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Creativity in Auditing: Theoretical and Practical Concepts to Enhance Auditors' Recognition of and Responses to Fraud Risk

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I. Introduction

Arguably, auditors' ability to prevent and detect fraud undermines confidence in audit services and capital markets more than in any other event. In the absence of an element of surprise, a historical mainstay of auditing, the discovery of certain fraud types continues to be dismal among auditors (ACFE, 2021). The urgency of effective auditing exists now, perhaps more than ever, because the business culture associated with the Enron collapse persists (e.g., Benke, 2021; EY, 2022), regulators remain concerned about auditor behaviors (O'Dwyer, 2022) amid a robust pipeline of enforcement actions (PCAOB, 2021; Roland, 2022). Together with prior research (e.g., Leone, et al., 2013) that provides evidence of how auditors can be swept up in market frenzies and may not act as effective gatekeepers particularly during euphoric times, enhancing fraud cue detection among auditors remains an eminent challenge.

The purpose of this study is to discuss theoretical and practical implications of how individual and environmental creativity can enhance auditors' fraud detection. On a practical level, application of AU-C240 Consideration of Fraud in a Financial Statement Audit (AICPA, 2021) introduces the theoretical foundations of individual and environmental creativity to auditing (measured in multiple ways). Related standards (e.g., AS 2110.52, PCAOB, 2010; SEC, 2019) complemented by recent research from Herron and Cornell (2021) and Davis, Herrera, and McClain (2021) provide the motivation for auditors using creativity in response to market and regulator expectations in order to improve financial reporting quality.

Auditors face pressures to follow standardized procedures amid an atmosphere of litigation risk, enforcement oversight, and firm- and industry-specific procedures, thus crowding out other, nonstandard audit efforts. Additionally, Westermann, Cohen, and Trompeter (2019) report that fears about inspections from the Public Company Accounting Oversight Board (PCAOB) have driven firms to adopt inefficient and ineffective work practices (e.g., excessive documentation, a decrease in critical thinking as a result of a box-ticking approach to auditing) amid criticism that the audit process is incapable of uncovering what appear to be readily apparent financial frauds (Brown Jr., 2021). Likewise, the limitations of traditional brainstorming, as codified in the professional standards (i.e., AU-C 240.15, AICPA, 2021; AS 2110.52, PCAOB, 2010; SEC, 2019) demand improvement (Mullen et al., 1991; Markman, 2017).

Even though creativity is among the most studied constructs in the social sciences (Williams et al., 2016), creativity is often mischaracterized as "sudden flashes of insight and great leaps of imagination" (Weiten, 2008, 266). As a foundation, Taylor (1988) defines creativity as a mental process involving the generation of new ideas or concepts, or new associations between existing ideas or concepts. Other environmental and individual factors also may influence creativity, including: how the social work environment receives creative behavior (Mumford and Gustafson, 1988), whether strict regulation and enforcement exist in the work environment (e.g., Trentmann, 2021; Westermann et al., 2019), how urgent is a need for a response (Kruglanski et al., 1993), and a respondent's style of thinking (Eysenck and Keane, 2005).

Creativity, especially in applied settings, is often associated with ideas derived from deep experience and training in a specific area of expertise (Weiten, 2008) and goes beyond how brainstorming has been conceptualized in auditing (Carpenter, 2007; Hoffman and Zimbelman, 2009). To help meet the demands for improved auditing, we discuss theoretical and practical aspects of creativity. We provide specific ideas for how individual and group ideation combined with a work environment wherein creativity is encouraged facilitates auditors' abilities to creatively introduce elements of surprise into audits, and thereby better detect fraud.

II. Auditor Creativity

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Creativity is a mental process involving generating new ideas or concepts or new associations between existing ideas or concepts. Conceptually, individual and team creativity (e.g., Coursey et al., 2018) both oppose and complement standardized practices (Herron and Cornell, 2021). For example, efficiencies from standardization should free up time for creative thinking and problem-solving (e.g., Chae and Choi, 2018). However, following standardized protocols in audit planning and execution often results in a same as last year approach (e.g., Bedard and Johnstone, 2004, 2010), which is not only devoid of creativity but also ignores potential fluctuations in risk since the prior audit period.

