

# Conjuring a Reality: The Magic of the Practice of Accounting

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## Abstract

**Purpose:** Recently, magic has been given increasing attention by psychologists for what it can reveal about how the human cognitive system works. This paper examines whether these same cognitive processes are at play in another arena, specifically, the presentation of financial accounting information.

**Approach:** The authors reviewed the findings of cognitive scientists from their studies of magicians and applied these to the activities of professional accountants.

**Findings:** Specific cognitive processes which magicians and accountants take advantage of, explicitly for one and implicitly for the other, are the same: good continuation, habituation, and attentional capture.

**Value:** Further research regarding such interactions between accounting and cognition has potential for enhancing our understanding of both. Certainly at this particular point in accounting history, as standard setters seem to be moving ever closer to implementing some version of a principles-based accounting regime versus our current rules-based accounting regime, it is worthwhile to contemplate the conscious and subconscious effects of cognitive processes on how individuals perceive financial information.

**Keywords:** magic, accounting, human cognitive system, cognitive process, good continuation, habituation, attentional capture, cognition, conscious effect, subconscious effect, perception, financial information, conjure

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## Introduction

The first chapter of a book about the theory of entertainment magic leads off with a succinct definition: “The performance of magic employs a method (how the trick works) to produce an effect (what the spectator perceives)” (Lamont and Wiseman 1999, p. 1). Professional magicians deliberately trick spectators’ cognitive processes into perceiving an unreal effect produced through the use of a real method unknown to the spectators. The word “real” here means consistent with humans’ evolved common sense of how the physical world works. However, spectators know that they are being tricked, that their perceptions are mistaken and are not to be trusted, and that despite appearances, their understanding of reality has not been violated. They are entertained by the ability of the magician to create the apparently unreal effect and by the challenge of discovering the magician’s real method for producing it.

Textbook accounting does not resemble magic; one might even say it is its antithesis. Ethical professional accountants do not deliberately trick spectators’ perceptions; rather, they produce faithful representations of economic reality through the use of well-known, transparent methods. The word “reality” here means the activities in which an enterprise engages to convert resource inputs into product outputs. Spectators can trust accountants, the accountants’ representations, and the underlying economic reality being represented. Unlike with magic, audiences are not entertained by a performance taking place before their eyes; rather, they are informed by the content of pre-prepared statements. If accountants can be said to perform, they do so elsewhere in private and not in front of spectators.

A familiar ontological discussion within the scholarly accounting community is that there is nothing that qualifies as *the* economic reality; rather, *a* reality is created by every accounting representation. Individual activities, resource inputs, and product outputs are all created concurrently with their representation. This is not to say that there is no economic reality, but it has no inherent accounting form. It has to be structured, and every representational structure requires choices regarding what pieces of reality are worth categorizing, what categories are created, and what is put in each category. This is an instance of the “Word Magic” effect (Ogden 1936): “The Word Magic effect of a category term is that it leads unwary users to believe that the category thus named really exists. One way of looking at this is to say that the category or class – any category or class – really does exist as a *mental* reality if a name for that category exists in the language” (Bellos 2011, p. 27, italics added). For example, there really *are* assets, liabilities, equities, income and expenses, despite the sometimes considerable difficulty and bitter conflict determining what is what.

Subsequent to accounting’s categorizations, choices must be made regarding what categories are to be included, and how they are to be included, in the financial statement representation and what parts are to be excluded from it. In effect, this builds an additional level upon the “Word Magic” effect in which the linguistic/numeric representation of an enterprise is taken to be an

iconic image of the enterprise. In other words, entities (accounting representations of enterprises) are real because they are made up of other entities that are real (accounting categories) because they have been named. However, no representation can be wholly trusted as it is never wholly comprehensive and never wholly indisputable, and no spectator is unequivocally informed, let alone entertained.

