions.

The next stage in Leveson's model is the setting of hierarchical *control* structures that will ensure the enforcement of the safety constraints required for the system. Safety, Leveson explains, is a feature throughout the system, in its entirety, and not limited to any one component in the system. She eloquently summarizes her model in her recent book:

> STAMP focuses particular attention on the role of constraints in safety management. Accidents are seen as resulting from inadequate control or enforcement of constraints on safety-related behavior at each level of the system development and system operations control structures. Accidents can be understood in terms of why the controls that were in place did not prevent or detect maladaptive changes.
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> Accident causal analysis based on STAMP starts with identifying the safety constraints that were violated and then determines why the controls designed to enforce the safety constraints were inadequate or, if they were potentially adequate, why the system was unable to exert appropriate control over their enforcement.

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[185]SIMON, *supra* note 107, at 142.

[186]NANCY G. LEVESON, ENGINEERING A SAFER WORLD: SYSTEMS THINKING APPLIED TO SAFETY 7–14 (2011). *See also* NANCY LEVESON, NICOLAS DULAC, KAREN MARAIS & JOHN CARROLL, MOVING BEYOND NORMAL ACCIDENTS AND HIGH RELIABILITY ORGANIZATIONS: A SYSTEMS APPROACH TO SAFETY IN COMPLEX SYSTEMS 5–6 (2009), http://sunnyday.mit.edu/papers.html (quoting Todd R. La Porte & Paula Consolini, *Working in Practice but Not in Theory: Theoretical Challenges of High-Reliability Organizations*, 1 J. PUB. ADMIN. RES. & THEORY 19 (1991)).

[187]This example is taken from LEVESON, *supra* note 186, at 192.

> In this conception of safety, there is no "root cause." Instead, the accident "cause" consists of an inadequate safety control structure that under some circumstances leads to the violation of a behavioral safety constraint. Preventing future accidents requires reengineering or designing the safety control structure to be more effective.[188]

As Leveson shows in ENGINEERING A SAFER WORLD, STAMP has been tested with success—by her and, subsequently, by others—on different types of actual operating systems. Her model has proven to be both efficient and economical for the investigation of accidents as well as safety engineering, which aims to prevent accidents in advance. As she explains,

> The more one knows about an accident process, the more difficult it is to find one person or part of the system responsible, but the easier it is to find effective ways to prevent similar occurrences in the future.
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> STAMP is useful not only in analyzing accidents that have occurred but in developing new and potentially more effective system engineering methodologies to prevent accidents. Hazard analysis can be thought of as investigating an accident before it occurs. Traditional hazard analysis techniques, such as fault tree analysis and various types of failure analysis techniques, do not work well for very complex systems, for software errors, human errors, and system design errors. Nor do they usually include organizational and management flaws.[189]

This final point is of particular relevance to our context, as the majority of failures in the criminal justice system are not technological errors but rather stem from human error and organizational and management flaws. Leveson clarifies that although system engineering was developed originally for technical systems, the STAMP approach is just as important and applicable to social systems:

> All systems are engineered in the sense that they are designed to achieve specific goals, namely to satisfy requirements and constraints. So ensuring hospital safety or pharmaceutical safety . . . fall[s] within the broad definition of engineering.[190]

Accordingly, I will now propose applying and implementing the STAMP model in the criminal justice system.

B. Confession X STAMP = Safety

Under Leveson's advanced STAMP (System-Theoretic Accident Model and Processes) safety model, for each stage in the criminal process and regarding every decision that brings the case closer to a possible conviction, it is necessary to define the safety constraints

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[188] LEVESON, *supra* note 186, at 100. Elsewhere, Leveson has formulated the STAMP "recipe" for safety more succinctly as "identifying the constraints required to maintain safety and then designing the system and operating conditions to ensure that the constraints are enforced." Nancy Leveson, *A New Accident Model for Engineering Safer Systems*, 42 SAFETY SCI. 237 (2004).

[189] LEVESON, *supra* note 186, at 101.

[190] LEVESON, *supra* note 186, at 176. *See also* LEVESON, *supra* note 186, at 198–209 ("Safety Control Structures in Social Systems").

that are required in the criminal justice system to prevent the hazards that lead to wrongful convictions and, accordingly, to set the safety controls (and barriers) needed to enforce those safety constraints. This will require a process of thorough safety thinking, which can be done by teams of experts, in the framework of a Safety in the Criminal Justice System Institute (SCJSI) that I suggest to establish.[191] As an example, and for the purpose of the current Article, I will now focus, of course, on confessions.

If we focus on a suspect's (or defendant's) confession, using the above detailed theoretical analysis of confessions, it is possible to think of some hazards and the safety constraints necessary to prevent each hazard, as well as the controls (and barriers) needed to enforce these safety constraints, as analyzed in Table. It is important to clarify that I do not claim my Table to exhaust all the safety constraints for confessions that are necessary to make the system safe from the hazard of false confessions, and it certainly does not represent all the controls (and barriers) needed for enforcing these safety constraints. This will all be determined following comprehensive groundwork by the SCJSI. My main goal is to demonstrate what general direction systematic safety thinking should take in order to develop safety in the criminal justice system and reduce the risk of wrongfully convicting innocent defendants.

