

## Original Article

# The Fraud Triangle revisited

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**Abstract** This article revisits the Fraud Triangle, an explanatory framework for financial fraud, originally developed by the American criminologist Donald Cressey from his interviews with embezzlers. First of all, we describe several developmental cornerstones of the Fraud Triangle. Its recent theoretical and practical application is reconsidered. In accordance with the three elements – motivation, opportunity, rationalization – and on the basis of our empirical study of 13 company fraudsters in Austria and Switzerland, we illustrate some within-company measures, which may contribute to a low fraud risk corporate culture. Although opportunity is necessary but not a sufficient condition for ‘upperworld’ criminal offences, our respondents regard the perceived pressures they experienced as salient. Rather than rationalizations, there is a ‘fraud-inhibiting inner voice’ before the crime, which normally deters an individual from fraudulent behaviour. This inner voice becomes quieter over time until the fraud occurs; at least in their cases. Our interviewees argue that all Fraud Triangle elements – including the inner voice – are highly influenced by the corporate culture in their companies.

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## Introduction

This article revisits the Fraud Triangle, an explanatory framework for financial fraud, developed by the American criminologist Donald Cressey. The article is based mainly on reviewing findings from the literature but also includes some results gained from our empirical study conducted with convicted fraudsters in Austria and Switzerland. First of all, we describe briefly several developmental cornerstones of the Fraud Triangle. Its recent theoretical and practical application is reconsidered. Subsequently, the composition and relevant characteristics of this model are explained; thus, all elements, motivation, opportunity, rationalization, its connections between each other and overlapping parts are described. In accordance with the three elements and on the basis of our empirical study we illustrate some within-company measures, which may contribute to a low fraud risk corporate culture. Furthermore, an additional element – capability – enlarges the triangle to a quadrangle,



commonly denominated as Fraud Diamond. However, we question the need for *every* element of the Fraud Triangle as a mandatory precondition for white-collar crime in companies. The Fraud Triangle and its variant, the Fraud Diamond, are appropriate to understand much financial crime, but they are not universally applicable.

## Development of the Fraud Triangle

The Fraud Triangle is commonly used by both sociologists and psychologists to account for crime in organizations. Cressey (1953) interviewed more than 120 incarcerated white-collar embezzlers, so-called ‘trust violators’, in special interviewing rooms in different US prisons and at the inmate’s place of employment in the penitentiary. He documents that there have to be more elements than just a financial incentive for a criminal violation of financial trust. Cressey (1950) and his mentor Sutherland (1940, 1941) find a common denominator to aggregate this kind of crime without physical violence into ‘trust violation’, which is described as the most common but not universal characteristic of white-collar crime. Cressey’s data constitute an empirical basis for the Fraud Triangle, starting in 1950 and culminating in 1953. Cressey (1953) designated the following three elements as necessary for white-collar crime:

- First, a problem that the offender considers to be ‘non-shareable’, becomes a stimulus for delinquency if the situation is perceived as a unique possibility to fix the problem, which is regarded as desperate. Subsequent literature frequently shows a division of this motivational element into pressure and incentive. Even if the problem was in fact communicable and easily soluble, all Fraud Triangle elements depend solely on the perception of the fraudster.
- Second, the individual has to regard his or her position of trust as an opportunity for committing a crime.
- Finally, the rationalizations used are relevant and necessary to neutralize the view that the conduct was criminal or even improper.

Cressey (1950) refers to Riemer’s (1941) journal publication *Embezzlement: Pathological Basis*, when describing opportunity. Riemer’s article is based on 100 cases of embezzlement, which were examined during the 1930s in a Swedish prison. Surprisingly, he alludes to very similar conditions to the Fraud Triangle elements described by Cressey. As argued by Riemer’s (1941, p. 411), the following three different fraud-causing aspects have to be accounted for when committing a crime: ‘...the social pull; the opportunity...the social push; the emergency situation...the psycho-pathological element involved’. Riemer points out that a potential fraudster needs a situation, which offers an opportunity; a driving force in an emergency situation, which may consist of a plurality of environmental constellations; and psycho-pathological conditions have to be considered as well. We hypothesize that Cressey was strongly inspired by Riemer’s work when developing an initial Fraud Triangle approach.

In subsequent decades, Cressey’s attainments have been refined and enhanced by many different academics in several disciplines. The Fraud Triangle is used as a fundamental basis for the development and categorization of illustrative risk factors of several



international auditing standards. Lou and Wang (2009, p. 75) describe it as the foundation for the recently devised fraud risk factors; hence, the ‘core of all fraud auditing standards’. Albrecht and Albrecht (2004), Howe and Malgwi (2006), Loebbecke *et al* (1989), Lou and Wang (2009), Nettler (1974) and recent international auditing standards follow Cressey (1953) in his assertion that it took all Fraud Triangle elements for trust violation to occur. Since the Fraud Triangle, frequently named as ‘early fraud warning instrument’ – according to Gill (2011b, p. 28) ‘... every theory of crime is a theory of prevention, understanding them is crucial’ – has been recognized by fraud standards, scientific management papers have increasingly focused on it; in the course of that the number of publications from different academic disciplines has also increased. Experiments with students measuring risk assessments published by LaSalle (2007) show that better results can derive from participants who were provided with an overview of the Fraud Triangle than from students who were provided a briefing on the COSO Integrated Framework (Internal Control; Committee of Sponsoring Organizations of the Treadway Commission). The Fraud Triangle advantageously focuses more on individuals and less on organizations; ‘books and records do not commit fraud; people do’ (LaSalle, 2007, p. 77).