In effect, magic and accounting both employ a sort of trickery. In magic, magicians trick complicit spectators about physical reality: what they had believed to be impossible appears to be possible. In accounting, accountants and their audiences are complicit in tricking themselves about economic reality: what they believe to be real is indeed real and what they believe not to be real is indeed not real. One might say that everyone in the public arena conjures a reality (politicians, executives, journalists, artists, etc.), but these realities are unhesitatingly recognized for what they are: opinions of their creators. In contrast, those realities conjured by accounting are physical artifacts having official certification.

But does accounting employ the same sort of trickery of cognitive processes as does magic, or for that matter, is it even reasonable to call it trickery at all? Magic concerns what is possible or impossible for real objects to do; accounting concerns whether entities and reported transactions are real or not. Are spectators' perceptions of what magicians are making objects do before their eyes cognitively tricked in the same way as audiences' perceptions of whether the transactions with which accountants have populated the financial statements are real and whether the transactions which accountants have excluded from the financial statements are not? Does either sort of trickery exploit the same cognitive fallibilities of investors with which behavioral finance and economics have been concerned?

As is true of a magic show, there is more to these questions than meets the eye, and each of the following sections explores an important dimension of the magic of the practice of accounting. Section II asserts that magic is *not* simply an engaging metaphor for accounting; rather, accounting *is* magic, albeit magic that through familiarity fails to elicit the sense of wonder one expects from real magic. Section III argues that like magic, accounting is a performance: not in a theater or available to view by download from the Internet but a performance nonetheless. Following a short outline of the principal features of the theory of magic in section IV, section V describes how accounting exploits the same cognitive processes as does entertainment magic. Section VI concludes with a brief summary of the implications for the practice of accounting and future accounting research were one to explore more deeply the cognitive bases upon which both magic and accounting depend.

## | Magic and metaphor

What is magic? In his article "Explaining the 'Magic' of Consciousness", the philosopher Daniel Dennett (2003) uses magic as a metaphor in posing the question whether the phenomenon of consciousness is real magic or not:

*Real magic*, in other words, refers to the magic that is not real, while the magic that is real, that can actually be done, is not real magic... (It is) *stage* magic, a set of phenomena that exploit our gullibility, and even our desire to be fooled, bamboozled, awestruck... It cannot be *real* if it is explicable as a phenomenon achieved by a bag of ordinary tricks-cheap tricks, you might say (Dennett 2003, p. 7–8)<sup>4</sup>.

According to the Oxford English Dictionary (<http://www.oed.com/>), the primary definition of the word “magic” is “the use of ritual activities or observances which are intended to influence the course of events or to manipulate the natural world, usually involving the use of an occult or secret body of knowledge.” Thus, the practice of accounting is not literally magic, as it concerns the social world, not the natural world and it is not occult. Of course, accounting is often perceived by novices and outsiders as much more objective (“natural”) than the social construction it actually is. Certainly the practice of accounting can be figuratively and satirically likened to magic. Critics (and more than a few students) have described it with such words and phrases as “manipulation,” “agencies of a secret or mysterious nature,” “beyond ordinary understanding or knowledge,” “abstruse, mysterious,” “inexplicable,” “without any apparent explanation,” etc., and all of these phrases are used in other Oxford English Dictionary definitions<sup>5</sup>. However, the real question is whether there might be parallels between magic and the practice of accounting lying between these poles of perfect identity and pejorative metaphor.

The point Dennett made in his article is that there is nothing truly magical or supernatural about consciousness; it can be explained by what is known, or at least knowable, about the physiology of the brain. But even though the “how” of consciousness might not be magical, the “why” of consciousness might well be. Physicist Eugene P. Wigner, in his Richard Courant Lecture in Mathematical Sciences entitled “The Unreasonable Effectiveness of Mathematics in the Natural Sciences”, concluded:

The miracle of the appropriateness of the language of mathematics for the formulation of the laws of physics is a wonderful gift which we neither understand nor deserve. We should be grateful for it and hope that it will remain valid in future research and that it will extend, for better or for worse to our pleasure even though perhaps also to our bafflement, to wide branches of learning (Wigner 1960, p. 14).

