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ACCA supports its **188,000** members and **480,000** students in **178** countries, helping them to develop successful careers in accounting and business, with the skills required by employers. ACCA works through a network of **100** offices and centres and more than **7,110** Approved Employers worldwide, who provide high standards of employee learning and development. Through its public interest remit, ACCA promotes appropriate regulation of accounting and conducts relevant research to ensure accountancy continues to grow in reputation and influence.

Founded in 1904, ACCA has consistently held unique core values: opportunity, diversity, innovation, integrity and accountability. It believes that accountants bring value to economies in all stages of development and seek to develop capacity in the profession and encourage the adoption of global standards. ACCA's core values are aligned to the needs of employers in all sectors and it ensures that, through its range of qualifications, it prepares accountants for business. ACCA seeks to open up the profession to people of all backgrounds and remove artificial barriers, innovating its qualifications and delivery to meet the diverse needs of trainee professionals and their employers.

In June 2016 ACCA formed a strategic alliance with Chartered Accountants Australia and New Zealand (CA ANZ). The alliance represents the voice of 788,000 members and future professional accountants around the world, who share the commitment to uphold the highest ethical, professional and technical standards.

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This report explores the importance of cognitive biases – for example, hindsight and groupthink – to the audit process. It explains how cognitive biases are central to improving the exercise of professional scepticism and to understanding the fundamental ethical principle of objectivity.

#### **ACKNOWLEDGEMENTS**

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## Contents

Executive summary	4
Introduction and background	5
History of professional scepticism	6
Lessons from psychology	8
Cognitive biases and audit	9
How the main cognitive biases affect the financial reporting process	12
The benefits of considering cognitive biases	14
Rationale for an informed approach to standard setting	15
Possible concerns about this approach	16
How standard-setters and others can respond	17
So now what?	18
Appendix: Professional scepticism in auditing standards	19
Poforances	21

## **Executive summary**

Professional scepticism has received a lot of attention, from policymakers, regulators, politicians and the public. Professional scepticism has received a lot of attention, from policymakers, regulators, politicians and the public. After nearly a decade of action, audit quality has undoubtedly improved. Yet, calls for more professional scepticism have not abated. This report seeks to understand why, and what should be done about it.

Drawing on the established and respected psychology literature on cognitive biases, pioneered by Amos Tversky and Daniel Kahneman, this report argues that a new approach to professional scepticism is needed if expectations of further increases in audit quality are to be met. There are two main reasons for this. Firstly, existing auditing standards are susceptible to cognitive biases by auditors. Auditors need to plan and execute their audits differently in order to mitigate the effects of these unconscious biases. Additionally, in some areas, the auditing standards themselves may need to change. This report makes recommendations for auditors and for standard setters.

Secondly, other stakeholders in the financial reporting supply chain also need to be aware of their own cognitive biases. While the recommendations for auditors and standard setters are important, the actions of others, including preparers, audit regulators, audit committee members, investors and the general public are just as important. In some cases, these stakeholders' perceptions of a lack of audit quality may be affected by cognitive biases. In such cases, interventions that require auditors to change their behaviour may not serve to increase audit quality. Indeed, to the extent that auditors are required to undertake procedures that do not add value, they may even reduce audit quality. This report recommends a global commitment to audit quality.

In addition, an approach to standardsetting that considers cognitive biases should help bring clarity to the meaning of objectivity within auditing standards.

ACCA, the global body for professional accountants, is pleased to contribute to this important public policy debate.

## Introduction and background

For some time, regulators have referred to a lack of professional scepticism among auditors as a major issue in audit quality.

Professional scepticism is defined within international auditing standards as:

'An attitude that includes a questioning mind, being alert to conditions that may indicate a possible misstatement due to error or fraud, and a critical assessment of evidence'.