In the absence of one or more elements, fraud is regarded as very unlikely, which is considered in greater detail in the following sections. Albrecht and Albrecht (2004) compare the triangle elements – motivation, opportunity and rationalization – with fuel, heat and oxygen, needed to light a fire; this fire-fraud analogy is also cited by LaSalle (2007). According to them, an elimination of any one of the elements can extinguish this fire as well as fraud. We do not contest that all Fire Triangle elements are required for fires and (at least in the absence of severe rain) are sufficient to ignite. At this point we strongly suggest that a distinction must be made. Their conclusion by analogy misses the following point: the Fraud Triangle with its components can create a condition for fraud. As Romney *et al* (1980) note, all elements, even opportunity, are substitutable. They summarize results of a study in which researchers with different backgrounds identify responsible factors for fraud to develop a model explaining financial delinquency. As a result Romney *et al* document fraudulent behaviour as a summation of situational pressures plus opportunities to commit fraud plus personal characteristics. A decade later, Loebbecke *et al* (1989) amended this additive theory by a new model, which seeks to explain white-collar crime through a multiplication of each Fraud Triangle element. Their multiplicative approach is nowadays used predominantly in the business literature. Recent international fraud standards as well as the literature exclude substitutability and it is generally assumed that all elements are mandatory for white-collar crime to occur. Our interviews with fraudsters give grounds to doubt that this assumption properly applies to *all* cases, though it may apply to most.

### Motive force of fraudsters

Since Cressey, it has been known that all Fraud Triangle elements overlap with each other; for example, an extensively developed and systematized rationalization can be an individual’s motive and may offer a sense of support in an offender’s fraudulent mind and consequent behaviour (Cressey, 1954; Nettler, 1974). *Motivation* as a third Fraud Triangle element is commonly divided by the literature into the sub-elements incentive and pressure. It is not unusual that a white-collar criminal combines different Fraud Triangle



elements (Wheeler, 1992) or subelements, for example, our empirical study with Swiss and Austrian high-profile fraudsters depicts an existing opportunity as an incentive for fraud. As Coleman (2001, p. 63) puts it: 'motivation and opportunity are inseparably interwoven and any successful theory of white-collar crime must take that fact into account.' Thus, in a certain sense, all elements are entangled to a greater or lesser degree.

However, the variety of sources for motivation to defraud cannot be ignored. More populist media commonly attribute motivation of white-collar crime not just to financial greed of individual detached 'black sheep' in society or in an organization. There is an incentive of financial benefit (Stotland, 1977), but as our research and literature findings accentuate, fraud is not all about money, which is rather more a symbol with little intrinsic relevance (Coleman, 1992). In this context, Heath (2008, p. 600) adds '...if greed combined with opportunity really caused crime in any significant sense, then there would be a lot more crime, simply because greed is ubiquitous as human motive and the world is rife with opportunity'. In general, an individual could claim motivational dependence on goals, which are individually and organizationally set. External circumstances are able to change goals and vice versa; thus, motivation can be modified, to attain a desirable state, which is one reason why some organizations with many opportunities have very little fraud. Punch (1996, p. 84) stresses that business environments are potentially criminogenic: 'the organization is the offender, the means, the setting, the rationale, the opportunity, and also the victim of corporate deviance'. Slapper and Tombs (1999, p. 141) follow Punch in describing capitalist corporations as inherently criminogenic because they operate according to the 'code of profitability', which largely overrides morality. Next to this resulting amorality because of profit maximization, the environment surrounding a company also affects the development as well as the acceptance of corporate crime, (Slapper and Tombs, 1999) which, in turn, influences individuals. One of the difficulties with the 'capitalism is criminogenic' approach is that it does not allow for sufficient observed variation between firms and sectors. We do not consider that security professionals are 'wasting their time', or that corporate culture and situational opportunities are unimportant. As several literature findings as well as our empirical examination confirm, the interaction between external created situational conditions and individual fraudulent motivations has great influence on the situation, which is the paramount importance while committing crime.

Different sorts of financial and non-financial, organizational and private incentives can represent this motivational Fraud Triangle subelement, for example, greed, poor performance or an urgent need for external financing, living beyond one's means, desire to avoid reputational damage, any kinds of perceived injustice, search for status and demonstration of power, different types of addictions and so on (Bussmann and Werle, 2006; Gill, 2011a, b). Spencer (1959) draws attention to individuals, who not just prefer to meet a challenge, but seek out chancy activities because of the so-called 'gambling instinct.' Several literature findings show that some individuals in management positions are 'risk seekers' and 'risk takers' (Wheeler, 1992; Bussmann and Werle, 2006); this attitude could be regarded as a 'part of the successful manager's image' (Punch, 2000, p. 262). In addition, Sakurai and Smith (2003) show that gambling problems in Australia are indeed a motivation for committing financial crime by individuals, who try to obtain funds for their addiction (see also Howe and Malgwi, 2006).

What was once a mere incentive can turn into pressure to continue. If the originally described 'non-shareable problem' (Cressey, 1950, 1953) is perceived as insoluble – except



through fraud in the mind of a potential offender – pressure can arise. Various situational circumstances may lead to personal or work-related financial pressures, for example, costs because of significant medical expenditures, meeting analysts' forecasts, producing better and better business results or non-financial pressures, for example, preserve social status, working very long hours, divorce, diseases and so on (Lou and Wang, 2009; Dorminey *et al*, 2010; Gill, 2011a, b). In this context Punch (2000) indicates, *inter alia*, the subjective and individual experience of pressure as an essential point. According to Punch (1996, p. 238), it is important how managers perceive their pressure.