Although neither the word “magic” nor the word “occult” is used in the article, the frequent use of the word “miracle” conveys a similar sense that mathematics is “an inexplicable and remarkable influence producing surprising results” and has “an enchanting or mystical quality” about it, again employing dictionary phrases. There is indeed something magical about consciousness of the natural world and the ability to know it through mathematics. With regard to accounting, it has come to feel

<sup>4</sup> There would likely be less confusion in English, had the word “illusion” not been replaced by the word “magic” to refer to a staged performance. Polish, for example, retains a linguistic distinction between *iluzja* and *magia*.

<sup>5</sup> In the film *The Smartest Guys in the Room*, Enron CFO Andrew Fastow is referred to as a “sorcerer,” while the song playing in the background is *That Old Black Magic*. The authors are indebted to an anonymous reviewer for this interesting popular cultural reference.

perfectly natural that certain records of certain economic activities can be assembled into a faithful representation of an enterprise. Nowadays, that an enterprise consists of its assets and its liabilities and equities and that it transforms itself through income and expenses is certainly considerably less miraculous, or considerably less magical, than an equation equating energy and mass that expresses a fundamental structural principle of the universe. But prior to the widespread acceptance of double-entry bookkeeping, the accounting would have been regarded as pretty amazing.

Neither psychologists nor mathematicians nor accountants resemble magicians performing stage magic. Howsoever it might appear to those outside these professions, they do nothing “as though accomplished by supernatural means or trickery” or “without any apparent explanation.” But there is nonetheless something magical about what they concern themselves with (consciousness and mathematics and markets) and what they produce (mathematical models of the natural world and financial models of the economic world). They share with their audiences the illusion that there is no real magic involved, while stage magicians create the illusion that there is. If magical illusions are produced in the course of performances, then what sorts of performances, if any, produce accounting illusions?

## | Magic and performance

At the heart of the profession of stage magician is performance in front of an audience, just as the word “stage” would suggest. This is not literally true of psychologists, mathematicians, or accountants. Although accountants are rarely, if ever, found dressed in evening clothes and bathed in spotlights on a stage in a theatre fronted by a marquee featuring their names, they, like all other professionals, have audiences for their work. These are the investors, regulators and other stakeholders having an interest in the economic performance of an enterprise. Magicians are well aware of the importance of their relationship with the audience:

Magicians understand the careful interactions of secret and performance and have learned to appreciate the art for these subtleties... The success of a magician lies in making a human connection to the magic, the precise focus that creates a fully realized illusion in the minds of the audience (Steinmeyer 2003, p. 17).

Accountants, however, act as if there were an impenetrable wall between themselves and their audiences. Financial statements in the United States are certified as having been prepared in accordance with generally accepted accounting principles, ostensibly objective standards that render them free of biases, partialities, prejudices, etc. These completed statements are passed over the wall to anonymous others, who are free to make of them what they will.

Yet the wall is a Chinese wall, a pretense or illusion, that the parties on either side have agreed to maintain. Magicians are under no illusions that “... a magic show is a piece of theatre”, and

“Jean Robert Houdini was famous for the opinion that a magician is actually just an actor playing the part of a (real) magician” (Steinmeyer 2003, p. 17). Likewise, considering the ontological discussion in the preceding section, financial statements are also pieces of theatre, purported faithful representations of an economic reality for which no truly faithful representation is possible. Accountants are actors playing the part of accountants, pretending to possess skills at reification that do not exist. Still, accountants and their audiences are under an illusion denying this.

With a skeptical audience, magicians face a difficult task:

A great magic performance consists of a collection of tiny lies, in words and deeds, that are stacked and arranged ingeniously to form the battlement for an illusion. It's a delicate battle of wits – an audience that welcomes being deceived, then dares to be fooled, alternately questioning, prodding, and surrendering. A great magician seems always to play catch-up to their thoughts but secretly must stay two steps ahead – not only solicitous and anticipating, but suggesting (Steinmeyer 2003, p. 17).

