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Case Deconstruction of Criminal Investigative Failures

Final Summary Overview

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Purpose of Project

The goal of this project was to deconstruct the systemic nature of criminal investigative failures – defined here as unsolved crimes that should have been solved or crimes that were incorrectly “solved” (i.e., wrongful convictions). These outcomes are two sides of the same coin.

Such failures are sentinel events that signal underlying structural problems within a weak system environment (Doyle, 2010). Similar to transportation or medical accidents, they are often the result of multiple and co-occurring causes. However, unlike the response to an airplane crash, the criminal justice system typically makes little effort to understand what went wrong. Such failures tend to be ignored and systemic reviews are rare. As a consequence, important necessary procedural changes and policy improvements may not occur.

The purpose of this project was to develop a more comprehensive understanding of how – as opposed to why – such failures occur. A number of wrongful convictions and other types of criminal investigative failure were deconstructed in an effort to identify the major causal factors, their characteristics and interrelationships, and the systemic nature of the overall failure.

Project Design

Methods

We initially identified 275 criminal investigative failures as potential study cases. Information on crime type, relevant dates, location, investigating agency, exoneration method (if applicable), information sources, and other relevant details was collected. Cases were scored from 0 to 5 on the basis of: (1) information availability; and (2) agreement level that the investigation was a failure. The average of these two scores was used for an overall case score. The top 50 cases were then selected for analysis.

Each case was carefully reviewed and the most important causal factors for the failure identified. Data sources included trial transcripts, government reports, public inquiries, commission investigations, scholarly studies, independent reviews, interviews, and media coverage. Every case was analyzed by two researchers, at least one of whom was an experienced major crime investigator.

The causes were then classified according to a scheme for error analysis adapted from Reason's (1990) failure domains: (1) personal issues; (2) organizational problems; and (3) situational features. Personal issues were individual-level problems, often involving poor decision-making or flawed judgment (e.g., confirmation bias, misfeasance). Organizational problems were those inherent in the structure, procedures, policies, training, or resources of the police agency or prosecutor's office (e.g., groupthink, poor supervision). Situational factors were environmental features or characteristics of the crime, external to the control of the police or government (e.g., media frenzy, stranger crime). Personal and organizational factors can overlap; if the error was within the control of the individual – if another detective could have done things differently – then the cause was coded as personal.

Causal factors were further grouped into primary, secondary, or tertiary factors based on their proximity. Primary factors were proximate causes that led directly to the failure, while secondary, tertiary, and higher-level factors were contributing causes that produced, influenced, or enabled the primary causal factors.

The next step was to determine how the various causal factors related to each other, what factors facilitated what other factors, and the relative strength of each factor's contribution. We built concept maps and graphically displayed these interactions in causal factor networks in order to reveal and analyze the underlying structure of the case failure.

An example of a concept map, the Michael Morton case, is shown in Figure 1. The nodes in the network represent causal factors and the links influences; the former are shown as blue ovals, green rectangles, or purple hexagons, depending on their classification, and the latter as thick or thin arrows, depending on the direction and strength of their influence. The primary cause of Morton's wrongful conviction was coded as the failure to properly investigate a number of important evidentiary leads. The seven causal factors included:

- The murder was a high-profile crime in suburban community that prided itself on its safety.
- The high-profile nature of the murder resulted in the district attorney's office becoming inappropriately involved in the investigation.
- The sheriff's murder investigation involved inexperienced and incompetent investigators, unethical case management, and an arrogant "law and order" mentality.
- The medical examiner incorrectly estimated the victim's time-of-death, throwing off the timeline of the crime.
- Investigators rushed to judgment regarding Morton's guilt and prematurely shifted from an evidence-based to a suspect-based investigation. The high-profile nature of the crime and the unprofessional investigation contributed to the premature judgment.
- The rush to judgment regarding Morton's guilt led to confirmation bias, resulting in a biased search for and interpretation of evidence. Innocuous events were distorted to support Morton's guilt, while evidence pointing elsewhere was ignored.
- The sheriff's office failed to properly investigate a number of important evidentiary leads.

Tools and methods from content and network analysis were used to help evaluate the available information. Centrality measures were calculated for each causal factor by examining the frequency and nature of links between nodes in the conceptual network. After deconstructing the individual cases, larger systemic patterns were identified by reviewing all failures collectively. This involved a mixed-methods approach comprising both qualitative and quantitative analysis.