International Auditing and Assurance Standards Board 2015: 32

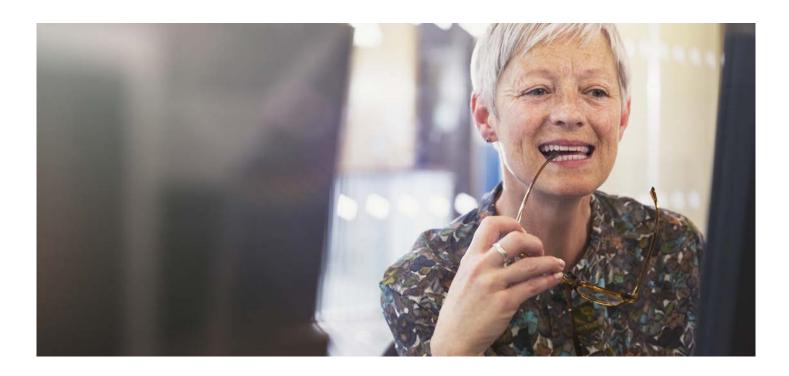
Demonstrating the proper application of professional scepticism requires consideration of the IESBA Code of Ethics fundamental principles of professional competence and due care, integrity, professional behaviour and, in particular, objectivity.

For some time, regulators have referred to a lack of professional scepticism among auditors as a major issue in audit quality. Regulators argue that, were auditors to be more sceptical, more misstatements in financial statements would be uncovered through the audit process. Despite increased awareness among auditors of the importance of professional scepticism in ensuring audit quality, regulators continue to refer to a lack of professional scepticism in their oversight reports. In addition, preparers of financial statements claim that the audit process is rigorous and comprehensive. On the face of it, this is inconsistent with the notion that auditors are insufficiently sceptical.

ACCA believes that, because professional scepticism is defined in terms of a state of mind, further improvements in professional scepticism must be informed by an understanding of psychology. In particular, the literature on cognitive biases is particularly helpful in understanding how all stakeholders in the financial reporting process – auditors, preparers, investors, regulators, standard setters and the public – use information, in practice, to make decisions. ACCA believes that greater clarity is needed in this area in order to drive improvements in audit quality.

There are two main benefits. Firstly, a standard-setting process that is informed by the literature on cognitive biases can lead to standards that either mitigate the impact of innate biases or at least avoid effects that may be detrimental to audit quality. Secondly, it may help in identifying areas where stakeholders other than auditors might be susceptible to innate cognitive biases. With a shared understanding of the importance of audit quality and with appropriate global leadership, all stakeholders can work together to improve audit quality.

While professional scepticism is a vital part of the audit process, overemphasising it in cases where the root cause of problems lies elsewhere could lead auditors to focus on procedures that do not contribute to audit quality. In this report, ACCA seeks to draw out the reasons why the demonstration of professional scepticism continues to be identified as a challenging area for auditors, and to show how policymakers might respond.



## History of professional scepticism

Professional scepticism has moved to the forefront of concerns about audit quality. Professional scepticism has moved to the forefront of concerns about audit quality. In the wake of the global financial crisis of 2007–8, audit oversight bodies have referred to a lack of professional scepticism as being at the root of lapses in audit quality and, accordingly, have urged auditors and standard setters to do more to enhance professional scepticism. Some of these findings are set out below.

#### **MALAYSIA**

The AOB [Audit Oversight Board] observed that Major Audit Firms were in the process of undertaking initiatives to reinforce the importance of exercising professional scepticism in the conduct of their audit work. This included guided training and structured communications on professional scepticism. Although we believe that more initiatives should be put in place across the audit industry, the application of professional scepticism varies, depending on the level required when auditing a particular audit engagement. We will continue to give particular attention to the application of professional scepticism in 2012 inspection[s]. (Malaysia Audit Oversight Board 2012, Part 4: 8).

#### **AUSTRALIA**

Our reviews of audit files showed, in our view, [that] insufficient professional scepticism was applied, particularly in relation to fair value measurement, impairment testing, and going concern assessments. Exercising professional scepticism is a critical part of conducting quality audits. Professional scepticism means the auditor makes a critical assessment, with a questioning mind, of the validity of the audit evidence

obtained and management's judgements on accounting estimates and treatments.

In particular, we found examples where auditors appeared to have:

- (a) been over-reliant on, or readily accepted, the explanations and representations of the management of audited entities without challenging matters such as key underlying assumptions; or
- (b) sought out evidence to corroborate estimates or treatments rather than appropriately challenging them (Australian Securities and Investments Commission 2014: paras 50-51).