### **Opportunity as a necessary but not sufficient condition**

Independent of a manager's motivation, a delinquent act needs an *opportunity*. The administration of larger sums of money requires an appreciable amount of trust; thus, individuals with a previous criminal record – provided the company are able to and do check – are very unlikely to be entrusted with such responsible tasks. According to Benson *et al* (2009), all forms of white-collar crime have 'opportunity structures' consisting of specific opportunity characteristics and vary by type of fraud. They assume that a potential fraudster reacts to an opportunity structure; if a particular type of fraud is made harder to commit, the number of offences (and in the long run, attempts) will reduce. Coleman (1987, p. 424) characterizes the attractiveness of opportunity to fraudsters as reflecting the size of expected gains compared with legitimate opportunities '... the perception of potential risks ... the compatibility of the opportunity with the ideas, rationalizations, and beliefs the individual actor already has...the evaluation of an illicit opportunity ... in comparison with the other opportunities of which the actor is aware' (see also Coleman, 1992, 2001).

Recent management literature findings highlight a weak internal control system and ineffective organizational controls because of a lack of monitoring, security measures and circumvention within the company without a functioning system of authorization, as one of the most relevant risk factors, which increases the attractiveness of an opportunity and opens the doorway to fraud (Marden and Edwards, 2005; Bussmann and Werle, 2006; Howe and Malgwi, 2006; Dorminey *et al*, 2010). Moreover, additional factors, such as the ability of management to override controls, a poor tone at the top, an unstable or too complex company structure, a permissive environment, negligence, too much trust at the wrong place (for example, between the external auditor and mandator), missing or weak preventive antifraud programs (for example, antifraud training measures) and consequently a leak of knowledge (for example, the bosses and boards are not competent enough to detect irregularities) are similarly considered as responsible for additional opportunities for committing white-collar crime (Loebbecke *et al*, 1989; Farber, 2005; Howe and Malgwi, 2006; Lou and Wang, 2009).

### **Extension of the Fraud Triangle: Capability**

It cannot be denied that occupational activities, which involve individuals in financial dealings, for example, positions at top-management levels, change the number and scale of opportunities available (Coleman, 2001). Crime-motivated individuals require not just



opportunity, but also the understanding that there is an existing opportunity to defraud. The perception and other skills, which are required to carry out activities, have to be distinguished from the opportunity element itself.

Hence, Wolfe and Hermanson (2004) expand the Fraud Triangle to the recent four-pronged model named Fraud Diamond and include an additional element in their journal article *The Fraud Diamond: Considering the Four Elements of Fraud*: the individual's capability to commit fraud. This element of the enhanced framework contains the following traits and cognitive abilities: individual know-how, resistance to stress to ensure not being discovered immediately, confidence and ego, coercion skills to convince others concealing crimes or use other individuals as an instrument of manipulation, effective lying skills to avoid detection and the hierarchical position or function in an organization, for example, in the form of a key position, in which an individual has access to cash flows (Wolfe and Hermanson, 2004). Earlier publications from Croall (2001), Ones and Viswesvaran (2001), Schnatterly (2003) or Wheeler (1992) pick up some elements of the idea of capability before Wolfe and Hermanson's highly regarded publication – erstwhile most likely classified and described as part of the opportunity. We suggest that capability as a further element is not entirely new, but it does complement the Fraud Triangle in a novel way.

### **Rationalization process of white-collar crime**

As Riemer (1941) and Sutherland (1941) presume that in the majority of the fraudulent cases, an individual's career is neither planned on the basis of lies and crimes, nor involves a defect of character. Usually managers know how to bridge their behaviour and the law in accordance with perceived morality. In the event of a white-collar crime, individuals attempt to minimize bad conscience and try to find a way to show their frauds as less wrongful, more plausible to themselves to maintain self-esteem, self-respect or a favourable self-concept (Shover and Hochstetler, 2006) and to others to avoid shame or stigmatization (Levi, 2002; Goldstraw-White, 2012). Blickle *et al* (2006) analysed empirical data material obtained from 76 white-collar perpetrators and 150 non-criminal managers, who filled out paper and pencil scales. They found, inter alia, that the need for social acceptance is higher and narcissistic tendencies are stronger in the responses of fraudsters. (The latter coincides with Babiak and Hare's (2007) analysis of the sociopathy of white-collar criminals they studied.) On the basis of their results it is conceivable that white-collar criminals increase their efforts in a variety of ways to avoid a loss of their social status and to prevent a destruction of their self-image. If the occupational and social standing are lost following detection, as Weisburd and Waring (2001) note, recidivism of stigmatized individuals may be more likely, even it is difficult to predict future offenses and though opportunities to use senior managerial positions to commit fraud are less likely (provided background checks are made by employers).