Accountants have it easier. Financial statements are also “... a collection of tiny lies, in words and deeds, that are stacked and arranged ingeniously to form the battlement for an illusion.” But accountants do not face “... an audience that welcomes being deceived, then dares to be fooled, alternately questioning, prodding, and surrendering.” There is no battle, with the audience having surrendered without the forces ever having become engaged. According to the magician Donald Devant:

I regard a conjurer as a man who can hold the attention of his audience by telling them the most impossible fairy tales and by persuading them into believing that those stories are true by illustrating them with his hands, or with any object that may be suitable for the purpose (quoted in Steinmeyer 2003, p. 93).

Substitute the word “accountant” for “conjurer,” the word “certifications” for “hands,” and one is left with a possible perception of the accounting profession.

It is disingenuous to believe that accountants are not cognizant of their audience. According to Steinmeyer (2003, p. 117):

When magicians are good at their jobs, it is because they anticipate the way an audience thinks. They are able to suggest a series of clues that guide the audience to the deception. Great magicians don't leave the audience's thought patterns to chance; they depend on the audience's bringing something to the table – preconceptions or assumptions that can be naturally exploited.

This is equally true of accountants. The difference, though, is that magicians consciously exploit their audiences. With regard to “preconceptions or assumptions that can be naturally exploited”,

however, accountants and their audiences are in the same position, subconsciously complicit in mutual exploitation.

## | Magic and cognition

The conjuring effects most likely to have accounting analogs are: *appearance* (“An object appears where it was not”), *vanish* (“An object disappears from where it was”), and *transformation* (“An object changes form... Conceptually, this amounts to the vanish of one object and the appearance of another”) (Lamont and Wiseman 1999, p. 3–4). Consider the following methodological strategies (Lamont and Wiseman 1999, p. 11–12):

- 1) *Appearance*: a. Object was already there but was concealed, b. Object was secretly put in position, and c. Object is not actually there but appears to be;
- 2) *Vanish*: a. Object was not there but appeared to be there, b. Object was secretly removed, and c. Object is still there but is concealed; and
- 3) *Transformation*: Object A was secretly switched for B, b. Object B was already there but was disguised as A, and c. Object A is still there but is disguised as B.

To implement these strategies are the methodological devices of (Lamont and Wiseman 1999, p. 170–173):

- “*Concealment* of an object from view” (strategies 1a and 2c);
- “*Smuggling* of an object in secret” (strategies 1b and 2b);
- “*Simulation* of an object that is not there” (strategies 1c and 2a);
- “*Substitution* of an object for another” (strategy 3a); and
- “*Disguise* of an object as another” (strategies 3b and 3c).

Likewise, accountants, following the established accounting rules, structure the reality they set out to represent, that is, they choose what pieces become objects in their representations (*appearance*) and what pieces do not (*vanish*) and how these objects are defined and their boundaries drawn (*transformation*). It is not a stretch to assert that accountants *conceal* (fail to represent something that is), *simulate* (represent something which is not), *substitute* (represent something as something else is), and *disguise* (represent something as it is not). Only *smuggling* does not have an obvious analog.

Misdirection is the principle underlying most conjuring methods: physical misdirection directing the spectator's attention and psychological misdirection directing the spectator's suspicion. Physical misdirection of *where* and *when* the spectator is looking can occur only during a public performance, which magicians must do but accountants never do. Psychological misdirection by reducing suspicion through naturalness (consistency and necessity), justification (familiarization

and ruse), conviction (charisma, self-conviction, and reinforcement) and psychological misdirection by diverting suspicion through false solutions and through false expectations (Lamont and Wiseman 1999, p. 38) are essential for both magicians and accountants.

