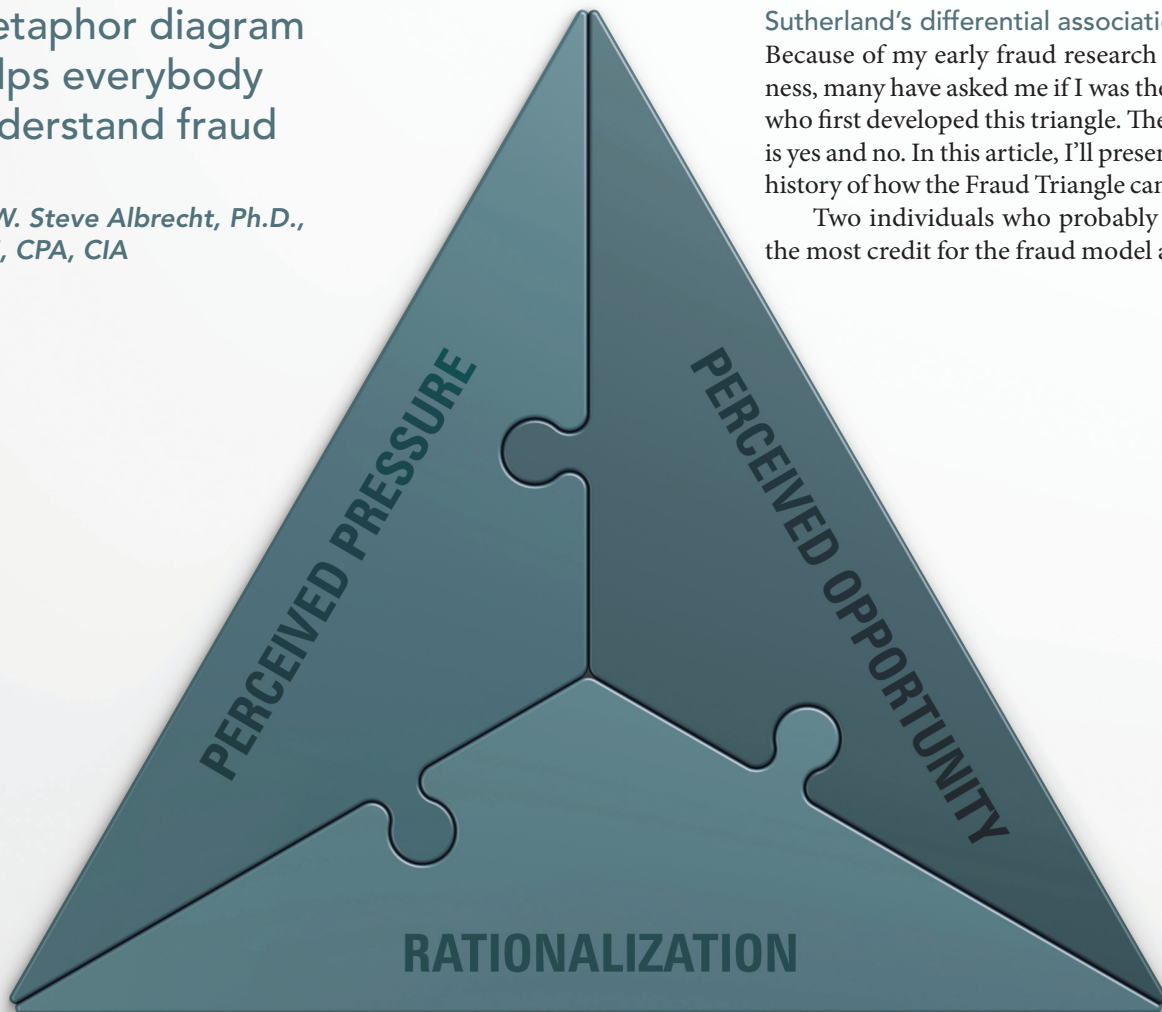


# Iconic Fraud Triangle endures

Metaphor diagram  
helps everybody  
understand fraud

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All students of anti-fraud principles — whether in higher education or on the job — eventually learn about the seminal Fraud Triangle. We can find this diagram in fraud examination, accounting, auditing and marketing literature. The Fraud Triangle is universally accepted in almost every setting in which fraud is described or analyzed.

The triangle states that individuals are motivated to commit fraud when three elements come together: 1) some kind of perceived pressure 2) some perceived opportunity and 3) some way to rationalize the fraud as not being inconsistent with one's values. (See Figure 1: "The Fraud Triangle" on page 48.)