However, if someone violates social norms, a 'before the event' justification or verbalization may neutralize the discrepancies between his or her own individual moral sensibility and self-concept, on the one hand, and the criminal violation of financial trust, on the other. In the often cited work *Techniques of neutralization: A theory of delinquency*, Sykes and Matza (1957) note that individuals give themselves a kind of 'permission' to white-collar crime, which is regarded as valid by the offender but not by the legal system or society in general terms. Thus, it is usually not only important to have a plausible explanation for





themselves, but also *ex post facto* for others in case the delinquency is discovered. This basically psychological self-protection measure is a further Fraud Triangle element described as *rationalization* (Cressey, 1952, 1953). This element became one of the most discussed topics in the field of white-collar crime over the last decades (Coleman, 2001). If a violation of financial trust is called into question, socially approved vocabularies or accounts are used in order to render fraud innocuous as well as abate or even avoid sentences (Austin, 1961; Goldstraw-White, 2012). Mills (1940, p. 911) asserts that ‘vocabularies of motives ordered to different situations stabilize and guide behaviour and expectations of the reactions of others’. In Sutherland and Cressey’s (1960) view, such a practice can be a learned attitude by individuals, for example, from their organization ‘to the situational morality of business conduct’, as Levi (2010b, pp. 469–470) added. Punch (2000, p. 259) notes that the culture of a company and developed ideologies can facilitate what Mills (1940) termed ‘vocabularies of motive’ and this can be conducive to ‘significant rule-breaking.’

Frequently encountered techniques of neutralization are applied to redefine white-collar crime, for example, ‘everybody else does it’, ‘I am only borrowing the money and I will pay it back’, ‘nobody will get hurt’, ‘I deserve more’, ‘the organization owes it to me’, ‘no choice in the matter’, ‘respect the “folkways” of the business world, thus, business is business’ and so on (Riemer, 1941; Cressey, 1954; Spencer, 1959; Albrecht and Albrecht, 2004; Golden *et al.*, 2006; Howe and Malgwi, 2006; Heath, 2008; Levi, 2008). Rationalization can be performed in manifold ways as Zietz (1981) shows in a study of female embezzlers, which applies Cressey’s (1953) examination of male embezzlers. She enhanced the arsenal of verbalizations and found that women compared with men in general make less use of a ‘borrowing-pretence’ and they are less interested in protecting their status, but excuse their white-collar crime rather more through an urgent family need; both kinds of neutralization might reflect gender roles in our modern society and culture.

Cressey (1950, p. 743) adds that rationalizations ‘...are reflections of contact with cultural ideologies which adjust for the person contradictory ideas in regard to criminality on the one hand and in regard to integrity, honesty and morality on the other.’ Denying responsibility by claiming that they have been influenced by apparently uncontrollable circumstances, whether in form of an unavoidable market forces, or a serious illness of one’s own children or partner may reveal crime in a different light and ingeniously turn a fraudster into an avenger or – in an extreme case – even into a victim and the victim into the ‘wrong-doer’ (Zietz, 1981; Willott *et al.*, 2001; Dhami, 2007). Coates (2012) combines gender effects with sociobiology and ‘herding’ effects in testosterone-concentrated environments. However, in comparison with a blue-collar criminal, a white-collar one may be more successful at getting other individuals to empathize when explaining the conduct away as accident or misfortune (Shover and Hochstetler, 2006). Nevertheless, the simple application of rationalization to every kind of white-collar fraudster can be risky. An appreciation of the full extent of fraud could overthrow this Fraud Triangle element as an untenable assumption, as demonstrated by our empirical study in the following section.

## Summary

All elements of the Fraud Triangle – a heuristic framework for explaining financial fraud – depend solely on the perception of the fraudster. First, a problem, which offenders consider



to be 'non-shareable', become a motivational element for delinquency if the situation is perceived as a unique possibility to pull oneself out of the present state and improve the situation. Second, individuals have to regard their position of trust as an opportunity and they have to have the skills and nerve to defraud. Finally, delinquents give themselves a 'permission' in terms of neutralizing the discrepancies between their own moral sensibility and self-concept, on the one hand, and the criminal violation of financial trust, on the other, described as rationalization.

## **A Study of White-collar Criminals in Switzerland and Austria**

### **Research design and methodology**

Our empirical study was conducted in 2010 through interviews with 13 (12 face-to-face interviews and one telephone survey) of Switzerland (9) and Austria's (4) white-collar fraudsters. After the interviews (recorded on audio tape), transcriptions were compiled verbatim and translated from German into English. The lengthy investigation and conviction period covers 20 years, since 1990, whereas most of the convictions took place after 2000. The applied problem-centred interview is semi-structured and open-ended based on Witzel (2000).

Our respondents comprise 'elite perpetrators' with high professional standing, respectability (managing directors, senior executives, partners, owners or CEOs of large firms, accountants at top management levels, politicians and members of supervisory boards) and the ability to commit 'upperworld' criminal offences in their organizations; their victims frequently are large and renowned companies for which they have worked (indeed, perhaps surprisingly, a few perpetrators are still working for their victimized organization). 'Our' fraudsters have been convicted for financial accounting fraud, corruption, bribery, embezzlement or funds misappropriation. Their combined crimes resulted in the loss of many millions of Swiss Francs or Euros. A stringent obligation to observe confidentiality in Switzerland and Austria as well as the danger of drawing conclusions make it seldom possible to find out an average or median figure of the damage caused. However, data on loss may not correspond to profit to offenders and anyway they are open to interpretation (Levi and Burrows, 2008). In contrast to Cressey as well as other researchers who examined white-collar criminals in prison (Spencer, 1959; Willott *et al*, 2001 and others), all our analysed interviews were conducted with convicted male (11) and female (2) fraudsters who had been released or who never were detained (or even arrested); those convicted were not all sentenced to imprisonment.