Creativity research recognizes the need to discover or identify a problem before it can be solved. This process is referred to as problem identification or problem finding wherein "a certain question is found" (Wertheimer 1945, 123). Additionally, problem recognition such as fraud risk assessment in auditing is likely distinct from problem response or developing an audit plan (e.g., Okuda et al., 1991). Whether problem finding or problem response is creative depends on the respondent's everyday level of creativity as defined by generating new ideas (Runco et al., 2001) and implementing unpredictable (or surprising) recommendations in the audit context (Wilks and Zimbelman, 2004).

Prior self-reported survey research among accountants indicates that auditors (in particular) may be low in creative dimensions (e.g., Bedard, 1989; Bedard, Mock, and Wright, 1999; Bryant et al., 2011), especially as compared to professionals in fields that demand consistent generation of new and innovative ideas (e.g., marketing, entrepreneurship). But Carpenter (2007) shows that brainstorming, which is arguably a group-level creative process, helps auditors identify fraud risk—although limitations to the implementation of brainstorming are established (e.g., Mullen, Johnson, and Salas, 1991; Markman, 2017).

Auditors recognizing fraud cues and responding to perceived fraud risk requires creativity in analysis and strategic thinking—an aspect of creativity that may be enhanced in an adversarial setting critical for identifying deceptive behaviors and information (e.g., Dean, Fahsing, and Gottschalk, 2007; Schul et al., 1996; Mayer and Mussweiler, 2011). Evidence suggests that accountants can demonstrate creativity in multiple ways (Davis, Herrera, and McClain, 2021) and that auditors have sufficient creativity to influence fraud recognition and response (Herron and Cornell, 2021). Future research on the theoretical and practical implementation of creativity in auditing and fraud detection can provide the foundation for enhanced guidance to individual auditors and auditing firms.

Factors of Creativity

Research by Herron and Cornell (2021) relied upon two primary types of creativity measures (creativity scales), with corresponding sub-measures (creativity sub-scales): 1) environmental influences and 2) personal characteristics extrapolated from a broader four-dimension model of creativity originally proposed by Rhodes (1961). Established scales provide a foundation to measure a creative place, a creative person, a creative product, and a creative process. Some commonly used scales include the Siegel Scale of Support of Innovation that measures the creative environment (Siegel and Kaemmerer, 1978), Kruglanski's Need-for-Cognitive-Closure scale that measures individual differences in the need for certainty (Kruglanski et al., 1993), the Runco Ideational Behavior Scale that measures creative ideation (Runco et al., 2001), and the Cognitive Style Inventory that measures differences in cognitive styles that affect creativity (Cools and Van den Broeck, 2007).

Within an auditing context, a creative environment is associated with the nature of a firm's culture, including the legal concerns, and externally imposed professional standards that tend to foster a bureaucracy (Hood and Koberg, 1991). Mumford and Gustafson (1988) find that whether individuals respond to problems creatively depends on their perceptions of how creative behavior will be received within an organization (see also Amabile and Pratt, 2016). Those perceptions, in turn, are related to how much support and encouragement individuals receive about the risks they face when making mistakes—i.e., creativity-contingent rewards (punishment) tend to increase (decrease) creative performance (Byron and Khazanchi, 2012). Additionally, people are more likely to be creative when given permission (or are even required) to do so (Parnes and Meadow, 1959). Conversely, according to established procedures, threatening or highly critical evaluation undermines creativity (Amabile, 1979, 1982; Amabile et al., 1990).

Among aspects of an individual's creativity is the ability to generate new ideas on an everyday basis, individuals' creative cognitive styles, and individuals' innate needs for certainty and closure. Termed creative ideation, individuals who think of new approaches to cooking instead of strictly following a recipe; or changing out distasteful song lyrics while singing along with the radio; or even imagining alternative (but plausible) story endings tend to be more creative than individuals who do not think of other possibilities. In an audit setting, auditors should generate new or unusual procedures

or consider new (but plausible) ways that an auditee could commit and conceal fraud to identify and respond to fraud risk more effectively. Creative ideation has proven to be an essential measure of creative production since both the quality and quantity of creative output can be measured (Radio et al., 1989; Lindauer, 1993; Amabile et al., 1994).