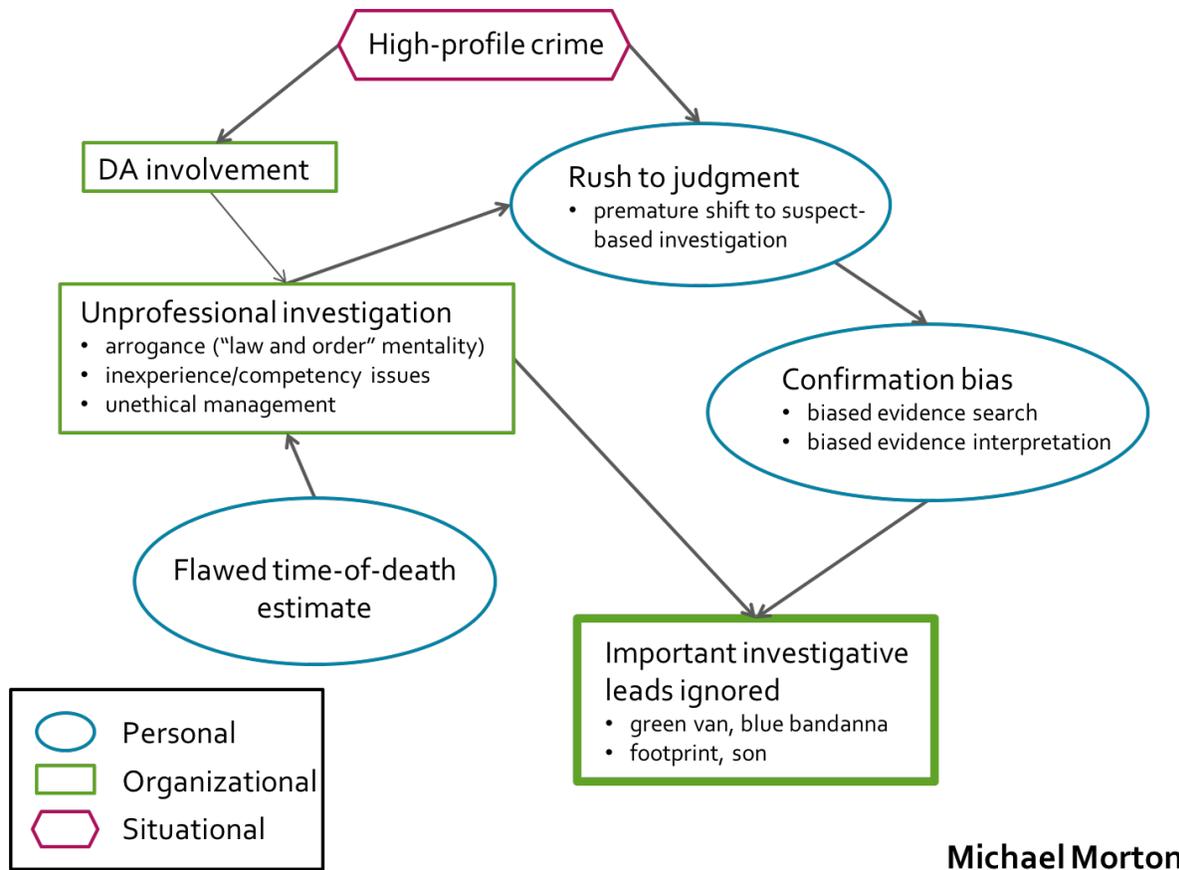


Figure 1. Concept Map.

Most wrongful convictions are ultimately a failure of evidence – a breakdown in its collection, evaluation, and/or analysis – so this problem was also examined. Understanding how such errors occur on a systemic level has significant potential for preventing future failures and for providing improved responses to failures that have already occurred.

Human Subjects Protection

All the data considered in this project were secondary in nature and in the public domain. Consequently, an IRB exemption was obtained.

Data Analysis

Case Characteristics

The characteristics of the 50 study cases were as follows:

- failure type
 - 43 wrongful convictions
 - 3 wrongful arrests
 - 2 unsolved crimes
 - 1 failure to arrest
 - 1 ignored crime
- crime type
 - 45 murders
 - 5 rapes/sexual assaults
- location
 - 42 United States
 - 5 Canada
 - 3 Europe
- mean scores
 - information availability = 4.8
 - agreement level = 4.7
 - case score = 4.6.

Causal Factors

We identified a total of 363 causes across the 50 cases, for an average of 7.3 factors per case (mode and median = 7, range 5 to 12). Many of these causes were very similar so we collapsed them for coding purposes into 40 different causal factors and 9 causal factor groups. Table 1 shows the 11 most frequent causal factors (those with an incidence of 10 or greater) in rank order. The top 8 (25%) factors accounted for 50% of the total number of causes in our study. Table 2 shows the causal groups in rank order with their constituent causal factors.

Causal Factor	N
Confirmation bias	37
Tunnel vision	24
High-profile crime/media attention	23
Management/supervision issues	22
Careless/incompetent investigation	20
Improper interrogations	20
Rush to judgment	19
Flawed forensics	15
Problematic witness/informant	14
Evidence analysis/logic failure	12
Interagency conflict/DA interference	10

Table 1. Causal Factors (≥ 10).

Causal Factor Group	N	%	Causal Factor
Cognitive biases	101	28%	Confirmation bias
			Groupthink
			Intuition
			Investigator ego/stubbornness
			Premature shift to suspect-based investigation
			Rush to judgment
			Tunnel vision
Evidence failures	35	10%	Acceptance of unreliable evidence
			Evidence analysis/logic failure
			Evidence collection and analysis failure
			Evidence collection failure
			Physical evidence not analyzed
			Probability errors

External issues	52	14%	Coincidence
			Crime fears
			Difficult crime to investigate
			High-profile crime/media attention
			Outside pressures
			Suspect behavior
Forensics/experts	21	6%	Failure to consult experts
			Flawed forensics
			Improper use of “experts”
Misfeasance	18	5%	Misfeasance/corruption
			Procedure/law problems
			Subculture issues
Organizational problems	38	10%	Inattention/apathy
			Interagency conflict/DA interference
			Management/supervision issues
			Resource/budget problems
Other	4	1%	Other
Poor investigation	48	13%	Alibi not evaluated
			Alternative suspects not investigated
			Careless/incompetent investigation
			Demeanor/character evidence
			Knowledge/training issues
			Linkage blindness
Problematic witnesses/ confessions	46	13%	Improper interrogations
			Improper suspect identification
			Jailhouse informant
			Problematic witness/informant
Total	363	100%	40

Table 2. Causal Factor Groups.

Most of the causal factors were categorized as personal (61%), then organizational (21%), and then situational (18%) (see Figure 2).