### **Perceived pressure is salient to most frauds**

As the data analysis of our own empirical examination with high profile fraudsters reveals, the perceived pressure is the most salient and most frequently mentioned Fraud Triangle element in our study. Albeit not an absolute prerequisite for fraud and a flexible construct, 'pressure' is the most commonly referred to fraud trigger for fraudulent behaviour from the perspective of our interviewed elite perpetrators. According to them, this pressure was mainly caused by exorbitant expectations of management, stock markets or other third





parties as well as workplace bullying, harassment or any kinds of unfair treatment at work in an atrocious corporate culture. 'If I were to evaluate the mentioned triggers [Fraud Triangle elements] by relevance, I have to give the pressure build up in the organization, the stressful situation, 100 per cent. There were internal frictions and the people harassed each other almost every day' (white-collar criminal number 4, 2010). In addition, a bad psychological state or an emotional imbalance can contribute the rest. 'The pressure has been psychological...so I have got no more power left to resist [within this situation]. I thought I could fix everything with the figures' (white-collar criminal number 2, 2010). The perceived pressure is described as particularly high in terms of increased likelihood for fraud, when both of the following circumstances are present: a difficult economic or social environment and an individual unfavourable psychological condition.

Furthermore, if a financial crime has already been committed (without detection), the fraudster commonly tries to undo or readjust the misfortune; in particular, if someone needs to be regarded as a 'fit and proper person' (Levi, 2010b) to continue a career in top management positions, for example, as a member of a supervisory board and so on. In their perception, 'there is hope to fix the previous or old fraud through another additional fraud. Worrying about being discovered' (white-collar criminal number 6, 2010). This attempt at getting the situation under control while being afraid of getting discovered, facing the risk of losing a predominantly excellent image and getting socially and professionally stigmatized can cause additional fraud-stimulating pressure. The more someone needs what is jeopardized, the more pressure he or she generally perceives.

Additional in-company actions may reduce pressure, for example, via implementing strategies to strengthen the corporate identity in order to boost team spirit and raise the visibility of company values. Improving the working climate and building up a culture of trust can decrease conflicts. Moreover, occupational incentives have to be kept within an acceptable framework, for example, a variable compensation system has to be regulated, in particular, if this system is based on short-term financial figures.

### **All Fraud Triangle elements are alterable to reduce fraud risks**

We presume that employers, top management and security staff as well as other responsible individuals in an organization are able to align their corporate environment to a low fraud risk culture in accordance with the Fraud Triangle elements. Even if fraudulent opportunities cannot be completely eliminated it should be possible to reduce the attractiveness and the feasibility by means of detective measures, which become as well preventive measures to a certain extend, because of its deterrence effect, for example, minimum accounting qualification requirements as well as initial understanding of fraud risks for members of supervisory bodies and leadership, a company individual tailored internal control system above and beyond legal requirements, a strict adherence to the double checking or four (or even better, six) eyes principle and improving detailed controls. Organizational weak points will be exploited mercilessly, which our respondents recognize – they understand that there is an existing opportunity – and quite openly admit: 'I recognized that there are no controls, this means the hole was open [and] opportunity is given' (white-collar criminal number 12, 2010). Moreover, a proper observance of the principles of corporate governance, a robust and transparent risk management as well as legal and regulatory compliance within the organi-



zation may also have an impact on this Fraud Triangle element. In addition, the 'tone at the top' permeates the whole company and is regarded as an essential topic in this context: if leaders do not behave with impeccable integrity in everyday business then they are scarcely in a position to demand this from their troops.

The Fraud Diamond element capability is identified in our empirical data analysis, though the interview questions intentionally and solely relate to the Fraud Triangle so our fraudsters were not asked about the Diamond explicitly. Some interviewees talked on their own initiative about the relevance of the hierarchical position of one's occupation as well as the know-how and comprehension to commit an 'upperworld' offence, which is assigned to this fourth element of the Fraud Diamond: '[My key position in the organization] enabled the fraud. I build up the internal controls with some colleagues and I have been the only person in the whole organization, who understood exactly how it works' (white-collar criminal number 11, 2010). Commonly, people who develop or work with an internal control system know most easily how to manipulate this; but that does not mean that they have any intention at all to do so.

Contrary to rationalizing crime, we detect a 'fraud-inhibiting inner voice' before the crime, which normally deters an individual from fraudulent behaviour. 'The inner voice has been there all the time, a "gut feeling", like a hammer, which always says: You are doing something wrong and you have a bad conscience' (white-collar criminal number 5, 2010). Our interviewees argue that this voice is highly influenced by the corporate culture in their companies and – at least in their cases – becomes quieter over time until the fraud occurs. 'This [fraud-inhibiting] inner voice was affected by conflicts and trench warfare from all sides within the company' (white-collar criminal number 1, 2010). 'The inner voice existed the first time and became quieter over time...then it [my fraudulent behaviour] became a habit' (white-collar criminal number 12, 2010).