Cognition refers to the mental processes involved in gaining knowledge and conception—including perception, thinking, knowing, remembering, reasoning, judging, and problem response (e.g., Eysenck and Keane, 2005). Cognitive (or thinking) styles are described as relatively fixed individual preferences for perceiving, assimilating, and processing information. Prior research on cognitive styles shows that they influence the way we recognize environmental cues, how we organize and interpret that information, and how we use those interpretations are associated with the capacity for creativity (e.g., Cools and Van Den Broeck, 2008).

Creative cognition is composed of three sub-parts or styles: a) knowledge style, which emphasizes logic, objectivity, and precision; b) improvisational style that emphasizes unstructured and nonroutine ways of assimilating and processing information; and c) a creating style that emphasizes subjectivity, impulsivity, and openness to possibilities. The more flexible a thinking style—the more it should elicit plausible or practical creative thoughts. Of these three, the improvisational thinking style would provoke more creative thinking, while a knowledge style would be less so. A creating style also would tend to produce more creative ideas—except in the case of constraining guidelines, procedures, or rules such as those that auditors routinely follow.

An individual's need for closure, "the desire to possess some definite knowledge on a given topic" (Mayseless and Kruglanski, 1987), provides an important final component of individual creativity that we identify as creative preference. Everyone desires some sense of closure, of course, or decisions would never be made. Such desire varies individually and is driven by social, circumstantial, and cultural variations (Van Hiel and Mervielde, 2002). Someone with a high need for closure tends to prefer more order, predictability, and (most importantly) decisiveness relative to someone with a low need for closure. For these reasons, high levels of need for closure also tend to foster close-mindedness, which is the antithesis of creative thought.

III. Creativity Research in Accounting

Key Research Findings: Creativity and Fraud Cue Recognition and Response

Herron and Cornell (2021) uncovered insightful associations between auditors' creativity and their abilities to recognize and respond to fraud cues. Notably, the associations are representative of all four overall measures of creativity in relation to fraud cue recognition, including creative place, creative person, creative product, and creative process. Two aggregate creativity measures—creative ideation, measured by the Runco Ideational Behavior Scale (Runco et al., 2001) and creative preferences measured by Kruglanski's Need-for-Cognitive-Closure scale (Kruglanski et al., 1993) as well as multiple subcomponents of the four overall creativity measures showed promise for explanatory and predictive variance among fraud cue detection. Of particular interest related to fraud cue detection is creative ideation, the everyday ability to generate new and novel ideas that measure innate individual creativity.

Herron and Cornell (2021) also found that a creative workplace environment that cultivates a sense of ownership in and support of auditors' work fosters an atmosphere conducive to recognizing more and better fraud cues. Work environments that are perceived as conducive to creative or flexible thinking tend to be more supportive of creative or different thinking, are tolerant of differences in approaches to work tasks, or foster employee commitment to either their work or employer.

Likewise, auditors' abilities to tolerate uncertainty and ambiguity in their work (e.g., in thought, hypotheses, explanations, or information) lead to more flexible thought processes necessary for better fraud cue recognition. Similarly, auditors' abilities to remain open-minded to the possibility of fraud (potentially related to skepticism) and having an improvisational style of thinking (associated with being comfortable with improvising, as opposed to relying solely on a plan, program or checklist) are significantly more effective at detecting fraud cues. On the other hand, aspects of an auditor's need for cognitive closure are inversely related to detecting fraud cues. That may be associated with a reluctance to change audit procedures (even in response to known or perceived fraud risk). For example, a higher need for closure may support an increased willingness to accept client information prima facie.

The key overall finding in Herron and Cornell (2021), however, was the extent to which individuals' unique creativity (creative ideation) was associated with auditor's responses to perceived fraud risk in excess of recognizing seeded

cues. While multiple other aspects of creativity also remained predictive, this finding provides compelling evidence of the unique association between auditor creative ideation, the everyday ability to generate new and novel ideas, and auditor effectiveness at recognizing, planning, and responding to potential fraud.

Davis, Herrera, and McClain (2021) identified ten key aspects of accountant creativity—adaptability, courage, curiosity, embracing failure, empathy, grit, mindfulness, reflection, vulnerability, and creation—that deserve additional empirical research support for their explanatory and predictive value for auditor effectiveness. Herron and Cornell (2021) identified that creativity—especially individual ideation, but also improvisational thinking and environmental support—can enhance audit findings and responses amidst procedural standardization.