**Sutherland's differential association**  
Because of my early fraud research in business, many have asked me if I was the person who first developed this triangle. The answer is yes and no. In this article, I'll present a brief history of how the Fraud Triangle came to be.

Two individuals who probably deserve the most credit for the fraud model are early

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criminology researchers Edwin Sutherland and Donald Cressey. Sutherland developed the “differential association” theory of why people commit crimes. In his view, criminal behavior is linked to a person’s association with a criminal environment. He believed that people encounter various social influences throughout their lives. Some individuals have social interactions with individuals having criminalistic tendencies and so become criminals as a consequence of this association. The major elements of Sutherland’s differential association theory can be summarized as follows (Sutherland and Cressey, 1978):

- Criminal behavior is learned; it’s not inherited, and the person who isn’t already trained in crime doesn’t invent criminal behavior.
- Criminal behavior is learned through interaction with other people through the processes of verbal communication and example.
- The principle learning of criminal behavior occurs with intimate personal groups.
- The learning of crime includes learning the techniques of committing the crime and the motives, drives, rationalizations and attitudes that accompany it.
- A person becomes delinquent because of an excess of definitions (or personal reactions) favorable to the violation of the law.

(See “Criminology,” by Edwin Hardin Sutherland and Donald Ray Cressey, Lippincott, 1978.)

The essence of Sutherland’s argument is that persons who engage in criminal behavior have accumulated enough feelings and *rationalizations* in

favor of law violation that outweigh their pro-social definitions. Criminal behavior is learned and will occur when perceived rewards for criminal behavior exceed the rewards for lawful behavior or *perceived opportunity*. Thus, while not directly introducing the Fraud Triangle, Sutherland did introduce the concepts of rationalizations and opportunities.

#### Father of the triangle elements

The person who should get the most credit for developing the fraud triangle was Donald Cressey — a co-author with and student of Edwin Sutherland. In both a November 1951 article, “Why Do Trusted Persons Commit Fraud? A Social-Psychological Study of Defalcators,” in the *Journal of Accountancy*, and on page 973 of his 1953 book, “Other People’s Money, A Study in the Social Psychology of Embezzlement” (published by Patterson Smith), he defined the fraud problem as a “violation of a position of financial trust” that the person originally took in good faith. To quote from his book:

- Trusted persons become trust violators when they conceive of themselves as having a financial problem that is non-sharable, are aware that this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their contacts in that situation verbalizations which enable them to adjust their conceptions of themselves as users of the entrusted funds or property. (In other words, they’re able to rationalize their dishonest actions, and so they aren’t — in their minds — inconsistent with their personal codes of conduct.)

One of the creators of the venerable Fraud Triangle describes its history, rationale and uses for preventing, deterring, detecting and investigating fraud (and other crimes).

He stated that for embezzlement to occur, there must be: 1) a non-sharable problem, 2) an opportunity for trust violation and 3) a set of rationalizations that define the behavior as appropriate in a given situation. He wrote that none of these elements alone would be sufficient to result in embezzlement; instead, all three elements must be present.

He developed this theory based on in-depth interviews with those convicted of trust violations. He claimed that all the cases he studied conformed to the three-step process. While he identified the three elements that we now refer to as the Fraud Triangle, he never drew or referred to them as a triangle nor used the term “fraud triangle.” He also limited his discussion to embezzlement and not to fraud in general. However, if there’s one individual who should be called the father of the elements of the Fraud Triangle, it’s Donald Cressey.

Sutherland and Cressey, both criminologists, were professors and researchers teaching criminology in sociology departments. Aside from Cressey’s 1951 *Journal of Accountancy* article, we have no evidence that either ever published in business literature.

### 1979 KPMG study explores ‘why’

In 1979, KPMG granted \$40,000 to five researchers, including me, to study fraud and how it could be detected. The other four researchers were Marshall B. Romney, David J. Cherrington, I. Reed Payne and Allan V. Roe. While I am an accounting professor, Romney is an information systems professor, Cherrington is an organizational professor, Payne was a criminology professor and studies sociology, and Roe was a psychologist working with convicted criminals at the Utah State prison. (See “How to Detect and Prevent Business Fraud,” by W. Steve Albrecht, Marshall B. Romney, David J. Cherrington, I. Reed Payne and Allan V. Roe, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1982.)