Neither magicians' events nor accountants' representations are natural, although it is in the interests of the magicians and the accountants that the events and representations appear as if they are. What is consistent with spectators' experiences and with which spectators can empathize and reckon to be *necessary* or at least *appropriate* will appear to be natural. What might not normally appear to be natural can be made consistent through familiarization or made to appear necessary through ruse. If the magician or accountant is charismatic, appears to possess self-conviction in the naturalness of the event (the magician) or actually possesses self-conviction in the naturalness of the representation (the accountant) and reinforces the naturalness, spectators are more likely to agree. Magicians are more likely to encounter suspicion than accountants because their spectators know that they are being tricked. Of course, dishonest accountants must also divert suspicion, but as honest accountants are tricking themselves along with their spectators, suspicion is not an issue.

Cognition occurs throughout the nervous system from the sense organs through to the brain. Although precise delineation is impossible, one might roughly classify the targets of trickery as either upstream sensory input and its processing or as downstream abstract information processing. In a broad sense, human evolution have led to the acquisition of capabilities for which the survival benefits of their acquisition has exceeded their survival costs (Barrett 2010). Each of the aforementioned parts of the nervous system is "faulty", at least by engineering standards, for slightly different reasons. Sensory input and its processing are faulty more for reasons of economy; what one is capable of was good enough to be reproductively competitive in the hostile environments within which the human nervous system evolved and is generally *more than* good enough to reproduce in the very different and relatively benign environments that most humans now inhabit. The sharp eyesight needed to hunt large mammals on the veldt is no longer an especially valuable quality in modern males, except for those rare males using it to capture long passes on the football field and impress female spectators. Abstract information processing is faulty because demands on cognition have changed. Sophisticated quantitative risk assessment skills did not evolve because they would not have mattered for reproductive success on the African savannah. However, those who have those skills nowadays might transform investment success into reproductive success in urban jungles.

Magic clearly exploits faulty sensory input and sensory input processing. Behavioral finance and accounting are concerned with logically faulty abstract information processing, which is clearly exploited by the gaming industry<sup>6</sup> and perhaps in more subtle ways elsewhere within

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<sup>6</sup> For example, roulette tables often feature displays of past winning colors and numbers to take advantage of the innate belief that what has or has not happened in the past determines what will or will not happen in the future.



financial markets. It is likely that accounting exploits both, but this study is specifically concerned with the overlaps with magic. It is not a perfect overlap. Magic is always performed by a magician in front of an audience in real time, which permits magicians to take advantage of cognitive processes in ways not open to accountants, whose contact with spectators is via time-delayed documentation. While magicians are able to trick other magicians, they are unable to trick themselves, which accountants are able to do. The specific cognitive processes that both magicians and accountants enlist in their trickery are good continuation, habituation, attentional capture and even hormonal stimulation. In short, “good continuation” is the process by which complete mental representations are produced from partial information; “habituation” is induced complacency; “attentional capture” is the exogenous (passive) or endogenous (active) direction of conscious attention; and the stimulated hormone is oxytocin, which engenders a feeling of trust (Macknik and Martinez-Conde 2010).

A few examples illustrate how these cognitive processes are exploited by magicians. If a head protrudes from one end of a box and feet from another, spectators assume the continuity of a body between the two. If two spoons with bent shafts are held in a special way with the bends concealed, spectators assume spoons having straight continuous shafts that cross each other. A magician can therefore saw an assistant in half who was never just a single assistant and bend two spoons that were never straight. Habituation contributes to the same tricks; that is, people are habituated through everyday experience to boxes with interiors without partitions and spoons with straight shafts. Habituation forms a powerful barrier to seeing a box that consists of two separable pieces and spoons with bent shafts. Inattentional blindness is ubiquitous in stage magic; audiences are compelled to attend to the dramatic motion of one hand while the other hand performs a stealthy maneuver (placing a coin in a pocket, for example) in full view but completely ignored (Macknik and Martinez-Conde 2010). In effect, inattentional blindness is a consequence of humans’ inability to multitask, despite their illusion that they can do so: concentration on one thing necessarily precludes concentration on any others. The most notorious example of inattentional blindness is the common failure to see a person in a gorilla suit in a video when the viewers have been distracted by the task of counting how many times other characters in the video have passed a basketball (Simons and Chabris 1999). The tuxedo has become the traditional uniform of stage magicians to exploit audiences’ inclination to trust those so attired. The question, then, is how accounting engages these same cognitive processes in its own effects.