Taken together, recent research on creativity provides a foundation to improve (or supplant) the implementation of traditional brainstorming procedures in auditing. Consequently, emerging interest and evidence on key roles of creativity in work effectiveness, including auditing amidst standardization and intense pressure, provides a foundation for future research.

IV. Practical Implementation of Creativity in Auditing

Accounting and auditing face intense competitive pressures, strict regulatory enforcement, and ongoing threats of legal liability. To date, evidence suggests that firms have responded to enforcement and liability risks through even more rigorous standardization and redoubling efforts to follow established procedures and documentation requirements (e.g., Westermann, 2019). Though prior research suggests that accountants lack creativity (Bryant et al., 2011), everyone is creative at some level (Barron, 1995).

For the individual auditor, creative ideation, the trait creativity aspect of generating new ideas (Agogue et al., 2015; Eysenck, 1994; Guilford, 1957, 1967; Runco and Richards, 1998; Runco et al., 2001), and the creative professional environment (Amabile and Pratt, 2016; Mumford and Gustafson, 1988) are the best predictors of the ability to generate novel solutions to the complex problem of detecting potential fraud cues and responding to perceived fraud risk (Herron and Cornell, 2021). Environments that foster (or even reward) creativity will tend to reap its rewards—while punitive environments that stifle creativity will suffer. In other words, just as ability is a necessary skill to commit fraud, ability alone is insufficient without opportunity—so the abilities of the most creative auditor would be similarly constrained without an opportunity to exercise creative talents.

Based upon extant research, we make recommendations for implementing, encouraging, and documenting creativity in auditing. These recommendations could be used to enhance auditing and fraud detection and as the foundation for future research. Although not an exhaustive list, the recommendations provide significant potential to improve auditing standards and best auditing practices.

Train Auditors to Think Like a (Creative) Fraudster

Auditors' creative ideation (or everyday creativity) is a crucial component of success in any complex task. Consequently, improving ideation in auditors may yield relatively more results than any other—or at least provide a strong baseline for encouraging other aspects of creativity. Using Taylor's (1988) definition of creativity (i.e., a mental process involving the generation of new ideas or concepts, or new associations between existing ideas or concepts), we recommend game playing to enhance this form of creativity—e.g., asking trainee auditors to each write different endings to a short story or substitute lyrics in a popular song, trying variations within standard recipes, rearranging furniture in an office or other room.

From there, we recommend segueing into audit and fraud topics through more advanced games or brainstorming enhancement techniques like brainwriting (VanGundy, 1984)—wherein each participant in a group of three—six sequentially (e.g., triangle, square, circle) seated members is given a sheet of paper and asked to generate three ideas about some topic (e.g., how sales fraud may be structured) within five minutes. All group or team members would then pass their ideas consistently to either the right or left, where each receiver would build upon the ideas received and/or generate three new ideas inspired by the information received. This process would continue until the papers reach their original contributors. When all ideas have been collected, each should be openly discussed to build or improve on those ideas that show the most plausibility or potential. Many other games or activities to enhance personal ideation could easily be adapted to auditor training, so availability would not be a limiting factor.

Additionally, audits have a compilation (or list) of standard audit procedures that create routinization and standardization. Firms and managers could provide training on how each standard audit procedure could be more likely circumvented or manipulated, and which audit procedures to rely upon most to be effective. That is, train auditors to think like fraudsters, not just with initial fraud-theft events but also in subsequent concealment and conversion activities (Mintchik and Riley, 2019).

Audit managers could determine which standard audit procedures were used in previous engagements and understand why those particular procedures were chosen or assigned. Then, audit managers should consider (e.g., through strategic reasoning and brainstorming among audit teams) how each procedure could be circumvented. That is, the audit team should be encouraged to think creatively about how fraud could be committed and then augment those standard procedures (e.g., used during prior years) with additional new procedures to detect initial frauds and possible concealment. In this way, creative audit teams can work to deter and detect potentially creative actions of fraudsters.

Re-Introduce the Element of Surprise

Formal theoretical and practical training in kinesics, statement analysis and/or other interviewing techniques to better identify deceptive indicators during client interviews also may provide auditors with more creative skills in recognizing and responding to fraud cues. Standard audit procedures and newly-introduced procedures should be modified to introduce an element of surprise to the audit client—e.g., changes in sampling methods or techniques like varying locations, timing, strata of elements sampled. Using more sophisticated probability models or analytical techniques that would be unexpected to client management (e.g., Poisson Distribution or other statistical models, analytical ratio decomposition techniques, or even mixing standard ratios with nonstandard numerators or denominators (e.g., sales/full-time equivalent number of employees, sales/square feet of floor space, sales/average balance sheet property, plant, and equipment), or even more 'usual' procedures that have not been frequently used could all introduce an element of surprise client management does not anticipate.