[191] Introducing modern safety into systems lacking a culture of safety requires the establishment of a special institute to carry out this function, and the securing of resources necessary for the new institute to operate in a meaningful way. Thus, for example, in the field of aviation, the Federal Aviation Administration (FAA) was established; in the field of transportation, the National Transportation Board (NTSB) was founded; in the area of food and drugs, there is the Food and Drug Administration (FDA) the Occupational Safety and Health Administration (OSHA) serves the occupational field; and various such bodies were established in the medical field, such as the National Center for Patient Safety (NCPS) and the Center for Patient Safety Research and Practice. In all of these fields, the recognition of safety issues and the need to improve performance led to national focus on safety leadership, the development of a knowledge base, and the distribution of information, an agenda to which substantial resources were devoted.

ANALYZING CONFESSIONS ACCORDING TO THE STAMP MODEL

Hazards	Safety Constraints & Controls
1. An interrogation leads to a false confession.	**Safety Constraints:**
	a. A confession elicited during an interrogation must be voluntary.
	b. A confession elicited during an interrogation must be reliable.
	c. Physical pressure of any type and significant psychological pressure must not be used to coerce a confession from a suspect (including: lying to the suspect about the existence of specific incriminating evidence against him, threatening the suspect, excessive duration of the interrogation).
	d. A great temptation to confess must not be created for the suspect, which is likely to lead an innocent person to falsely confess.
	Controls (and Barriers):
	e. A confession must not be obtained in violation of the *Miranda* rule (a suspect must be informed of his right to remain silent and right to legal counsel, retained or appointed, and that anything he says may be used against him in a court of law).
	f. The entire duration of the interrogation must be recorded on video (and not just the confession).
	g. A defense attorney must be allowed to be present as an observer during the interrogation.
	h. Police investigators and prosecutors must be instructed on the danger of violating guidelines (a)–(g).
	i. If a prosecutor supervises the police investigation, he must ensure that the police investigators act in accordance with guidelines (a)–(g).
	j. A prosecutor must not submit to the court a confession that was obtained in violation of guidelines (a)–(g).
2. Hazard: A false confession is admitted as evidence at trial.	**Safety Constraints:**
	a. A confession must not be admitted as evidence if not proven to have been given voluntary and in line with the *Miranda* rule.
	b. A confession must not be admitted as evidence if there are significant signs that it is false.
	Controls (and Barriers):
	c. A confession must not be admitted as evidence if obtained in significant violation of any of the above guidelines directed at the police (1.a–g) or the guidelines directed at the prosecution (2.a–j).
	d. Judges must be instructed in training programs (and jury members by expert witnesses) on the dangers of violating guidelines (a), (b), and (c).
	e. In an appeal of a conviction, there must be close scrutiny of whether all the guidelines relating to all three above hazards were followed.
3. Hazard: A defendant is convicted based on a false confession.	**Safety Constraints:**
	a. A conviction must not be based on a confession if it is the sole piece of evidence (because a confession can be false and because the fact-finders have no way of discerning all false confessions).
	b. A conviction based on a confession must have strong corroboration (not only with respect to *corpus delicti* but also with regard to the identification of the accused as the perpetrator of the crime).

	c. A confession that is the basis of a conviction must include indications that the interrogee knew unrevealed details about the crime scene (that were unknown to the interrogators and, at the very least, had not been released to the public), accompanied by documentation that proves this.
	Controls (and Barriers):
	d. Judges must be instructed in training workshops (and jury members by expert witnesses) on the dangers of violating safety constraints a, b, and c.
	e. In an appeal of a conviction, there must be close scrutiny of whether all the guidelines relating to all four above hazards were followed.
	f. Following conviction, a confession must not be viewed as a barrier to filing an appeal or moving for a retrial, and any new piece of evidence that is likely to show that the conviction was false must be examined.

Conclusion

There have always been, and always will be, accidents. In some aspects of our life, this appears to be an inevitable reality. However, a high rate of accidents is not an unavoidable fact of life, but rather the product of human negligence and—when we are aware of the danger but do not act purposefully to reduce it—even indifference. At present, following the astonishing findings of the Innocence Project in the U.S., and those of other studies throughout the world, we can no longer bury our heads in the sand. It is already clear today that there is a significant phenomenon of wrongful convictions based on false confessions.

Current confession law—in particular, the *Miranda* rules—only addresses the possibility of an involuntary confession. It does not seriously deal with the existing possibility of false confessions (which may be voluntary). Since safety theory and safety measures are not developed in the criminal justice system, we must learn it from other areas of our life, such as aviation, transportation, and engineering. For this purpose, I use the advanced STAMP safety model to develop an innovative model of safety from false convictions, in which after the hazards are identified, safety constraints, controls and barriers are suggested.

It is my hope that this Article will succeed to convince those of the need to "THINK SAFETY" and to establish safety requirements with the power to generate a truly positive change and to significantly reduce the terrible phenomenon of innocent persons who are convicted on the basis of their false confessions. Society must protect those persons who cannot protect themselves, and we can do so by implementing additional safe guards in the criminal justice system to prevent convictions of innocents.