In the study, we both interviewed and studied many convicted fraud

perpetrators and performed a comprehensive, interdisciplinary literature search related to why people commit fraud. As we examined the various sources and studied the fraud perpetrators, we compiled a comprehensive list of all variables that appeared to influence or be associated with the perpetration of fraud. In total, we identified 82 fraud-related variables. We classified these variables, which we called “red flags,” into three major categories representing the forces that influence the decision to commit or not commit fraud.

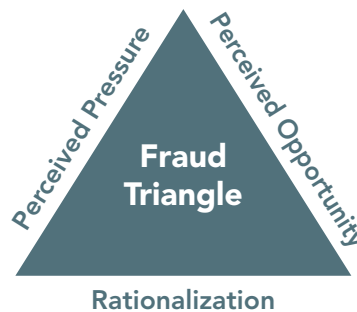


Figure 1: The Fraud Triangle

We concluded, similarly to Cressey, that it was the combination of three forces that produces a fraudulent act. We labeled the three factors as:

- Situational pressures.
- Opportunities to commit fraud.
- Personal integrity (character).

However, we differed from Cressey’s assessment in that we didn’t state that the situational pressures needed to be non-sharable. Rather, we concluded that situational pressures refer to the immediate pressures that individuals experience within their environments.

### Pressures and opportunities

We concluded that the most overwhelming pressures are usually high personal debts or financial losses. We wrote that pressures could also be generated by strong peer-group influences and even

by company directives to achieve unrealistic performance objectives at any cost.

We dichotomized situational pressures into two groups: 1) those that encourage individuals to commit fraud for the company rather than against the company, such as not meeting analysts’ forecasts of revenues, gross margin or earnings, delisting from a stock exchange or having a cash shortage and 2) those that encourage individuals to commit fraud against organizations.

We also concluded that opportunities to commit fraud are those that individuals create for themselves as well as those a company creates through careless internal controls and in other ways. For example, individuals can create opportunities to commit fraud by increasing their knowledge of the company’s operations, by advancing to positions of trust and by being the only persons who know particular procedures, such as modifying the computer programs.

A company can increase opportunities for employee fraud by allowing related-party transactions, having a complex business structure, using several different auditing or legal firms or by having a very weak system of internal controls. We concluded that anything that contributes to the capability of perpetrating or concealing a fraud increases the opportunities for it.

### Complexities of integrity

Personal integrity refers to the personal code of ethical behavior each person adopts. While this factor appears to be a straightforward determination of whether the person is honest or dishonest, research on moral development indicates that the issues are more complex.

Some individuals have developed a general trait of honesty that we called high personal integrity. These individuals would normally be expected to act honestly at all times, unless the situational pressures or opportunities to be dishonest were extremely strong.

Individuals with low personal integrity may or may not behave honestly — depending on the situation. There might be particular situations in which they consistently behave honestly, but their honesty doesn't generalize to other situations and isn't internalized as a personal value. Their behavior is influenced more by the situation: the opportunity to be dishonest, the probable gain from cheating, the likelihood of getting caught, the severity of punishment and the perceived need for more money. Most individuals are between these two extremes. They generally believe in honesty, but they can be tempted by convenient opportunities and intense situational pressures.

### In the balance

We found that the decision to commit fraud is determined by the interaction of all three forces. We concluded that a useful way to visualize the interaction is to picture a balance scale (see Figure 2, "Fraud: Three Key Variables" at right) with three connecting bars at the top. Each of the three connected bars has a weight that can move independently of the other weights, in either direction. Thus, the combination of the three continua (or bars) — along with the locations and sizes of the three weights — determines to which side the scale will tilt.

We concluded that the three factors interact to determine whether the person will or won't commit fraud. A person with a high level of personal integrity and no opportunity or pressure to commit fraud will most likely behave honestly. However, fraud becomes more likely as individuals with less personal integrity are placed in situations with increasing pressures and greater opportunities to commit fraud.

In this additive model, all the variables contributing to fraud accumulate in each case until the force or weight is sufficient to result in a fraudulent act transpiring. For example, fraud could theoretically occur under any situation if a person is motivated enough — even in the absence of outward opportunities or pressures.