Since audit standards already recommend brainstorming (and analytical reasoning) as a mechanism to enhance audit quality (AICPA, 2021; IAASB, 2018), recommendations to improve auditors' ability to detect fraud should logically become an extension of those activities. Regardless, in all cases, auditors should be asked the same nonstandard question regarding adding a nonstandard audit procedure: "If you were completely free to do anything in auditing (a specific aspect of an audit) what else would you do, how many hours would you budget for the additional procedure(s), and why?" In any case, always attempt to augment standard procedures previously used (e.g., during the prior audits) with procedures NOT previously used.

Foster a Creative Work Environment

Aside from technical training, audit firms also may enhance workplace environments to facilitate their creative efficacy for auditors. A commitment to the work environment and audit work via programs aimed at being more encouraging and supportive of auditors' feelings of belonging, their having a more significant personal stake in employer success and understanding the importance of their work and contributions are all key components of fostering a work environment that is conducive to creativity.

Audit managers also should encourage tolerance of uncertainty and ambiguity during work assignments by reassuring (and planning for) auditors to take sufficient time for task management. Being open-minded to the possibilities of fraud, data manipulation, or forged and altered documentation, for example, should be encouraged through management practices and training. Likewise, improvisational thinking and the ability to pursue perceived fraud risk outside of prescribed audit programs or checklists also should be encouraged as key components of training, brainstorming, and debriefing sessions.

Document Creative Approaches to Audits

Key aspects of auditor creativity must be documented in work papers. For example, each decision to use more (less) time on previously used audit techniques should not simply state what an auditor would do differently, but why (i.e., what the auditor hoped to accomplish vis-à-vis standard, usual, or prior audit procedures). Auditors and teams should document an explanation of their intended purpose or approach toward creative surprise. Work paper documentation is key to continuity among audit teams—especially across time, leads to best practices and training materials, and helps regulators

understand auditor thought processes. Together, documentation of creativity in planning and executing audits could provide long-term value to individual clients and audit firms' overall capabilities, capacity, and competencies.

Future Research: Can Creativity be Learned?

Research among children and adults provides evidence that non-creative behavior is learned through conformity to societal mainstreaming with genius-level creativity diminishing almost entirely upon reaching adulthood (Land and Jarman, 1998). For decades, corporate training programs intended to develop creativity capacities have been proposed and executed. Well-designed creativity training programs typically induce gains in performance with these effects generalizing across criteria, settings, and target populations. An examination of the factors contributing to the relative effectiveness of these training programs indicated that more successful programs were likely to focus on the development of cognitive skills and the heuristics involved in skill application, using realistic exercises appropriate to the domain at hand (Scott, Leritz, and Mumford, 2004; Mejia, D'Ippolito, and Kajikawa, 2021). A key aspect of successful creativity training is *unlearning* existing norms, policies, and procedures (Turak, 2011) based upon learned assumptions (VanGundy, 2005) that impose artificial limits on creative problem-solving.

Although there is no single solution among the myriad available for implementing creativity into work and workplace environments (e.g., Richtel, 2019) particularly as work environments evolve due to the COVID-19 pandemic just as there is no single facet of creativity, prior research in auditing provides strong evidence that doing so should significantly improve auditors' abilities to recognize more and better fraud cues—and in determining more and better ways of responding to perceived fraud risk. Work environments that allow, foster, facilitate, and even reward divergent thinking will be rewarded with more creatively capable auditors—which, in turn, should be useful in fraud detection and response, but will likely provide benefits in other areas of work practice (e.g., remote auditing, flexible work arrangements including work from home). Future research should investigate how distributed audit teams can engender environments that foster creative responses to complex challenges, including fraud cue detection.

Overall, emerging research provides an understanding of the relationship between creativity and judgment among auditors. Despite the impediments of a strict regulatory and legal liability environment, individual and workplace creativity including creative ideation is associated with improvements in auditing, fraud cue detection, and fraud cue response. Future research, standards, and implementation of processes that motivate creativity among auditors are key to enhancing the quality of financial reporting.