According to Cressey (1953, p. 94), rationalizations 'were always present before the criminal act took place'. Data collection in this field of research generally takes place after an offender has committed the criminal act (Klenowski *et al*, 2010), so one might regard retrospective reflections – even if believed – as being contaminated. Our analysis seems to reveal that a few offenders try to push away some responsibility, for example, by arguing that controls were weak, pressure was high and so on and may regard themselves as a victim of unfortunate circumstances (Sykes and Matza, 1957) with an opportunity to 'solve' the problem. One might exaggerate and remark, some individuals simply drifted into this situation with limited self-control as a result and part of their environmental conditions. At the same time the argument can be interpreted as part of a rationalization. Hence, this Fraud Triangle element can only be identified in our empirical data analysis by means of our own subjective interpretation because the fraudsters do not make their crimes smaller than they are. If we take our respondents exactly at their word without 'over-analysing' the transcripts, none of them explicitly rationalize or neutralize their fraudulent behaviour. This notable finding does not preclude rationalization but shows that it is not a simple phenomenon. Rather the inner voice can be time- and situation-dependent, either fraud triggering or fraud inhibiting. This fact exemplifies the inner voice as alterable, not static and not left to chance; it can be influenced by external circumstances in a more or less desirable way, similar to opportunity as well as motivation.

In general, it appears conceivable that potential fraudsters may restrain themselves from white-collar crime caused by an intensification of the 'fraud-inhibiting inner voice', for



example, with promoting awareness creation and sensitization relating to the individual and overall consequences of white-collar crime. For manipulations, the white-collar stereotype has to know how internal systems work; commonly because of years of professional experience in the victimized company. Hence, the potential fraudster is hypothetically already in your company; therefore, we regard a continuous sensitivity training of employees in key positions, in supervisory bodies as well as in top management as crucial.

## Discussion

In contrast to literature findings and according to our interviewed ‘upperworld’ fraudsters, the Fraud Triangle can create a set of conditions for delinquency, but not every element is a mandatory precondition for white-collar crime. The Fraud Triangle does not thereby become unimportant but the exclusion of substitutability and the multiplicative approach should therefore be reassessed. Although opportunity is necessary but not a sufficient condition for fraud, our results also show that perceived pressure is salient to our fraudsters’ offences. As the empirical data analysis reveals, pressure – though a broad category and not a formal prerequisite of fraud – is the most commonly referred to fraud trigger for white-collar crime. Rather than conventional domestic ‘non-shareable problems’, this pressure was mainly caused by conditions in their companies. Therefore, even if in the real world, both a bullying culture and stakeholder greed are difficult to manage down, we presume that implementing strategies to strengthen the corporate ethos and effectively motivate legal behaviour, combined with a tailored internal control system (above and beyond legal requirements), are important and even essential anti-fraud measures. An improvement of the working climate and a strong tone at the top may not only reduce perceived pressure, but also strengthen the identified ‘fraud-inhibiting inner voice’ and, thus, contribute to a low fraud risk corporate culture.

### Why risk a lot for a marginal rise in income?

Heath (2008) reports that many crimes are committed by wealthy individuals on higher management floors in an organization. Hence, the question arises why fraud is not a less frequent phenomenon among these groups occupying respectable white-collar positions and who risk a lot for a marginal rise in income. Considering the benefit they can gain, ‘upperworld’ groups surprisingly frequently commit white-collar crimes (Coleman, 1989). This can be explained by the so-called ‘fear of falling’: offenders are afraid of losing what they have already attained (Spencer, 1959; Wheeler, 1992; Levi, 2010a; Piquero, 2012). Individuals in top management positions have usually worked hard to get what they have and where they are. If good results and achievements begin to crack, they put a lot of effort to doing all they can in order to salvage the situation while they can. In contrast, the ‘fear of failing’ or the fear of personal failure and shame to admit failed judgement or imprudent behaviour (Cressey, 1953; Stotland, 1977; Goldstraw-White, 2012) can be an essential factor, too, when committing fraud but may be less relevant than the ‘fear of falling’ (Levi, 2010a), which is able to enforce the perceived pressure in a stronger way.



## **Fraud without motivation and without rationalization?**

The Fraud Triangle received interest as well as criticism in the world of white-collar crime research. Having regard to the practical as well as scientific relevance, in the majority of the papers analysed, we found a brief or vague description of the Fraud Triangle elements; seldom with greater details about what these consisted of or illustrated explanations, for example, which are based on concrete empirical results and examples. The findings gained in the course of our empirical study with offenders indicate that not every Fraud Triangle element is required for the commission of all white-collar crimes. According to our Swiss and Austrian high profile perpetrators, opportunity alone is necessary but not a sufficient condition for financial trust violation. If these individuals have been faced with a lucrative business occasion, in their perspective, they tried to make use of this chance in carrying out their professional aims to do legal business. These fraudsters told us that there was no malicious intent, no criminal motivation to commit fraud and consequently no rationalization. We want to take our respondents' reflections seriously. Hence, we should acknowledge that white-collar crime can occur without motivation and rationalization; but with an existing opportunity. However, the Fraud Triangle does not lose its importance; rather the coercive 'must be' for every element has to be replaced by 'can be' or 'almost always is.' Overall, recent white-collar crime literature referred to in the sections above follow Cressey's (1953) conviction that all Fraud Triangle elements are mandatory before white-collar crime can occur. This imprecise and problematic assertion that the heuristic framework has to be complete for white-collar crime may be attributable to the meagre scrutiny of the Fraud Triangle's universal validity.