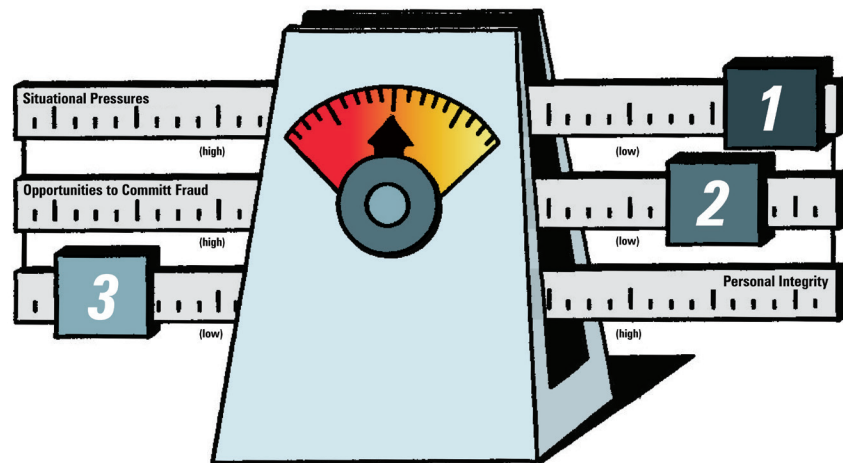


Figure 2: Fraud: Three Key Variables



More likely, a situational pressure at a personal level, such as a debt or loss, would have to be combined with a predisposition to partial dishonesty for a crime to take place. Pressures at the organizational level, such as others who have cheated or a lack of accounting controls, would also increase the likelihood for fraud.

Opportunities in general — or a specific opportunity in an individual case — increase the potential for fraud. Further removed but still relevant are the societal variables that might provide conducive attitudes, such as the rationale for a double standard (one at home, another at work). Lack of immediate punishment or absence

of threat may influence taking a risk and being dishonest. If the individual has a strong, generalized honesty characteristic, he may theoretically withstand the cumulative weight of all the variables described, although some might argue that “every person has a price.”

We first published our research monograph in 1979. We then edited and published it as a Prentice Hall book in 1982. At that time, our major contributions to the future fraud triangle were: 1) we generalized beyond embezzlement to all kinds of frauds 2) using the balance scale diagram, we stated that the three elements of the eventual triangle are interactive and that if more of one variable is present, less of the other elements are needed and 3) we labeled the third variable as personal integrity instead of rationalization, although we stated that it was easier for someone with lower or situational integrity to rationalize engaging in fraudulent behavior.

Over time and through conducting many more research projects, I personally came to agree that Cressey’s labeling of the third element as a way to rationalize the behavior as not being inconsistent with one’s personal code of conduct was more accurate than our label of personal integrity.

At that time, I was conducting many other research studies and writing several other articles — some with my previous co-researchers and some alone. I was also consulting with many corporations and serving as an expert witness in many large fraud cases. One day while conducting a fraud seminar for the employees of a large paper company, I was

talking about the three elements that motivate a person to commit fraud. A person in my class said “Professor Albrecht, that is very much like the Fire Triangle.” He explained to me the premise of the fire triangle (see Figure 3: “The Fire Triangle” below) is that fire requires heat, fuel and oxygen.

Triangle” below) is that fire requires heat, fuel and oxygen.

I realized that the Fire Triangle related well to fraud because firefighters know that a fire can be extinguished by removing any one of the three elements. They often eliminate oxygen by smothering burning materials, using chemicals or causing explosions. Firefighters most commonly eliminate heat by pouring water on fires, and they remove fuel by building fire lines or firebreaks or by shutting off the source of the fuel.

I started calling the three elements that motivate fraud the “fraud triangle” and began stating that we can prevent fraud by extinguishing any one of the three elements of the triangle. Here’s what I wrote in a 1991 journal publication: “Research has shown that individuals commit fraud when a combination of three factors exist: (1) perceived pressure, (2) perceived