References

Agogue, M., Levillain, K., and Hooge, S. (2015). Gamification of creativity: Exploring the usefulness of serious games for ideation. *Creativity and Innovation Management, 24*, 415–429.

Amabile, T. M. (1979). Effects of external evaluation on artistic creativity. *Journal of Personality and Social Psychology*, 37: 221–233.

Amabile, T. M. (1982). The social psychology of creativity: A consensual assessment technique. *Journal of Personality and Social Psychology*, 43(5): 997–1013.

Amabile, T. M., Goldfarb, P., and Brackfield, S. C. (1990). Social influences on creativity: Evaluation, coaction, and surveillance. *Creativity Research Journal*, 3: 6–21.

Amabile, T.M., Hill, K. G., Hennessey, B. A., and Tighe, E. M. (1994). The work preference inventory: Assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology*, 66(5): 950–967.

Amabile, T. and Pratt, M. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior*, 36, 157–183.

American Institute of Certified Public Accountants (AICPA). (2021). AU-C 240.15 Consideration of Fraud in a Financial Statement Audit. New York: AICPA. https://us.aicpa.org/content/dam/aicpa/research/standards/auditattest/downloadabledocuments/au-c-00240.pdf

Association of Certified Fraud Examiners (ACFE). (2021). Report to the nations. 2020 global study on occupational fraud and abuse. https://www.acfe.com/report-to-the-nations/2020/

Barron, F. (1995). *No Rootless Flower: An Ecology of Creativity*, Cresskill, NJ: Hampton Putnam.

Bedard, J. C. (1989). Archival investigation of audit program planning. *Auditing: A Journal of Practice and Theory*, 9(1):57–71.

Bedard, J. C. and Johnstone, K. M. (2004). Earnings manipulation risk, corporate governance risk, and auditors' planning and pricing decisions. *The Accounting Review*, 79(2): 277–304.

Bedard, J. C. and Johnstone, K. M. (2010). Audit partner tenure and audit planning and pricing. *Auditing: A Journal of Practice and Theory*, 29(2): 45–70.

Bedard, J., Mock, C. T. and Wright, A. (1999). Evidential planning in auditing: A review of the empirical research. *Journal of Accounting Literature*, 18, 96–142.

Benke, G. (2021). Twenty years later, Enron's business tactics still haunt us. *The Washington Post Co.*, December 2.

Brown Jr., J. R. (2021). The future of audit oversight, speech given January 15 at *Baruch College*. https://tinyurl.com/y2kdyfvz

Bryant, S. M., Stone, D., and Wier, B. (2011). An exploration of accountants, accounting work, and creativity. *Behavioral Research in Accounting*, 23(1):45–64.

Byron, K. and Khazanchi, S. (2012). Rewards and creative performance: A meta–analytic test of theoretically derived hypotheses. *Psychological Bulletin*, 138(4): 809–830.

Carpenter, T. (2007). Audit team brainstorming, fraud risk identification, and fraud risk assessment: Implications of SAS No. 99. *The Accounting Review*, 82(5): 1119–1141.

Chae, H., and Choi, J. N. (2018). Routinization, free cognitive resources, and creativity: The role of individual and contextual contingencies. *Human Relations*, 72(2), 420–443.

Cools, E. and Van Den Broeck, H. (2007). Development and validation of the cognitive style indicator. *Journal of Psychology Interdisciplinary and Applied*, 141(4): 359–387.

Cools, E. and Van Den Broeck, H. (2008). The hunt for the heffalump continues: Can trait and cognitive characteristics predict entrepreneurial orientation? *Journal of Small Business Strategy*, 18(2): 23–41.

Coursey, L. E., Paulus, P. B., Williams, B. C., and Kenworthy, J. B. (2018). The Role of Individual Differences in Group and Team Creativity. In *Explorations in Creativity Research, Individual Creativity in the Workplace* (Eds. R. Reiter–Palmon, V. L. Kennel, and J. C. Kaufman), Academic Press: 311–338.

Davis, C. E., Herrera, A., and McClain, R. (2021). Developing creative accountants. *Strategic Finance*, April 21.

Dean, G., Fahsing, I.A., and Gottschalk, P. (2007). Creativity as a Determinant of Thinking Style in Police Investigations. *International Journal of Police Science and Management*, 9(2): 112–121.