#### **NEW ZEALAND**

Professional scepticism continues to be an area of concern in a large number of FMC audits [an audit of an entity designated as public interest by the Financial Market Conduct Act], particularly where significant judgment is required by both the preparer of financial statements and the auditor.

Professional scepticism is affected by certain conditions and pressures that arise or change during an audit.

Judgments made during the planning and performance of the audit, such as the level of skill and expertise needed, as well as audit evidence and audit work to be conducted, are likely to change during an audit. It is therefore important that each member of the audit team applies the right level of professional scepticism (New Zealand Financial Markets Authority 2015: 7).

The sceptical state of mind feeds into judgements, which drive actions that the auditor then documents.

A particular challenge for auditors is the framing of the issue. As professional scepticism is a state of mind, it cannot be directly observed. The sceptical state of mind feeds into judgements, which drive actions that the auditor then documents. While audit oversight bodies can - and do - interview members of the engagement team, they give much more weight to documented evidence. This is on the grounds that ISA 230, Audit Documentation, paragraph 8c, requires the auditor to document significant matters arising during the audit, what conclusions were reached on those matters and the significant professional judgements made in reaching those conclusions. The application material to ISA 230, in paragraph A5, clarifies that 'Oral explanations by the auditor, on their own, do not represent adequate support for the work the auditor performed or conclusions the auditor reached, but may

be used to explain or clarify information contained in the audit documentation'. One audit oversight body itself declares that it applies professional scepticism to auditor assertions that undocumented audit work was performed (Australian Securities and Investments Commission 2014: 11, Table 1). This highlights the challenges for auditors in documenting how they exercised professional scepticism during their audit.

In addition, typically the audit oversight body intervenes in situations where it considers professional scepticism to be lacking and remains silent in situations where it is excessive (Nelson 2009: 3–4). Therefore oversight body reports on inspection findings only ever highlight weaknesses when referring to the application of professional scepticism. Over time, this feeds into a public narrative that auditors need to be more sceptical.



## Lessons from psychology

Professional scepticism is rooted in the fundamental principle of objectivity, as described in the Code of Ethics issued by the International Ethics Standards Board for Accountants (IESBA). Professional scepticism is rooted in the fundamental principle of objectivity, as described in the Code of Ethics issued by the International Ethics Standards Board for Accountants (IESBA). Objectivity 'imposes an obligation on all professional accountants not to compromise their professional or business judgment because of bias, conflict of interest or the undue influence of others'. ACCA believes that, as scepticism is defined in auditing standards as a 'state of mind', it is necessary to look to the psychology literature for some of the answers.

Of most relevance in this literature is the concept of cognitive biases. Cognitive biases account for aspects of apparently non-rational ways in which people reach decisions.

Cognitive biases can affect the auditor at various stages of the audit. They can also influence other stakeholders in ways that can both reduce audit quality and affect perceptions of audit quality. This is explained further on pages 12–13.

In responding to cognitive biases, standard setters can take some practical actions to reduce the impact of known biases, for example by designing standards in ways that mitigate the effects on decision-making. Alternatively, standard setters can recognise the effect on decision-making, for example by reaching consensus among stakeholders that some decisions that appear not to be rational may be due to cognitive bias rather than purely a lack of professional scepticism.

In addition to cognitive biases, it is important to recognise three other structural constraints on the audit process. These constraints are partly why an audit gives reasonable, not absolute, assurance.

- 1. There is **information asymmetry** between the client and the auditor. The client has much better knowledge about its business than the auditor does.
- 2. The auditor has **limited time** in which to form a view, and few mechanisms, in practice, to get more time.
- 3. The auditor has **limited resources** with which to form a view, and there are practical constraints on his or her ability to get more resources.

Without these structural constraints, the auditor could more accurately identify the risks of material misstatement, devote more resources to testing them, and spend as much time as was needed in forming a reasonable assurance opinion.