## | Magic and accounting

There are a number of very familiar accounting phenomena that engage these same cognitive processes, although it is not so obvious that this is what they are doing. Many persons believe that financial statements present the “truth”, and many other persons more knowledgeable regarding accounting might more specifically believe that the financial statements present the

“truth” in accordance with the U.S. generally accepted accounting principles (GAAP) and as verified by professional auditors. In effect, this is a consequence of good continuation; the societal and cultural role of accounting is such that the descriptor “truthful” is just read onto it.

This occurs despite U.S. accounting standards setters’ assertion in the Statement of Financial Accounting Concepts No. 8 (FASB 2010, p. 1) that “the objective of general purpose financial reporting is to provide financial information about the reporting entity that is *useful* (emphasis added) to existing and potential investors, lenders, and other creditors in making decisions about providing resources to the entity.” Further, the Financial Accounting Standards Board (FASB) states: “... if financial information is to be useful, it must be relevant and faithfully represent what it purports to represent. The usefulness of financial information is enhanced if it is comparable, verifiable, timely, and understandable” (FASB 2010, p. 16).

Nowhere do the standard setters mention “truth,” although the term “faithfully represent” comes close enough to “truth” for most people. According to Bayou et al. (2011, p. 112), “... for standard setters the overriding criterion of decision usefulness, which FASB and IASB [International Accounting Standards Board] narrowly define as helping to predict cash flows, has replaced veracity in financial reporting as an end in itself”. However, it is historically interesting to note that on 12 March 1903, U.S. Steel published their consolidated financial statements for the period ended 31 December 1902, along with the Price Waterhouse & Company’s assurance that the financial statements were “audited and found correct” (Carey 1969, p. 29). So while it was once true that “truth” was the objective of financial reporting in a simpler era of physical assets and straightforward production of goods, good continuation is responsible for the prevailing expectation today that financial statements are correct in a far more complex time of intangible intellectual property and the provision of abstract services.

A notorious lacuna in financial statements is that the auditor certification says nothing about fraud; yet in the eyes of most people, the purpose of an audit is to detect fraud. Although that is indeed one of the purposes of an *internal* audit performed by corporate accountants, following their *external* audit, public accountants state simply that “In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of ... in conformity with U.S. generally accepted accounting principles.” Under the influence of good continuation, readers gloss over the common disclaimer “Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements,” instead filling in the opposite to the effect that no one is engaged in any deceptive practices.

GAAP clearly states what is included in the financial statements and by implication (and *only* by implication) what is thereby excluded from the financial statements. That the balance sheet balances, however, send a strong signal to readers of the financial statements that *nothing* is excluded, despite wildly different book values and market values that are clearly an indication that something is not in balance. How could something *balance* mathematically if something

were missing? But much *is* missing: commitments; contracts such as agreements to purchase or sell something in the future, employment contracts for key employees, and union contracts; certain contingencies; plans such as those to purchase a business, sell a business, or expand a business; the effects of inflation etc. – the list goes on and on. What of all of the non-economic consequences of corporate activity that have profound effects on every stakeholder but that are excluded from the financial statements because there is no contract or transaction documenting their existence? Owing to good continuation, one can see in disclosures what isn't there because one expects it to be there; on the balance sheet, one doesn't see what isn't there because one doesn't expect anything not to be there.

Perhaps the most significant distortions in interpretations of financial statements are the consequences of habituation. In their daily lives, people become habituated to words having certain meanings and connotations, and in their personal affairs, people become habituated to financial matters obeying certain rules. More specifically, they become accustomed to a precision in personal finances that is not there, by necessity or by design, in corporate finances. Consider “inventory”, the mental image that something is out there somewhere for which some price was paid, and presumably from which at least the same value could be realized in a market if necessary. The reality is that after inventory valuation methods, manufacturing cost allocation methods and policies for culling inventory of obsolete or unsalable items are taken into account, there is only a tenuous connection between the inventory value that appears on the balance sheet and the realizable value if the inventory were disposed of on the market, despite the reported valuation being fully in accordance with GAAP. Consequently, there is only a tenuous connection between the concept “inventory” in minds and the “inventory” that aggregates as an amount reported on the balance sheet.