EY. (2022). Global Integrity Report 2022: Tunnel vision or the bigger picture? https://www.ey.com/en_gl/forensic-integrity-services/how-a-focus-on-governance-can-help-reimagine-corporate-integrity

Eysenck, H. J. (1994). The measurement of creativity. In *Dimensions of Creativity*, (199–242), M. Boden (Ed.), Cambridge, MA: Cambridge University Press.

Eysenck, M. and Keane, M. (2005). *Cognitive Psychology* (5th. Ed), New York: Psychological Press.

Guilford, J. P. (1957). Creative abilities in the arts. *Psychological Review*, *64*(2): 110–118.

Guilford, J. P. (1967). *The Nature of Human Intelligence.* New York: McGraw–Hill.

Herron, E. and Cornell, R. (2021). Creativity amidst standardization: Is creativity related to auditors' recognition of and responses to fraud risk cues? *Journal of Business Research*, 132: 314–326.

Hoffman, V.B. and Zimbelman, M. (2009). Do strategic reasoning and brainstorming help auditors change their standard audit procedures in response to fraud risk? *The Accounting Review*, 84(3): 811–837.

Hood, J.N. and Koberg, C. S. (1991). Accounting firm cultures and creativity among accountants. *Accounting Horizons*, 5: 12–19.

International Auditing and Assurance Standards Board (IAASB). (2018). 2018 Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements. https://www.iaasb.org/publications/2018-handbook-international-quality-control-auditing-review-other-assurance-and-related-services-26

Kruglanski, A.W., Webster, D.M., and Klem, A. (1993). Motivated resistance and openness to persuasion in the presence or absence of prior information. *Journal of Personality and Social Psychology*, 65(5): 861–876.

Land, G. and Jarman, B. (1998). *Breakpoint and Beyond: Mastering the Future Today* (2nd ed.). San Francisco: HarperBusiness.

Leone, A.J., Rice, S., Weber, J.P. and Willenborg, M. (2013). How do auditors behave during periods of market euphoria? The case of Internet IPOs. *Contemporary Accounting Research*, 30: 182–214.

Lindauer, M. (1993). The span of creativity among long–lived historical artists. *Creativity Research Journal*, 6(3): 221–230.

Markman, A. (2017). Your team is brainstorming all wrong. *Harvard Business Review*, May. https://hbr.org/2017/05/your-team-is-brainstorming-all-wrong

Mayer, J. and Mussweiler, T. (2011). Suspicious spirits, flexible minds: When distrust enhances creativity. *Journal of Personality and Social Psychology*, 101(6): 1262–1277.

Mayseless, O. and Kruglanski, A.W. (1987). What makes you so sure? Effects of epistemic motivations on judgmental confidence. *Organizational Behavior and Human Decision Processes*, 39: 162–183.

Mejia, C., D'Ippolito, B., and Kajikawa, Y. (2021). Major and recent trends in creativity research: An overview of the field with the aid of computational methods. *Creativity and Innovation Management*, 30:475–497

Mintchik, N. and Riley, J. (2019). Rationalizing fraud: How thinking like a crook can help prevent fraud. *CPA Journal*, (April). https://www.cpajournal.com/2019/04/15/rationalizing-fraud/

Mullen, B., Johnson, C., and Salas, E. (1991). Productivity loss in brainstorming groups: A meta-analytic integration. *Basic and Applied Social Psychology*, 12(1): 3–23.

Mumford, M. D. and Gustafson, S. B. (1988). Creativity syndrome: Integration, application, and innovation. *Psychology Bulletin*, 103(1): 27–43.

O'Dwyer, M. (2022, January 10). KPMG admits 'misconduct' as regulator alleges forgery by Carillion auditors. Financial Times. https://www.ft.com/content/fb22432a-ebd1-45ea-8966-0bac7953efd3

Okuda, S. M., Runco, M. and Berger, D. E. (1991). Creativity and the findings and solving of real-world problems. *Journal of Psychoeducational Assessment*, 9: 45–53.

Parnes, S. and Meadow, A. (1959). Effects of brainstorming instructions on creative problem solving of trained and untrained auditors. *Journal of Educational Psychology*, 50: 171–176.