In practice, the auditor uses the available time and dedicated resources to test the perceived risks of material misstatement. In respect of issues requiring a high degree of judgement, the auditor must balance investigating further, thereby risking receiving criticism for delaying the financial reporting process over a matter that, given the information asymmetry, will probably turn out to be nothing; against accepting the evidence provided, which may in hindsight turn out to be insufficient should the matter crystallise. The auditor uses professional judgement to ensure that these issues are resolved appropriately in accordance with ISAs. This is an example of what Erik Hollnagel describes as the efficiencythoroughness trade-off (Hollnagel 2016).

## Cognitive biases and audit

Human decision-making is affected by a number of cognitive biases, which have developed because they were evolutionarily beneficial.

The literature on cognitive biases is rooted in the work of Tversky and Kahneman (Tversky and Kahneman 1975). They sought to explain why some human judgements appear to be irrational or suboptimal. Their explanation, which has been added to considerably by subsequent studies, is that human decision-making is affected by a number of cognitive biases, which have developed because they were evolutionarily beneficial.

Some cognitive biases serve as shortcuts to decision-making, allowing a quick but not highly accurate decision rather than a more accurate but slower one. Some allow an individual to come to a decision in conditions of uncertainty, and some support social interaction.

These cognitive biases mirror the constraints over the audit process. Shortcuts to decision-making are helpful when time is short. Making decisions using uncertain information is necessary when the auditor does not have complete information or when financial reporting assertions rely upon forward-looking information. Also, without going so far as to compromise the auditor's independence, a resource-constrained audit relies upon good social interaction with the client to make acquiring information more efficient. As a result, in the absence of any other factors, the audit process would be expected to be particularly susceptible to cognitive biases. The 12 cognitive biases that are most relevant to the audit process are:

- hindsight bias
- outcome bias
- confirmation bias
- · anchoring bias
- availability heuristic
- groupthink
- overconfidence
- recency
- conjunction bias
- selective perception
- stereotyping
- blind-spot bias.

A table that explains more about each of these biases and how they might affect the audit process is on pages 12–13. Some firms have already incorporated strategies to mitigate some of these biases into their global methodologies.

The challenge is that cognitive biases are a direct result of being human. While some cognitive biases can be mitigated by designing systems that reduce their impact, some cannot. In addition, an audit that completely eliminated cognitive biases, if it were possible, might be prohibitively time-consuming, costly and invasive. This calls for a collective responsibility, shared among all stakeholders, for the quality of the system as a whole. This is particularly challenging as it is difficult to make wider stakeholders agree to recognise the role of bias in their own decision-making.



Neutrality, a fundamental attribute of useful financial information, is described as meaning 'free from bias'.

#### THE CONCEPT OF BIAS IN INTERNATIONAL STANDARDS

Several of the international standards on auditing refer to bias but use the term differently from the way it is used in the psychology literature.

'Management bias' is defined in the glossary of terms in the *Handbook* of the International Auditing and Assurance Standards Board (IAASB) as:

'A lack of neutrality by management in the preparation of information'.

IAASB 2015: 26

Neutrality, a fundamental attribute of useful financial information, is described as meaning 'free from bias'. ISAs then require the auditor to be alert to indicators of management bias and to take mitigating action where it is identified. Eliminating bias is seen as something that is not only desirable but also possible.

More recently, there has been discussion of auditor bias with reference to cognitive biases. As auditors are required by ethical standards to be independent, conscious bias would be incompatible with the role of a professional accountant serving as an auditor. The analysis of responses to the IAASB's December 2015 consultation 'Invitation to Comment, Enhancing Audit Quality in the Public Interest' ('the ITC') identifies the risk that auditors may be subconsciously biased (IAASB 2016: para 10). It recommends that auditors seek to mitigate this subconscious bias by being more aware that it exists. Research into cognitive biases has found that awareness and training may help to mitigate bias, but may not be completely effective (Morewedge et al. 2015).

Nonetheless, there is some value in increasing awareness of cognitive biases so that systems and processes can be designed to be more resilient to them. ACCA argues that everyone needs to be aware of cognitive biases.