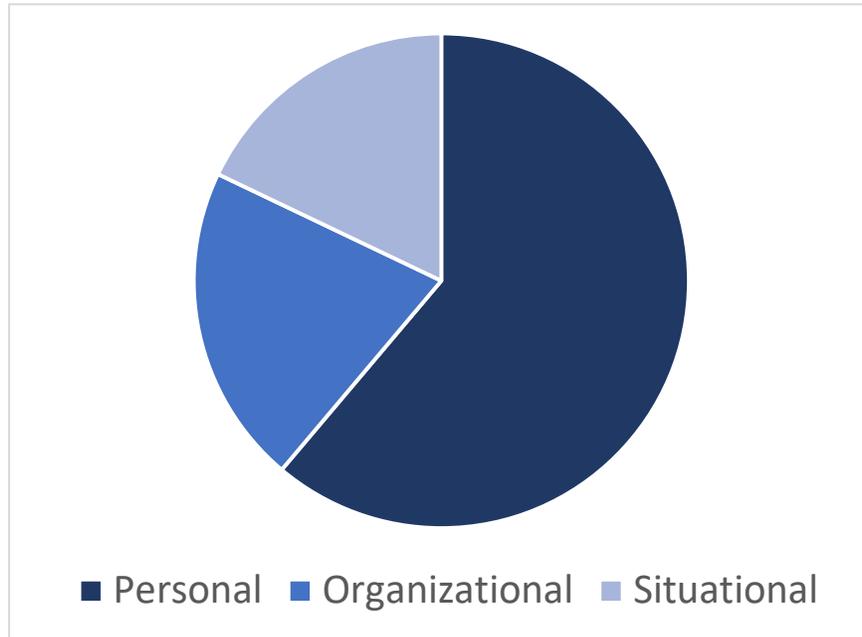


Figure 2. Causal Factor Classification.

Table 3 shows the proportion of cases in which a particular causal group was present, in rank order of frequency.

Causal Group	Percentage
Cognitive biases	86%
External issues	78%
Poor investigation	66%
Problematic witnesses/confessions	66%
Evidence failures	64%
Organizational problems	52%
Forensics/experts	32%
Misfeasance	26%
Other	8%

Table 3. Causal Group Case Presence.

Proximity

A causal factor's proximity was measured by its distance from the failure. If a factor was determined to be a direct cause (proximate factor), it was assigned a proximity of 1. If a factor was a contributing cause of the proximate factor, it was assigned a proximity of 2 (and so on). Figure 3 shows the causal factor proximity breakdown (proximity 1 = 27%, 2 = 50%, 3 = 17%, ≥ 4 = 6%). The overall mean proximity, for all factors across all cases, was 2.0.

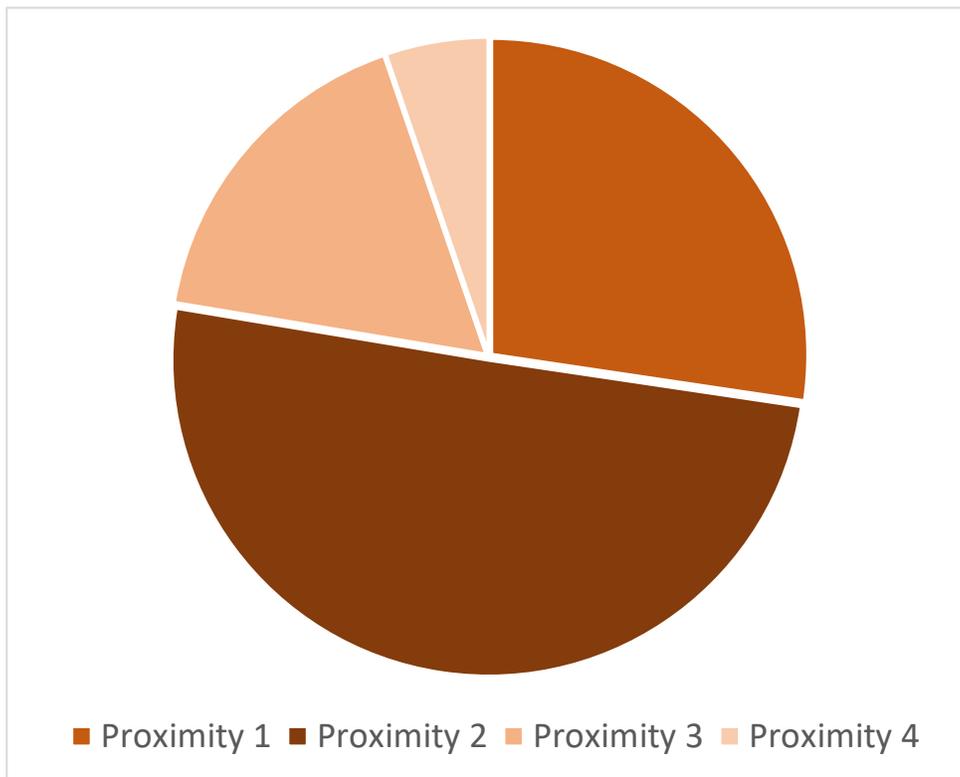


Figure 3. Causal Factor Proximity.

Figure 4 shows the mean causal factor proximity for the causal factor groups, in order of nearest.