## **The Fraud Triangle: A heuristic framework for explaining financial fraud**

We agree with Donegan and Ganon (2008), who note that a generalization of the Fraud Triangle has to be considered with caution; it cannot be applied for every kind of fraud (for example, the causes and conditions of credit card fraud without corporate insider conspiracy may differ from those because of balance sheet manipulation). In addition, a distinction must be made between the reasons for white-collar crime: '...the reason why someone may contemplate an offence, can be different to the reason why it took place, and different again to why the offence continues' (Gill, 2011b, p. 28). At this point further research is required. Cressey's (1953) as well as Riemer's (1941) sample and the Fraud Triangle development are solely based on embezzlement. According to Donegan and Ganon (2008), the Fraud Triangle should be rejected as a 'general theory of financial crime' and is described as poorly suited for a universally valid explanation of economic crime. Instead of focusing solely on the Fraud Triangle, they appeal for a serious consideration of additional criminological approaches, which could be better able to explain the dynamics of white-collar crime. Ultimately, a closer cooperation between the managerial accounting/auditing and criminology research is recommended; this may create a win-win situation for both the disciplines and to help us account for a broader range of frauds.



## Conclusion

All Fraud Triangle elements are interwoven and highly influenced by companies. In general, there has to be more than a financial incentive for white-collar crime to occur. According to our Swiss and Austrian high profile perpetrators, pressure is underestimated by companies as a generator of white-collar offending. Beyond that and rather than rationalizations, we identify a 'fraud-inhibiting inner voice' before the crime, which normally deters an individual from fraudulent behaviour. This inner voice becomes quieter over time until the fraud occurs. Serious studies that systematically examine white-collar crime using interviews with high profile offenders are all too rare. Even if opportunities for white-collar crime cannot be completely eliminated, our results conclude that given this awareness and a willingness to change, all Fraud Triangle elements can be modified by the company.

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## References

- Albrecht, W.S. and Albrecht, C.O. (2004) *Fraud Examination and Prevention*. Mason: South-Western Educational.
- Austin, J.L. (1961) *Philosophical Papers*. Oxford: Clarendon Press.
- Babiak, P. and Hare, R.D. (2007) *Snakes in Suits: When Psychopaths Go to Work*. New York: Harper.
- Benson, M.L., Madensen, T.D. and Eck, J.E. (2009) White-collar crime from an opportunity perspective. In: S.S. Simpson and D. Weisburd (eds.) *The Criminology of White-collar Crime*. New York: Springer Science+Business Media, pp. 175–193.
- Blickle, G., Schlegel, A., Fassbender, P. and Klein, U. (2006) Some personality correlates of business white-collar crime. *Applied Psychology: An International Review* 55(2): 220–233.
- Bussmann, K.-D. and Werle, M. (2006) Addressing crime in companies: First findings from a global survey of economic crime. *British Journal of Criminology* 46(6): 1128–1144.
- Coates, J. (2012) *The Hour Between Dog and Wolf: Risk-Taking, Gut Feelings and the Biology of Boom and Bust*. London: Fourth Estate.
- Coleman, J.W. (1987) Toward an integrated theory of white-collar crime. *American Journal of Sociology* 93(2): 406–439.
- Coleman, J.W. (1989) *The Criminal Elite: The Sociology of White-collar Crime*, 2nd edn. New York: St. Martin.
- Coleman, J.W. (1992) Crime and money: Motivation and opportunity in a monetarized economy. *The American Behavioral Scientist* 35(6): 827–836.
- Coleman, J.W. (2001) The causes of white-collar crime and the validity of explanation in the social sciences. In: S.-A. Lindgren (ed.) *White-collar Crime Research: Old Views and Future Potentials*. Stockholm: National Council for Crime Prevention, pp. 55–68.