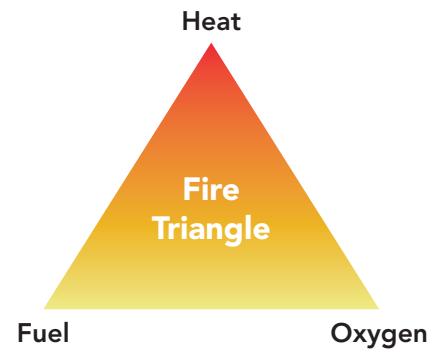


Figure 3: The Fire Triangle

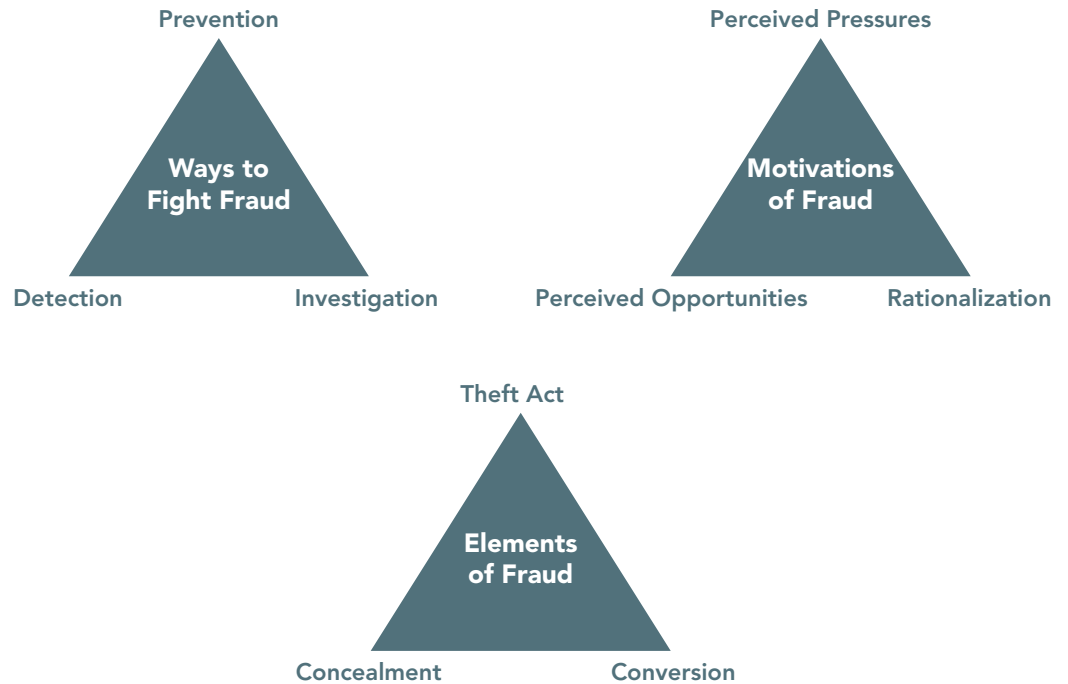


Figure 4: Three Fraud-related Triangles

opportunity to commit and conceal, and (3) a way to rationalize the behavior as acceptable. These three factors combine to create the 'fraud triangle.'” (I even included quotation marks around the term because I hadn't heard it used before.) “The fraud triangle is very much like the 'fire triangle.' In order to have a fire, three conditions must exist: there must be oxygen, heat and fuel. If any one of these is removed, there will be no fire. Likewise with fraud: if either the pressure, opportunity or rationalization is removed, fraud does not occur.” (See “Fraud in Government Entities: The Perpetrators and the Types of Fraud,” by W. Steve Albrecht, *Government Finance Review*, December 1991, pp. 27-30.)

I described this Fire Triangle in some research and in the first fraud book that I wrote in 1995. (See “Fraud: Bringing Light to the Dark Side of Business,” by W. Steve Albrecht with Gerald W. Wernz and Timothy L. Williams, Richard D. Irwin, Inc., Chicago, Illinois, 1995.)

In my early research and after interviewing and studying many additional perpetrators, I added another development to the Fraud Triangle. I became convinced that neither the pressure nor the opportunity elements of the Fraud Triangle needed to be real but rather only perceived. For example, in “Fraud: Bringing Light to the Dark Side of Business,” after I described the three elements of the fraud triangle, I wrote:

*“The three elements of (1) perceived pressure, (2) perceived opportunity, and (3) ability to rationalize are common to every fraud. Neither the pressure nor the opportunity has to be real. An observer may look at a fraud and say ... you didn't have the kinds of pressures to do something like that and you should have known you would get caught. However, it doesn't matter what the observer or anyone else besides the perpetrator thinks. If he perceives a pressure and an opportunity and can rationalize his behavior, he is likely to commit fraud.”*