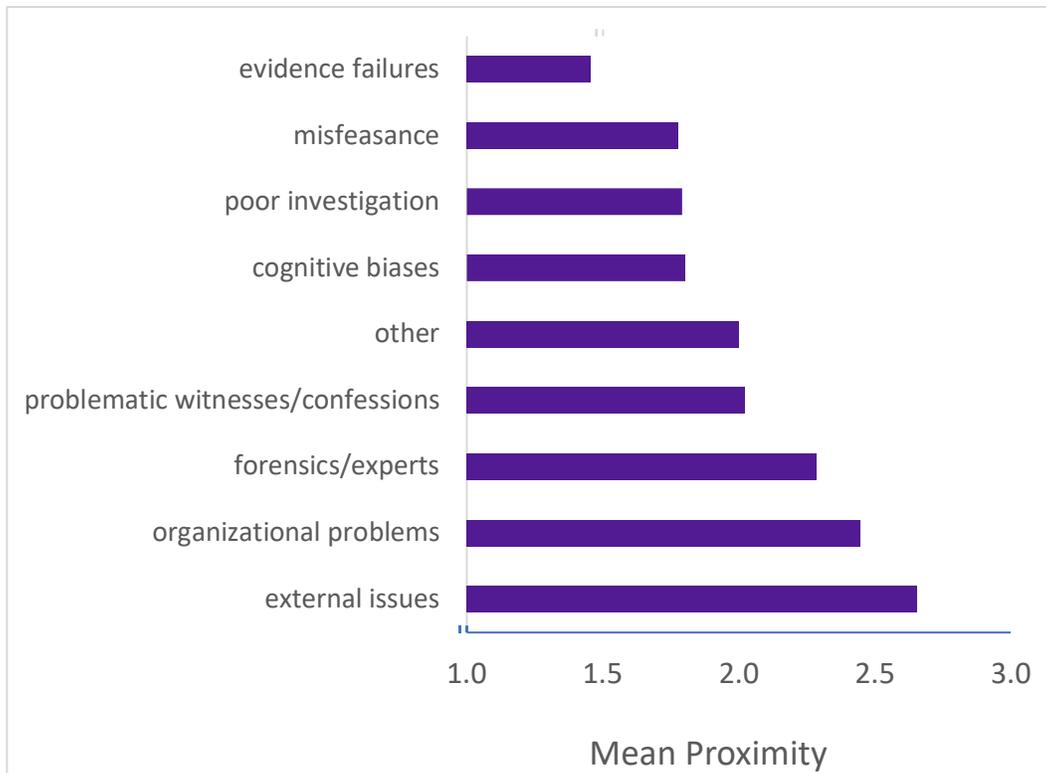


Figure 4. Causal Factor Group Mean Proximity.

Table 4 lists the most frequent proximate causal factors (i.e., proximity = 1).

Causal Factor	N
Confirmation bias	22
Careless/incompetent investigation	11
Evidence analysis/logic failure	9
Improper interrogations	7
Linkage blindness	5
Misfeasance/corruption	5
Tunnel vision	5
Acceptance of unreliable evidence	4
Rush to judgment	4
Evidence collection and analysis failure	3
Improper suspect identification	3
Probability errors	3

Table 4. Proximate Causal Factors (≥ 3).

Links

While the causal factors are nodes in the concept maps, relationships between them are links. There was a total of 383 connections between the 363 causal factors for the 50 cases (mean = 7.7 links per case). From the perspective of a particular causal factor, a link was either a cause or an effect, depending on whether it led from or to the factor (influence output or input). There were also five mutual cause-effect links (double-headed arrows), indicating a reciprocal relationship.

A link was weighted either 1 or 2 based on the strength of its influence. Most links were weighted 2 ($N = 315$, 82%), but some were weighted 1, indicating a weaker relationship ($N = 68$, 18%); the weight/factor ratio was 1.8.

Table 5 lists the combined number of links (cause + effect) and their weighted values for those factors that were the most connected. This provides a centrality measure that indicates how the factor was generally connected within its case networks.

Causal Factor	Combined Links	Weighted
Confirmation bias	122	232
Tunnel vision	58	111
Rush to judgment	53	100
Careless/incompetent investigation	47	82
Management/supervision issues	38	64
High-profile crime/media attention	36	57
Improper interrogations	33	64
Evidence analysis/logic failure	27	52
Groupthink	26	48
Flawed forensics	23	42
Interagency conflict/DA interference	23	38
Problematic witness/informant	21	41
Linkage blindness	20	37

Table 5. Combined Links (≥ 20).

Clusters

Particular combinations of factors tended to cluster together in the same case. Table 6 shows the most frequently co-occurring (though not necessarily directly connected) causal factors.

Causal Factor 1	Causal Factor 2	N
Tunnel vision	Confirmation bias	20
Confirmation bias	Improper interrogations	18
High-profile crime/media attention	Confirmation bias	17
Rush to judgment	Confirmation bias	17
High-profile crime/media attention	Careless/incompetent investigation	16
Confirmation bias	Flawed forensics	13
High-profile crime/media attention	Tunnel vision	13
Management/supervision issues	Confirmation bias	13
Confirmation bias	Careless/incompetent investigation	12
Confirmation bias	Problematic witness/informant	12
High-profile crime/media attention	Interagency conflict/DA interference	12
Confirmation bias	Evidence analysis/logic failure	11
Careless/incompetent investigation	Tunnel vision	11
Tunnel vision	Improper interrogations	11
High-profile crime/media attention	Rush to judgment	10
Rush to judgment	Tunnel vision	10

Table 6. Co-occurring Causal Factors ($N \geq 10$).