- Cressey, D.R. (1950) The criminal violation of financial trust. *American Sociological Review* 15(6): 738–743.
- Cressey, D.R. (1953) *Other People's Money: A Study in the Social Psychology of Embezzlement*. Glencoe: The Free Press.
- Cressey, R.D. (1952) Application and verification of the differential association theory. *The Journal of Criminal Law, Criminology, and Police Science* 43(1): 43–52.
- Cressey, R.D. (1954) The differential association theory and compulsive crimes. *The Journal of Criminal Law, Criminology, and Police Science* 45(1): 29–40.
- Croall, H. (2001) *Understanding White Collar Crime*. Milton Keynes: Open University Press.
- Dhami, M.K. (2007) White-collar prisoners' perceptions of audience reaction. *Deviant Behavior* 28(1): 58–77.
- Donegan, J.J. and Ganon, M.W. (2008) Strain, differential association, and coercion: Insights from the criminology literature on causes of accountant's misconduct. *Accounting and the Public Interest* 8(1): 1–20.
- Dorminey, J.W., Fleming, A.S., Kranacher, M.-J. and Riley, R.A. (2010) Beyond the fraud triangle: Enhancing deterrence of economic crimes. *The CPA Journal* 80(7): 17–24.
- Farber, D. (2005) Restoring trust after fraud: Does corporate governance matter? *The Accounting Review* 80(2): 539–561.
- Gill, M. (2011a) Fraud and recessions: Views from fraudsters and fraud managers. *International Journal of Law, Crime and Justice* 39(3): 204–214.
- Gill, M. (2011b) Learning from fraudsters' accounts of their offending. *Prison Service Journal* 194: 27–32.
- Golden, T.W., Skalak, S.L. and Clayton, M.M. (2006) *A Guide to Forensic Accounting Investigation*. New Jersey: Wiley.
- Goldstraw-White, J. (2012) *White-collar Crime: Accounts of Offending Behaviour*. Basingstoke: Palgrave Macmillan.
- Heath, J. (2008) Business ethics and moral motivation: A criminological perspective. *Journal of Business Ethics* 83(4): 595–614.
- Howe, M.A. and Malgwi, C.A. (2006) Playing the ponies: A \$5 million embezzlement case. *Journal of Education for Business* 82(1): 27–33.
- Klenowski, P.M., Heith, C. and Mullins, C.W. (2010) Gender, identity, and accounts: How white collar offenders do gender when making sense of their crimes. *Justice Quarterly* 28(1): 46–69.
- LaSalle, R.E. (2007) Effects of the fraud triangle on students' risk assessments. *Journal of Accounting Education* 25(1/2): 74–87.
- Levi, M. (2002) Suite justice or sweet charity? Some explorations of shaming and incapacitating business fraudsters. *Punishment & Society* 4(2): 147–163.
- Levi, M. (2008) *The Phantom Capitalists: The Organization and Control of Long-firm Fraud*, 2nd edn. Aldershot: Ashgate.
- Levi, M. (2010a) Individual differences and white-collar crime. In: P. Wilcox and F.T. Cullen (eds.) *Encyclopaedia of Criminological Theory*. London: Sage Publications, pp. 469–473.
- Levi, M. (2010b) Serious tax fraud and non-compliance: A review of evidence on the differential impact of criminal and noncriminal proceedings. *Criminology & Public Policy* 9(3): 493–513.
- Levi, M. and Burrows, J. (2008) Measuring the impact of fraud in the UK: A conceptual and empirical journey. *British Journal of Criminology* 48(3): 293–318.
- Loebbecke, J.K., Eining, M.M. and Willingham, J.J. (1989) Auditors' experience with material irregularities: Frequency, nature, and detectability. *Auditing: A Journal of Practice & Theory* 9(1): 1–28.
- Lou, Y.I. and Wang, M.L. (2009) Fraud risk factor of the fraud triangle assessing the likelihood of fraudulent financial reporting. *Journal of Business & Economics Research* 7(2): 61–78.
- Marden, R. and Edwards, R. (2005) Internal controls for the small business: Skimming and the fraud triangle. *Internal Auditing* 20(1): 3–10.
- Mills, C.W. (1940) Situated actions and vocabularies of motive. *American Sociological Review* 5(6): 904–913.
- Nettler, G. (1974) Embezzlement without problems. *British Journal of Criminology* 14(1): 70–77.
- Ones, D. and Viswesvaran, C. (2001) Integrity tests and other criterion-focused occupational personality scales (COPS) used in personnel selection. *International Journal of Selection and Assessment* 9(1/2): 31–39.
- Piquero, N.L. (2012) The only thing we have to fear is fear itself: Investigating the relationship between fear of falling and white-collar crime. *Crime & Delinquency* 58(3): 362–379.
- Punch, M. (1996) *Dirty Business: Exploring Corporate Misconduct*. London: Sage.
- Punch, M. (2000) Suite violence: Why managers murder and corporations kill. *Crime, Law and Social Change* 33(3): 243–280.





- Rierner, S.H. (1941) Embezzlement: Pathological basis. *Journal of Criminal Law and Criminology* 32(4): 411–423.
- Romney, M.B., Albrecht, W.S. and Cherrington, D.J. (1980) Auditors and the detection of fraud: The authors provide a unique fraud-risk-evaluation questionnaire. *The Journal of Accountancy* 149(5): 63–69.
- Sakurai, Y. and Smith, R.G. (2003) Gambling as a motivation for the commission of financial crime. *Trends and Issues in Crime and Criminal Justice* 256: 1–6.
- Schnatterly, K. (2003) Increasing firm value through detection and prevention of white-collar crime. *Strategic Management Journal* 24(7): 587–614.
- Shover, N. and Hochstetler, A. (2006) *Choosing White-collar Crime*. Cambridge, UK: Cambridge University Press.
- Slapper, G. and Tombs, S. (1999) *Corporate Crime*. London: Longman.
- Spencer, J.C. (1959) A study of incarcerated white-collar offenders. In: G. Geis (ed.) *White-collar Criminal: The Offender in Business and the Professions*. New York: Atherton Press, pp. 335–346.
- Stotland, E. (1977) White collar criminals. *Journal of Social Issues* 33(4): 179–196.
- Sutherland, E.H. (1940) White-collar criminality. *American Sociological Review* 5(1): 1–12.
- Sutherland, E.H. (1941) Crime and business. *Annals of the American Academy of Political and Social Science* 217(1): 112–118.
- Sutherland, E.H. and Cressey, D.R. (1960) *Principles of Criminology*. Philadelphia: Lippincott.
- Sykes, G.M. and Matza, D. (1957) Techniques of neutralization: A theory of delinquency. *American Sociological Review* 22(6): 664–670.
- Weisburd, D. and Waring, E. (2001) *White-collar Crime and Criminal Careers*. New York: Cambridge University Press.
- Wheeler, S. (1992) The problem of white-collar crime motivation. In: K. Schlegel and D. Weisburd (eds.) *White-collar Crime Reconsidered*. Boston: Northeastern University Press, pp. 108–123.
- Willott, S., Griffin, C. and Torrance, M. (2001) Snakes and ladders: Upper-middle class male offenders talk about economic crime. *Criminology* 39(2): 441–466.
- Witzel, A. (2000) The problem-centered interview. *Qualitative Social Research* 1(1), Article 22.
- Wolfe, D.T. and Hermanson, D.R. (2004) The fraud diamond: Considering the four elements of fraud. *The CPA Journal* 74(12): 38–42.
- Zietz, D. (1981) *Women Who Embezzle or Defraud: A Study of Convicted Felons*. New York: Praeger.