- Auditors, when designing and performing audit procedures, need to be aware of the extent to which they may be subject to subconscious biases. To the fullest extent possible, they should try to mitigate them, both at the design stage and during review of audit findings.
- Standard setters, when they write standards, must try to ensure that those standards do not create systems that are susceptible to bias.
- Preparers should aim to prepare reports that are transparent. They should also ensure that their auditors are supported in exercising professional scepticism and are given the space to undertake their work independently.
- Audit committees should question and challenge auditors throughout the audit process to identify areas where cognitive bias may have existed and ask their auditors what their processes are for minimising the impact of cognitive biases on the audit process.
- Regulators should focus on improvements that support greater audit quality rather than reacting to biases and should work collaboratively with other audit quality stakeholders to minimise the risk of auditor bias.
- Investors should think about how they can minimise the impact of bias on the auditor selection process.
- The public should aim to encourage a new dialogue about audit quality that is rooted in a shared commitment to quality.

#### THE ISSUES FOR SMES AND SMPS ARE SIMILAR BUT DIFFERENT

While this report is based primarily on issues raised for listed company audits, it also has relevance to unlisted company audits and audits conducted by small and medium-sized practitioners (SMPs).

Nonetheless, the specific issues for SMPs, while similar to those encountered by larger firms, differ in some important aspects.

Professional scepticism is not an explicit part of the CIIA's standards, but its value is recognised for ensuring the necessary objectivity required of an internal auditor.

In the audit of an owner-managed business, the auditor-client relationship is different in nature to that in the audit of a listed company. Typically, an owner-managed business has less expertise in financial reporting and therefore may be more likely to look to the auditor's experience and judgement in key matters. Without jeopardising the auditor's independence, the auditor may be seen as contributing a valued service to the client.

Yet this closer relationship may have a price. Where the auditor disagrees with the client on an issue, there is a higher emotional cost in pursuing the subject of the disagreement. Given the time and resource limitations of an audit, this may make it more emotionally costly than usual to be professionally sceptical, with potential impacts on judgement. Further research may help to give better understanding of these issues.

### DATA ANALYTICS MAY PROVIDE AN ANSWER

Audit firms have invested heavily in data analytics in order to capitalise on new technology and improve audit quality.

The use of sophisticated computer algorithms to analyse large amounts of data could reduce cognitive biases in the audit process. For example, rather than deciding which transactions to test and taking the risk that the selection process is affected by bias, the auditor could use data analytics to query 100% of transactions. Data analytics also promises to reveal patterns in a company's data that will make it easier for the auditor to identify and follow up unusual items, as well as providing stronger audit evidence.

Even so, it is important that the prospects of data analytics for enhancing professional scepticism are not overstated. The view that data analytics allows 100% testing does not excuse the auditor from exercising professional scepticism as to whether the client's dataset is complete. An ability to interrogate completely a company's transactions may not assist the auditor in determining whether conditions for recognising revenue have been met, asset values are supported by future cash flows or accounting estimates are fairly stated.

In addition, the involvement of computers does not guarantee a lack of bias. Indeed, it may codify bias. For example, the algorithms used may themselves introduce bias inadvertently owing to the way they were coded, or there may be cognitive biases in the ways in which data is acquired, cleaned and queried, or reports interpreted. Particular care is needed to ensure that data analytics does not overemphasise available evidence over representative evidence (the availability heuristic). And the way in which engagement partners handle situations where data analytics produces results that conflict with their own intuition or with other audit evidence will require significant professional judgement. More research is needed to help inform this important debate.

#### **APPLICATION TO INTERNAL AUDIT**

Internal auditors typically follow standards issued by the Chartered Institute of Internal Auditors (CIIA) rather than ISAs.

Nonetheless, many of the considerations in this report are also relevant to internal audit, owing to the obvious parallels between the external assurance an auditor provides to shareholders and the assurance that an internal auditor provides to those charged with governance.

Professional scepticism is not an explicit part of the CIIA's standards, but its value is recognised for ensuring the necessary objectivity required of an internal auditor. As with external audit, internal auditors face constraints on their resources, time and information, although they may face fewer information constraints than is the case for external auditors. Therefore, internal auditors must make similar professional judgements as to where to focus their activities so as to provide maximum value for the organisation. As a result, internal auditors should be aware of their susceptibility to cognitive biases when planning and performing their work, with a view to mitigating the effects of these biases.