Other clusters involved multiple factors. For example, a common causal pattern consisted of a high-profile crime (such as a horrible murder) that led to a rush to judgment (and a premature shift to a suspect-based investigation), resulting in tunnel vision and confirmation bias – ultimately producing an evidence failure. Cluster patterns are likely the result of an underlying process connecting the different factors. In this example, production pressures (well documented in the safety literature), stemming from extensive media coverage of a sensational crime, lead to

cognitive biases and then evidence failures. If causal factors exhibit synergy and potentiate each other, the problem of a cluster may be greater than the sum of its parts.

Figure 5 shows the connections between the most frequently co-occurring causal factors. The width of an arrow indicates how frequently the two connected factors were linked; dotted lines indicate co-occurrence in the same case but not a direct link. (This image is a summary of the relationships across all cases and does not represent the specific links in a single investigative failure.)

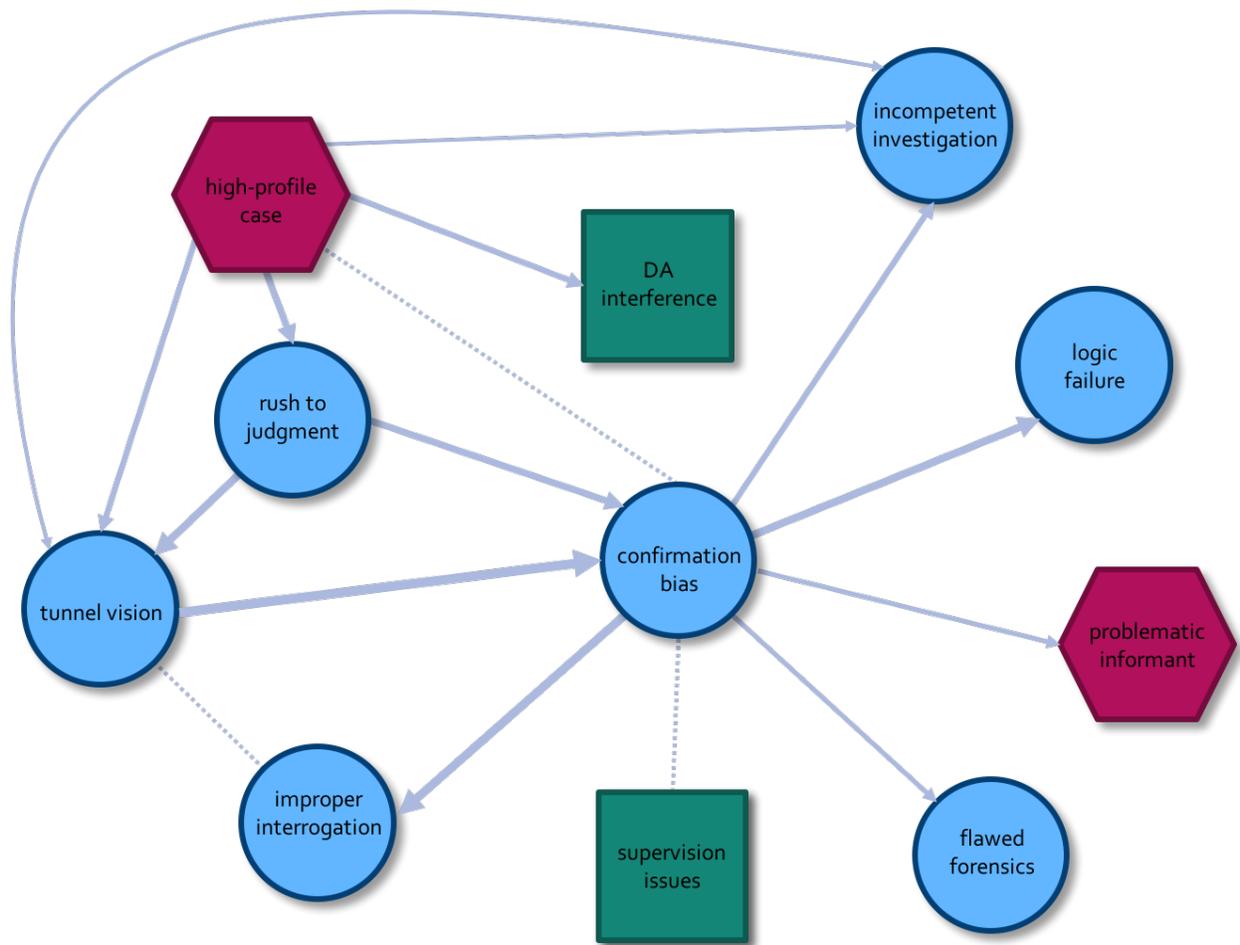


Figure 5. Causal Factor Clusters.

Failure Comparison

Of the 50 cases we examined, 43 were wrongful convictions, 3 were wrongful arrests, 2 were unsolved crimes (that should have been solved), 1 was a failure to arrest, and 1 was an ignored crime. Unsurprisingly, there was little to distinguish wrongful arrests from wrongful convictions. There were, however, some differences between other failure types and wrongful convictions/arrests. The other failures involved slightly more causal factors (8.8 to 7.1), a lower proportion of personal factors (29% to 65%), and a higher proportion of organizational and situational factors (43% to 19%, and 29% to 17%, respectively). The causal factors were similar with one exception; resource/budget problems showed up in the ignored crime and the failure to arrest cases, but were not present in any of the wrongful arrests or convictions. Given the low number of cases in the other failure category, these results should only be seen as preliminary.

Evidence Failures

A wrongful conviction is fundamentally a failure of evidence. A criminal investigation requires proper evidence collection, evaluation, and analysis. Errors in any of these tasks can lead to flawed decision-making by detectives. Evidence failures are often the product of a rush to judgment, tunnel vision, confirmation bias, and/or groupthink.