Public Company Accounting Oversight Board (PCAOB). (2010) AS 2110.52: Identifying and Assessing Risks of Material Misstatement, Discussion of the Potential for Material Misstatement Due to Fraud. https://pcaobus.org/oversight/standards/auditing-standards/details/AS2110

Public Company Accounting Oversight Board (PCAOB). (2018). Release No. 2018-006: Amendments to Auditing Standards for Auditor's Use of the Work of Specialists. https://pcaobus.org/Rulemaking/Docket044/2018-006-specialists-final-rule.pdf

Public Company Accounting Oversight Board (PCAOB). (2021, September 29). Release No. 105-2021: Enforcement Actions. https://pcaobus.org/oversight/enforcement/enforcement-actions

Radio, J., Runco, M., Barclay, K., and Ford, T. (1989). Ideational creativity, experience, and two cognitive processes. *Creativity Research Journal*, 2: 137–148.

Rhodes, M. (1961). An Analysis of Creativity. *Phi Delta Kappan*, 42: 305–310.

Richtel, M. (2019, January 31). How to be creative, *The New York Times*. https://www.nytimes.com/guides/year-of-living-better/how-to-be-creative

Roland, N. (2022, January 10). US SEC has 'robust pipeline" of enforcement cases involving auditors, auditing firms, Grewal says. *mLex Market Insight*. https://mlexmarketinsight.com/news/insight/us-sec-has-robust-pipeline-of-enforcement-cases-involving-auditors-auditing-firms-grewal-says

Runco, M.A., Plucker, J. A., and Lim, W. (2001). Development and psychometric integrity of a measure of ideational behavior. *Creativity Research Journal*, 13: 394–400.

Runco, M.A. and Richards, R. (1998). *Eminent Creativity, Everyday Creativity, and Health.* Norwood, NJ: Ablex.

Schul, Y., Burnstein, E., and Bardi, A. (1996). Dealing with deceptions that are difficult to detect: Encoding and judgment as a function of preparing to receive invalid information. *Journal of Experimental Social Psychology*, 32: 228–253.

Scott, G., Leritz, L. E., and Mumford, M. D. (2004). The effectiveness of creativity training: A quantitative review. *Creativity Research Journal*, 16(4): 361–388.

Securities and Exchange Commission. (2019). Public Company Accounting Oversight Board; Order Granting Approval of Auditing Standard 2501, Auditing Accounting Estimates, Including Fair Value Measurements, and Related Amendments to PCAOB Auditing Standards. https://www.sec.gov/rules/pcaob/2019/34-86269.pdf

Siegel, S. M. and Kaemmerer, W. F. (1978). Measuring the perceived support for innovation in organizations. *Journal of Applied Psychology*, 63(5): 553–562.

Taylor, C. W. (1988). Various approaches to and definitions of creativity. *The Nature of Creativity*: Contemporary Psychological Perspectives, 99–124, R. J. Sternberg (Ed.), New York: Cambridge University Press.

Trentmann, N. (2021). U.K. watchdog finds Deloitte, former partners failed to challenge Autonomy's accounting. *The Wall Street Journal*, January 6. https://tinyurl.com/y5ceawk7

Turak, A. (2011, May 22). Can creativity be taught? *Forbes*. https://www.forbes.com/sites/augustturak/2011/05/22/can-creativity-be-taught/?sh=4f847bc91abb

VanGundy, A.B. (1984). Brain writing for new product ideas: An alternative to brainstorming. *Journal of Consumer Marketing*, 1(2): 67–74.

Van Hiel, A. and Mervielde, I. (2002). Effects of ambiguity and need for closure on the acquisition of information. *Social Cognition*, 20(5): 380–408.

Weiten, W. (2008). *Psychology: Themes and Variations* (7) Boston: Thomson Learning.

Wertheimer, M. (1945). *Productive Thinking*. New York: Harper and Row.

Westermann, K. D., Cohen, J., and Trompeter, G. (2019). PCAOB inspections: Public accounting firms on "trial." *Contemporary Accounting Research*, 36(2):1–38.

Wilks, T.J. and Zimbelman, M. (2004). Using game theory and strategic reasoning concepts to prevent and detect fraud. *Accounting Horizons*, 18(3):173–184.

Williams, R., Runco, M., and Berlow, E. (2016). Mapping the themes, impact, and cohesion of creativity research over the last 25 years. *Creativity Research Journal*, 28(4), 385–394.