Feedback from practitioners will be helpful in understanding the extent to which internal auditors can use knowledge of cognitive biases to improve the quality of the service they provide to their companies.

# How the main cognitive biases affect the financial reporting process

Table 1 summarises the main cognitive biases that are considered relevant to the audit process and how they might affect the judgements made by auditors and other stakeholders.

**Table 1:** The nature and effects of cognitive biases in the audit process

COGNITIVE BIAS	NATURE	EFFECTS
Hindsight bias	Once people know that something has happened, they overestimate how easy it should have been to predict it.	Academic research finds that hindsight bias could affect the regulatory process (Anderson et al. 1993). Regulators, with the advantage of knowledge about misstatements, may take the view that misstatements should have been identified by the auditor. Therefore, the auditor's failure to identify them is portrayed as a lack of professional scepticism.
Outcome bias	People judge the value of an action or intervention on the basis of its outcome rather than on whether it appeared reasonable at the time.  While similar to hindsight bias, outcome bias is distinct from it.	In reviewing the work of more junior staff, audit managers may judge the work on whether it identified a misstatement. This can mean that interventions that do not identify misstatements are criticised. The anticipation of outcome bias may discourage junior staff from questioning client evidence, in case they are criticised for it, even though it would be professionally sceptical to seek further corroboration (Brazel et al. 2016).  This can be further compounded at the firm level, where the engagement team may be challenged by the firm's leadership over audit efficiency in cases where audit testing has not led to the identification of misstatements.  Audit regulators may assess audit quality on the basis of the outcome of a matter, rather than assessing objectively whether the audit judgements were reasonable.
Confirmation bias	Confirmation bias is the phenomenon whereby people tend to value evidence that corroborates their existing beliefs more highly than evidence that contradicts them.	Professional scepticism should serve to ensure that the right strategies are selected to reduce confirmation bias. Even so, where the auditor believes there is no misstatement, he or she may prioritise evidence that confirms this belief over evidence that contradicts it. For example, research finds that auditors may over-rely upon weak evidence from analytical review procedures when the results corroborate the balance being tested (Glover et al. 2005). Preparers may prefer evidence that supports their point of view to alternative evidence, such as presented to them by their auditor. This may make it more difficult for auditors to convince preparers to correct material misstatements.
Anchoring bias	People tend to use an initial piece of information as an 'anchor' against which subsequent information is judged.	Audit theory is predicated on a neutral assessment of audit evidence. If the auditor is 'anchored' to evidence that corroborates management's assertion, he or she may downplay the significance of other information that contradicts management (Kinney and Uecker 1982). Where the auditor has audited the entity in previous years, the auditor may be 'anchored' to prior year balances. Anchoring bias would tend to undermine the effective application of professional scepticism.  As with confirmation bias, preparers may become anchored to their own evidence and prefer it to subsequent evidence provided by their auditor, making it more difficult for auditors to convince preparers to correct material misstatements.
Availability heuristic	People overestimate the importance of information that is available to them.	The auditor is required to consider the sufficiency of information. The application of professional scepticism means that auditors should reflect on whether they should seek additional information that might corroborate or contradict management's assertions. This could be undermined in situations where the available information supports management's assertions but there may be other, as yet unobtained, evidence that does not. Tests that use data analytics may need to be designed carefully to ensure they are not biased by this heuristic.  The availability heuristic may also affect regulators, who may presume that the evidence that
		is available to them in their case files is representative when it is not.
Groupthink	Groups tend to coalesce around an idea rather than challenging and questioning it. This has been attributed to the innate desire for unity and conformity in social situations. Groupthink can be exacerbated in groups where the leader reveals his/her preferences.	Groupthink has the potential to undermine the value of a diverse audit team, if it means that minority viewpoints are overlooked in favour of the group view or that the group as a whole assesses risk tolerance more aggressively than would any member of the group (Glover and Prawitt 2014). The observation that groupthink may affect audit decision-making when considering fraud in a financial statement audit in accordance with PCAOB standard AU 316 has been documented in the literature (Brazel et al. 2010).  Other groupthink effects may exist among other participants, such as preparers and regulators, and may also affect management's experts and auditor's experts.