“Expenses” are something that have also become even more differentially habituated. People spend their own money on things that they might have around for a few seconds (a shot of espresso), pass down through their descendants for a few hundred years (a diamond ring), or enjoy for any length of time in between. It matters only that they exchanged cash for them, and this is what “expense” means to them. Corporations don't just spend money; they exchange it for something that is worth keeping track of (assets) or not (expenses). Assets will last less than a year (current assets) or more than a year (long-term assets). Some assets can be broken down into nuanced categories that are often difficult to differentiate (cash and cash equivalents, marketable securities, or investments). Expenses will either be recurring in core activities (operating expenses), recurring in ancillary activities (non-operating expenses) or non-recurring (extraordinary expenses). There are ways by which assets are transformed into expenses (inventory becomes cost of goods sold expense; furniture, fixtures, and equipment become depreciation expense) without any money changing hands. There are even expenses that might more properly be considered assets (research and development expenditures or internally generated intangible assets such as patents) that GAAP requires be recorded immediately as an expense, although few could argue that these expenditures do not have future value for the company. Yet again, all of

these records can be prepared fully in accordance with GAAP while resulting in a variable something called “total expenses” for a corporation that is nothing like what people are personally familiar with. Unlike physical laws, which are everywhere constant, use of IASB GAAP versus FASB GAAP can create wholly different universes. For example, a world in which research and development costs are expensed (as under FASB) can look very different than one in which certain research and development costs can be capitalized as assets (as under IASB).

“Income” is likely the most misunderstood word. Personal “income” corresponds most closely with corporate “revenue”: money received in exchange for a person or corporation having provided something in return. Corporate “operating income” has no personal finance analog. There isn’t all that much uncertainty regarding the amount of personal income, and given a known tax rate, not all that much uncertainty regarding personal taxation. GAAP permits corporate operating income to vary over an astonishing range, depending on numerous choices corporations are permitted to make, to the point that official tax rates are largely meaningless from a public policy standpoint. Despite that, taxation debates proceed as if corporate operating income and tax rates meant the same things to which people have become habituated as individuals. More subtly, it is not incorrect to say that individuals have *an* income. Consistent with the familiar image of “income”, with enough careful records keeping, individuals can come up with exactly how much money they have been given over a period of time by someone for something. Through habituation of the concept of income, one can therefore infer that with enough careful records keeping and sufficiently comprehensive rules, corporations can come up with an exact income. Although it might be practically impossible to discover a corporation’s “true” income, in theory there is one, and with enough effort one can be more accurate and come closer to determining it. However plausible it feels, more devoted adherence to GAAP (whatever that might mean given GAAP’s flexibility) does not necessarily mean a more accurate and more “truthful” measure of income.

“Information”, such as it is given the preceding discussion, captures immediate attention in precisely aligned and structured financial statements. Information in footnotes to financial statements captures less attention. Information in management discussion and analysis (MDA) sections captures even less attention. Not surprisingly, extensive academic empirical research exists suggesting that the format in which information is presented (for example, disclosure in the footnotes versus recognition in the financial statements themselves) affects the extent to which the information affects users’ judgments. These empirical studies indicate that information disclosed outside of the financial statements is considered less useful than information included in the financial statements (Liang and Zhang, 2006; Maines and McDaniel, 2000; Nelson and Tayler, 2007 among many). Additionally, information associated with captions or terms with which readers are familiar, or at least believe themselves to be familiar (i.e. “accounts payable,” “last-in-first-out inventory valuation”) captures more attention than information in less easily comprehended categories (i.e. “other payables”, “special purpose entities”). The presentation of financial information in compliance with GAAP very clearly directs one’s gaze in specific directions and perhaps away from other areas.