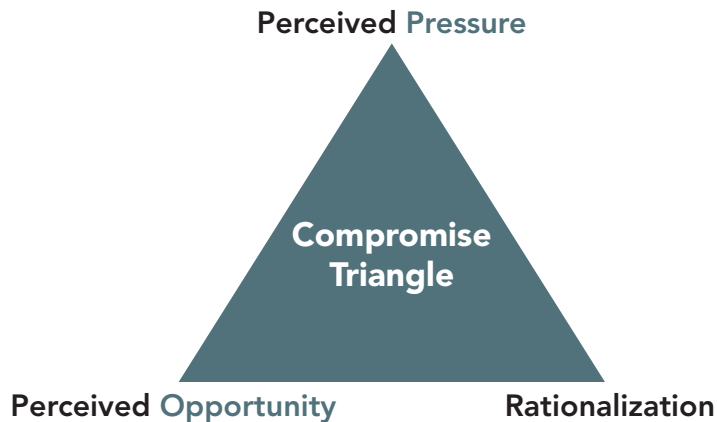


Figure 5: The Compromise Triangle

It didn't take long for anyone interested in writing about fraud to begin using the Fraud Triangle. For example, in 2002, the Auditing Standards Board of the American Institute of Certified Public Accountants used the Fraud Triangle as a critical element of “SAS 99: Consideration of Fraud.” President Josiah Bartlet's aides discussed the Fraud Triangle in an episode of the television show, “The West Wing.” (<http://tinyurl.com/mkgzo3r>)

#### Even more triangles

After conducting many research studies through the years, I'm now convinced that *three* triangles are relevant to understanding fraud. (See Figure 4: “Three Fraud-related Triangles” on page 50.)

The top right triangle in Figure 4 is the traditional Fraud Triangle that we've been discussing. The bottom triangle is the three actual elements of a fraud: 1) the theft act 2) the concealment of the fraud and 3) conversion in which the perpetrator spends the stolen money, converts what was stolen to cash and then spends the cash or — in the case of fraud committed on behalf of the company uses the increased bonuses — higher stock price sales or other assets indirectly received to benefit both the company and him- or herself.

The top left triangle represents three ways to fight fraud. An organization can either spend its fraud-fighting money: 1) preventing fraud (the most efficient and effective use of resources) 2) detecting fraud (the second most efficient and effective use of resources) or 3) investigating fraud (the least efficient and effective way to spend fraud-fighting resources).

Unfortunately, we see so much fraud, in part, because organizations don't work on many elements of these three triangles. Most organizations aren't proactive (top left triangle) in trying to prevent or detect fraud or dealing with perceived fraud pressures or rationalizations to commit fraud (the Fraud Triangle). They do have internal controls to help prevent perceived fraud opportunities. However, internal controls are only *one* way that organizations can reduce perceived fraud opportunities. And they don't understand the elements of the fraud (bottom triangle). So, they deal with emerging frauds as crises and usually perform hurried ad hoc investigations with inconsistent actions. They lurch from fraud to fraud.

#### Explaining more than just fraud: 'Compromise Triangle'

As I've worked with fraud triangles and fraud symptoms (red flags) over my

career as a researcher, expert witness, consultant and professor, I've come to realize that we can use the Fraud Triangle to explain more than just fraud. In fact, I often now refer to it as the Compromise Triangle (see Figure 5 above). Whether it's fraud or any other type of compromise, the same three elements — perceived pressure, perceived opportunity and some way to rationalize the compromise as not being inconsistent with one's code of conduct — are always present.

For example, consider the student who cheats in school. The student might say: 1) I need to cheat to get a good grade in order to keep my scholarship — a perceived pressure 2) the professor left the room during the test — a perceived opportunity and 3) everyone cheats a little — a rationalization.

The same is true of someone who gets too much change at the grocery store and

doesn't return it. That person might say: 1) I need this money — perceived pressure 2) they gave it to me — a perceived opportunity and 3) they'll never miss it, it's their mistake anyway — a rationalization.

Or, consider the person who breaks the speed limit while driving. That person might say: 1) I'm late — a perceived pressure 2) I won't get caught — a perceived opportunity and 3) everyone breaks the speed limit — a rationalization.

Finally, consider the husband or wife who isn't true to their marriage partner. That person might rationalize by saying: 1) I need a caring female or male companionship — a perceived pressure 2) he or she likes me and is making advances towards me — a perceived opportunity and 3) my wife or husband doesn't love or care about me anymore — a rationalization. The three elements from the Fraud Triangle are always present and can help

us understand why we make compromises in our lives.

While there have been many challenges to the Fraud Triangle, I'm convinced that, as modified by subsequent researchers, it — and subsequent models — have stood the test of time and are still as relevant as ever. The triangle metaphor continues to be extremely useful in helping anyone better understand fraud. ■ **FM**

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