For each case, an assessment was made to determine if any of the following problems occurred during the investigation:

1. inadequate evidence collection – failure to collect all the relevant evidence necessary to thoroughly investigate the case (e.g., crime scene evidence, neighborhood canvass, witness and suspect interviews);

2. improper evidence evaluation – failure to assess evidence reliability (the probability an item of evidence, such as a confession, witness statement, or lab analysis, is accurate or true); or
3. illogical evidence analysis – failure to logically analyze the evidence (e.g., significance, low reliability implications, connections, patterns).

Evidence collection problems were present in 58%, evidence evaluation problems in 92%, and evidence analysis problems in 78% of the cases. It is possible for a failed investigation to suffer from more than one type of evidence failure. Figure 6 shows the proportion of cases for each of the seven different possible combinations of the three evidence failure modes (all of the cases examined had at least one type of evidence failure). By far the most common failure combinations were collection/evaluation/analysis (40%) and evaluation/analysis (34%); only 12% of the cases had a single evidence failure mode.

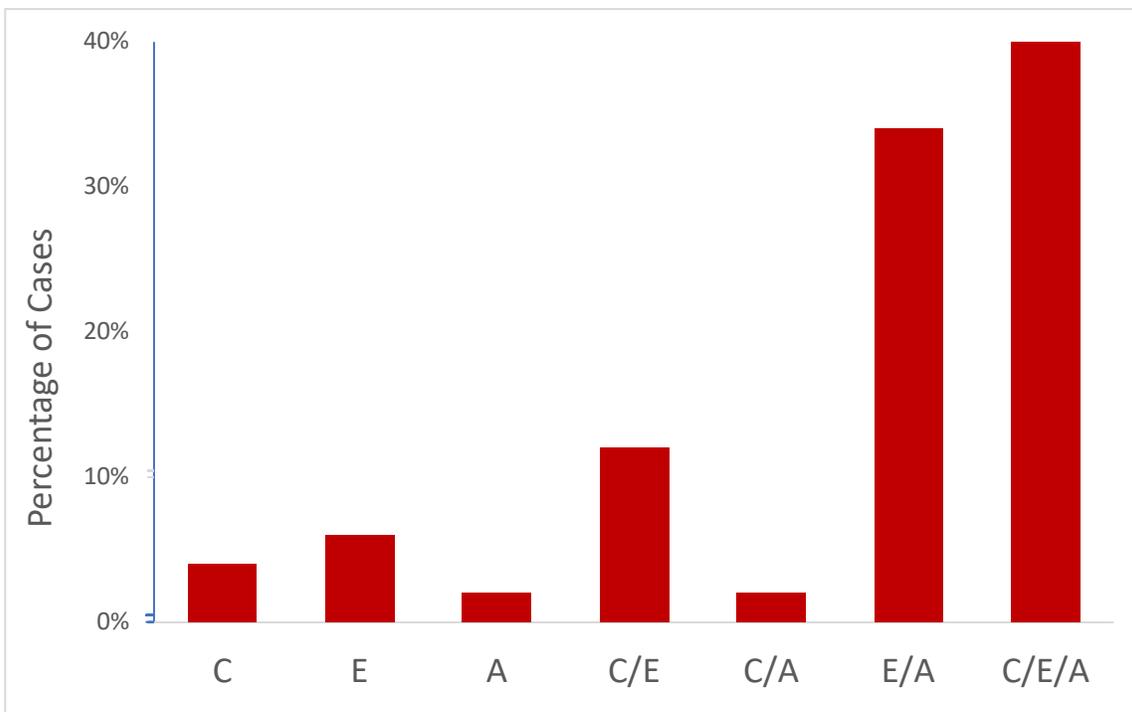


Figure 6. Combinations of Evidence Failure Modes
(C = Collection, E = Evaluation, A = Analysis).

Table 7 shows the causal factors most frequently associated with the various evidence failure modes, roughly arranged in investigative chronological order (the evidence collection, evaluation, and analysis categories discussed here are related to, but broader than, the specific evidence causal factors identified in our study). A comparison between the relationships shown in Figure 5 and the causes listed in Table 7 provides some sense of the anatomy of a criminal investigative failure.

Evidence Collection	Evidence Evaluation	Evidence Analysis
	High-profile case	
Rush to judgment		
Tunnel vision		
	Confirmation bias	
Incompetent investigation		
		Flawed forensics
		Logic failure
	Improper interrogations	
	Problematic informant	
		Supervision issues

Table 7. Evidence Failure Causal Factors.

Discussion of Findings

Causality

Our approach followed the root cause analysis (RCA) methods outlined in the safety literature. However, RCA usually assumes a single failure cause and adopts a reductionist view which leads to a linear analysis (Peerally, Carr, Waring, & Dixon-Woods, 2017). This approach is useful for straightforward cause-and-effect relationships, such as machine operations where defects are observable, measurable, and objective; however, social and behavioral influences are not mechanical processes, and RCA is less suitable in human-centered work environments (Pupulidy, 2017).

Certain causal factors were identified as proximate in our study, but this did not mean they were a root cause or even that they were the most important variable. Proximity was only a measure of temporal causal order. Because of its direct impact on the failure, a proximate cause might be regarded as an essential step, but not as a factor of origin. In this sense, there may not always be a “causal bottom line;” as experimentation is infeasible, it is difficult to identify the specific major factors *but for which* the outcome would not have occurred.