Finally, the stereotypical attire and accessories of an accountant (conservative business dress, briefcase, and the ubiquitous laptop) can serve the same purpose as the tuxedo worn by stage musicians. Both uniforms are intended to build trust. Audit firms hold week-long annual training sessions, not only to update the staff's technical knowledge, but also to reinforce the culture of the firm and what it means to be an accountant and an auditor and to mold a trustworthy employee. Professional certifications such as a Certified Public Accountant (CPA), Chartered Accountant (CA), or Certified Management Accountant (CMA) along with Continuing Professional Education (CPE) hours are all letters and designations that signal to the public that the person possessing them knows the "truth" and can be trusted to tell it in the financial statements. Many studies have examined the connection between professional appearance and demeanor and the perceptions of clients and other observers (Anderson-Gough et al. 2000, 2001, 2002; Carrington, 2010; Covalleski et al., 1998). Accounting journals directed towards practitioners have long offered advice regarding professionalism and success in the workplace (Hindin-Miller, 2009; Pachter, 2010).

## | Conclusions: magic and expertise

The likely reaction to these examples is that "outsiders" are susceptible to cognitive biases such as good continuation, habituation, attentional capture, and in their assessment of financial information, but "experts" in accounting are not. "Experts" know what is and is not presented in the financial information and do not just fill in the blanks or filter out the blanks. They have been habituated by their professional practice and not by their personal experience, and they know what the captions and their values on financial statements really mean. "Experts" are not distracted by where information is presented but seek out information wherever it might be found. They are not deceived by the meaning, or lack thereof, of educational credentials or professional appearance and accessorization (Shanteau 1992; Shanteau et al. 2002).

Perhaps "experts" are indeed so immune from the cognitive quirks to which others are susceptible, but perhaps they are not. There is extensive academic research examining data and behaviors that indicate that management (and accountants) engage in some level of deceptive practices in their financial reporting, often called earnings management, to meet earnings targets or market expectations and to achieve professional and/or personal gain (Dechow et al. 1995; Jones 1991; Matsumoto 2002; among many). These practices are not always insignificant or subtle, yet they often pass unremarked by expert analysts. Following this idea to an extreme, one has to ask, for example, how the corporate scandals of the early twenty-first century such as Enron and Worldcom and the Ponzi schemes of Bernard Madoff and Allen Stanford could have flourished for as long as they did under the scrutiny of an army of so-called "experts." At least equally fascinating is how, in retrospect, such deceptions and frauds all appear to have been so obvious. Even in the absence of deceptive actions, "experts" admit that GAAP allows managers a wide range of discretion in the choice of accounting methods and moving towards a more principles-based regime will likely add more discretionary latitude to accountants.

Everyone has cognitive processes that can be intentionally or unintentionally hacked. Even professional magicians can be mystified by other magicians. On stage, there are often numerous ways to create an effect. Magicians looking for one effect can fail to see another. Likewise, try as they might to be alert to fraud and error, “experts” have limited cognitive capacity, and they can certainly be more easily fooled than professional magicians because for the most part they are not expecting to be fooled, at least not massively so. Seeking out one blank in a financial report, their good continuation can be filling in another. Deeply investigating one caption in a financial statement, they can read a familiar interpretation into another. Diligently deciphering an explanation in the MDA, a problematic footnote can escape their attention. While they are aware of trust-building strategies and practice them themselves, “experts” are still human and susceptible to the same social cues as their distant ancestors in southern Africa, the Paleolithic equivalents of briefcases and laptops.

Lately, magic has been given increasing attention by psychologists for what it can reveal about how the human cognitive system works. Further research regarding such interactions between accounting and cognition has potential for enhancing the understanding of both. Certainly at this particular point in accounting history, as standard setters seem to be moving ever closer to implementing some version of a principles-based accounting regime versus the current rules-based accounting regime, it is worthwhile to contemplate the conscious and subconscious effects of cognitive processes on how individuals perceive financial information.

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