While we used the term “causal factor” in our study, it would have been more precise to refer to “contributing” factor, as any particular factor may or may not have been necessary or sufficient to cause the failure in a given case. Moreover, their role in a future investigation is probabilistic, not deterministic, conditional on other influences and circumstances. Gould et al. (2014) caution that much wrongful conviction research has been done by law scholars and journalists using a legal cause-and-effect model, so it can be misleading to think of the related factors identified in this literature as “causing” wrongful convictions. It is perhaps best to think in terms of mapping a fuzzy network of influences rather than one of inevitable causes (Pupulidy & Vesel, 2017).

Causal Factors

Personal

Personal factors were the most frequent cause of criminal investigative failures, particularly wrongful convictions. They comprised 61% of all causes and dominated all three metrics of causal importance – frequency, proximity, and connectedness. They were also key factors in both causal clusters and evidence failures. Specifically, the study showed premature judgment often led to tunnel vision and confirmation bias. Confirmation bias then produced problems of poor thinking, illogic, witness reliability misjudgment, and flawed evidence assessments.

A number of scholars have commented on the major role tunnel vision and confirmation bias play in wrongful convictions (Cory, 2001; Findley & Scott, 2006; Martin, 2002; O'Brien, 2009; Rossmo, 2009). Tunnel vision creates an overly narrow focus on a particular investigative theory and leads to the unconscious filtering of information (MacFarlane, 2010). However, the concept of tunnel vision has not been defined in a manner that allows it to be meaningfully researched (Snook & Cullen, 2009). It is often used as a vague umbrella term for certain cognitive biases, including confirmation bias (which is operationally defined and thus easier to identify and study). References to tunnel vision are more common in legal writings, where the term is employed as a metaphor for the reluctance to consider alternatives, than in the psychological literature.

Confirmation bias is a type of selective thinking (Oswald & Grosjean, 2004). Once a hypothesis has been formed, our inclination is to confirm rather than refute; we tend to look for supporting information, interpret ambiguous information as consistent with our hypothesis, and minimize any inconsistent evidence. Types of confirmation bias include: (1) the biased search for evidence; (2) the biased interpretation of information; and (3) biased memory (selective recall).

Confirmation bias can cause a detective, prosecutor, or forensic scientist to focus on evidence confirming the investigative theory, while ignoring or refusing to look for contradicting evidence. Existing evidence is interpreted in a biased manner; evidence that supports the investigative theory is taken at face value, while contradicting evidence is skeptically scrutinized. Other manifestations of confirmation bias include the failure to search for evidence that might prove a suspect's alibi, not utilizing such evidence if found, and refusing to consider alternative hypotheses. It often leads to logic failures, which are closely tied to probability errors (e.g., believing something is likely when it is not, or vice versa).

Organizational

The most common organizational problem was lack of proper supervision and management. This void enabled a number of errors, including confirmation bias and incompetent investigations. In certain cases, police management ignored (and perhaps unofficially encouraged) misfeasance and noble cause corruption.

Interagency conflict, most notably between police departments and the district attorney's office, played a role in a number of failures, particularly those involving high-profile crimes with much media attention. Linkage blindness was an issue for serial offenses, as the failure to connect the offender's crimes prevented the development of a complete picture of the series and undermined potential alibis of innocent suspects.

Situational

A high-profile crime followed by excessive media attention was the most common situational factor in the study. Problematic witnesses or informants who lied to investigators for their own purposes was another frequent cause. It was sometimes difficult to distinguish instances of legitimate deception from those of police gullibility, however. Police officers have a responsibility to carefully evaluate evidence reliability, including statements of witnesses. If a detective uncritically accepted the notoriously unreliable claims of a jailhouse informant (from confirmation bias or perhaps through misfeasance), we coded the action as personal rather than situational.

While the role of situational factors is important for understanding what went wrong in an investigation, they are not excuses for investigative deficiencies.

Recommendations

The sentinel events (SE) initiative can make a valuable contribution to the prevention of criminal justice failures. By unravelling the subtle psychological, sociological, and organizational influences that enable failures, the model provides an approach for analyzing systemic causation. The SE approach assumes errors are the product of multiple factors, both organizational and individual, none of which are necessarily sufficient on their own (U.S. Department of Justice, 2014). The real value of the SE approach is its ability to learn from the analysis of a particular failure and apply those lessons to future situations in order to reduce risk.

However, there are some intrinsic differences between criminal justice failures and transportation accidents that limit the generalizability of single-incident reviews. Mechanical breakdowns and machine operation usually involve deterministic relationships; wrongful convictions, on the other hand, are more likely the product of numerous causal factors functioning within networks of probabilistic interactions. There is rarely a root cause, as such, because there is no single origin and only uncertain processes. The factors to blame in a given case may not produce a future failure. Conversely, there is no guarantee that behavior tolerable in one police investigation will not lead to a failure in the future. As we rarely study non-failures, we have little idea how often identical fact patterns do or do not result in problematic outcomes.

The primary importance of this study was in its analysis of *systemic patterns* of criminal investigative failures – the identification of the most rampant causal factors and the relationships between them – for a large number of different cases. This information allows us to generally outline dangerous scenarios and problematic police behaviors.

Five main recommendations arise from this research:

Systemic Awareness

Identifying the various causes and systemic nature underlying most criminal investigative failures is the first step to understanding and preventing them. The cases examined here involved multiple causal factors (from 5 to 12); the majority were personal in nature, though organizational and situational factors also played roles. “A wrongful conviction is an organizational accident. Many small failures, no one of them independently sufficient to cause the event, combine and cascade, and only then produce a tragedy” (Doyle, 2017). The systemic nature of these failures suggests their incidence may be decreased by targeting the most virulent causes or causal clusters. Addressing only one problem, if seen in isolation, may not be sufficient to prevent a failure.

Cognitive De-biasing

Flawed decision-making and poor thinking were behind most of the failed investigations we studied. Intuition, rush to judgment, tunnel vision, and groupthink all pose risks to objective and accurate evidence evaluation and analysis; probability errors and faulty logic led detectives to defective conclusions. Confirmation bias was the most frequent problem in wrongful convictions.

Cognitive biases operate at a below-conscious level; because they are implicit, are difficult to control. They function independently of one’s intelligence, and awareness of their dangers makes them no easier to avoid (Heuer, 1999). However, research has shown that specialized training can help mitigate their influence (Morewedge, Yoon, Scopelliti, Symborski, Korris, & Kassam, 2015). The development and testing of de-biasing training should be an important focus of future efforts to improve criminal investigations and reduce the frequency of wrongful convictions.

Independent reviews may be the best method to effectively deal with cognitive biases as rethinking a case is difficult for detectives with prior involvement in the investigation (Rossmo,

2016). External peer reviewers, for a variety of psychological and organizational reasons, are more apt to notice mistakes and omissions – and much more likely to point them out. In England, after a certain time, an unsolved murder is reviewed by a senior investigating officer with no involvement in the case; in high profile or complex cases, the officer is drawn from another police force (ACPO, 2006).

Organizational Monitoring

Ineffective supervision and disengaged management were identified as enabling factors in several of the failures in this study. A police agency should have the necessary procedures and regulations in place to make sure basic investigative steps regarding evidence are followed. Supervisors can control risky investigative practices and monitor illogical investigative conclusions, while managers can prevent the development of noble cause corruption. Police leaders should establish professional and independent relationships with district attorney's offices.

Cognitive biases, the most frequent cause of failure in our study, are exceptionally difficult to control; however, investigation supervisors are in a position to independently review cases, while police managers can establish operational procedures for internal devil's advocates and external reviews (Rossmo, 2009). The organization provides the best means for controlling personal error.

Evidence Collection, Evaluation, and Analysis Procedures

Wrongful convictions and other types of criminal investigative failure can be reduced by implementing proper procedures for evidence collection, evaluation, and analysis. A high proportion (88%) of the cases in our study suffered from multiple evidence failure types, the most frequent being biased evidence evaluation (such as not assessing the reliability of a witness).

The major problems underlying evidence failings were a rush to judgment and cognitive bias. Prematurely shifting from an evidence-based investigation to a suspect-based investigation can shut down evidence collection efforts. Confirmation bias distorts the evaluation of evidence reliability, alters probability assessments, and confuses logical evidence analysis. Awareness training and appropriate operational procedures can help mitigate these problems. Effective supervision and engaged management can also play an important role in making sure detectives properly manage and understand the evidence in a criminal investigation.

Risk Recipes

The systemic causes identified in this study provide a basis for developing “risk recipes” – causal profiles or typologies that can be used to assess the threat of a criminal investigative failure or as a triage system for prioritizing the investigation of innocence claims (see Julian & Kelty, 2015). While most factors are not categorical indicators, their existence should be treated as a warning; the more causes present, the greater the risk, particularly if they form a cluster pattern (see Figure 5). Any evidence malfunctions, such as careless reliability assessments, are highly problematic. Risky investigations should be responded to with diligence by detectives, engagement by supervisors, and monitoring by police management. They should also be carefully and timely reviewed by prosecutor’s offices.

Study Limitations

People and organizations are not mechanical systems and efforts to deconstruct their failures are destined to be somewhat subjective (Pupulidy, 2017); however, every case in this study was reviewed by two researchers, at least one of whom had investigative experience, to increase

reliability. We were limited by the availability of information and case documentation, and could only identify the most important known causes. Certain factors may have been missed, while others were likely undercounted (e.g., intuition, detective ego, groupthink, probability errors).

Conclusions

Criminal investigative failures can have serious and far-reaching consequences for both individuals and their communities. Unsolved crimes allow criminals to avoid justice and erode the public's faith in their police departments. Wrongful convictions result in the punishment of an innocent person and the escape of the real offender. These failures undermine the deterrence of the law and may bring the entire criminal justice system into disrepute.

The media portrayal of some investigative failures has been oversimplified, leading to an incomplete understanding of how things go wrong and to a loss of subtlety in prevention efforts. Most mistakes have a systemic and multi-factored causal nature. A few causes are situational and beyond the control of the criminal justice system. Others are organizational and amenable to effective supervision and engaged management. However, the most common causal factors are personal in type, and arguably within the control of the individual detective.

Criminal justice failures are challenging, all the more so if they are embedded in a political context. Innovative and effective methodologies are necessary for both problem analysis and solution generation. Detectives must minimize the risk of error by accurately assessing evidence reliability and avoiding premature shifts to suspect-based investigations. Resolving issues of cognitive bias and logic/analytic mistakes is equally important. While debiasing training, engaged supervision, and external reviews can help, more research is needed to establish realistic and sustainable means of optimizing investigative thinking and reducing the incidence of failure.

Scholarly Products Produced or in Process

Criminology. (in preparation). Causal networks of criminal investigative failures.

Justice Quarterly. (in preparation). Confirmation bias in police investigations.

Journal of Research in Crime and Delinquency. (in preparation). Evidence failures in wrongful convictions.

Northeastern Law Review. (proposal). Systemic causes of wrongful convictions: A sentinel events perspective.

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