COGNITIVE BIAS	NATURE	EFFECTS
Overconfidence	People tend to believe their abilities and judgements are better than they are.	Overconfident judgements may undermine the proper exercise of professional scepticism at all stages of the audit.  Similarly, overconfident preparers may resist audit adjustments on the grounds that they value their own judgement more highly than their auditor's.
Recency	People overemphasise the importance of more recent information.	Recency bias may impair the auditor's ability to derive trends from data, as evidence from the most recent accounting period may be seen as more relevant than evidence from trends over several years. This could lead to inaccurate decisions about which management assertions to challenge.
Conjunction bias	People tend to think of specific circumstances as being more probable than general ones. For example, in some situations, people value insurance for a specific type of risk, eg the risk to aircraft from terrorism, much more highly than insurance over a wide range of risks, including the specific risks in question (Eisner and Strotz 1961).	In assessing the risk of material misstatement, the auditor may overestimate certain specific risks and underestimate other general ones. This would reduce the auditor's ability to determine which areas require greater professional scepticism.
Selective perception	Observers' expectations influence how they observe the world.	Auditing standards presume that evidence can be gathered neutrally. If auditors' subconscious preconceptions influence their ability to gather evidence in a neutral way, this could impair their decision-making. If an auditor can genuinely maintain a sceptical mindset throughout the audit, this would enhance the application of professional scepticism, whereas this would be undermined if the auditor believes that management is fundamentally honest.
Stereotyping	Stereotyping is the tendency to put people into groups and then assign the group's qualities to individuals in the group.	Stereotyping may cause an auditor to overestimate or underestimate management's fundamental honesty, undermining the exercise of professional scepticism either by causing the auditor to overlook possible misstatements or by diverting resources into the wrong areas. Similarly, stereotyping may impair preparers' view of their auditors, as well as regulatory and public perceptions of auditor conduct.
Blind-spot bias	Blind-spot bias is the view that 'everyone is biased except for me'. While there's no evidence that this directly undermines rationality, it can affect an individual's susceptibility to other forms of cognitive bias.	The blind-spot bias may serve to accentuate the effects of other cognitive biases among participants.  The blind-spot bias may also undermine an individual's capacity to take account of other points of view. This is because conflicting views are attributed to others' bias, whereas one's own opinion is considered to be neutral. Again, this can influence the behaviour of all participants in the financial reporting process, including preparers, auditors, regulators and investors.  Not all the impacts of this bias may be bad. For example, an auditor who overestimates management's biases may try to compensate for this by being more sceptical. On the other hand, the literature documents that attributing differences of opinion to bias may exacerbate mistrust and misunderstanding, which could be damaging to audit quality (Pronin et al. 2002).

## The benefits of considering cognitive biases

A standard-setting process that starts from the perspective that cognitive biases are part of the human condition can make use of the latest findings from psychology on how to design systems to mitigate these biases. It also avoids inadvertently introducing bias into the system.

A standard-setting process that incorporates the perspective that cognitive biases are part of the human condition can make use of the latest findings from psychology on how to design systems to mitigate these biases. It also avoids inadvertently introducing bias into the system.

Nonetheless, some amount of residual bias is inevitable. As a result, even with a standard-setting process that allows for biases, stakeholders will still need to be realistic about the practical limitations of audit if audit quality is not to be undermined.

A further benefit is that appreciation that cognitive biases can affect all stakeholders may reduce misunderstandings between them. Sometimes, criticisms of the financial reporting process derive from bias rather than flaws in the system or a failure to hold preparers or auditors to account. Attempts to amend the financial reporting process to fix these perceived flaws may not increase audit quality. Indeed, by chasing shadows, it may even worsen audit quality.

Finally, ACCA believes this approach better explains the meaning of objectivity within auditing standards. An audit is predicated on the notion that – most of the time at least - management is honest. The purpose of professional scepticism is to offset, as far as is reasonable, management's innate cognitive biases in preparing the financial statements. To call upon auditors to doubt more - for example, to presume that management is actively dishonest – may make the audit engagement untenable owing to the responsibilities for performing acceptance and continuance procedures in ISA 220. Similarly, while the auditing process should be responsive to public expectations, when determining the public interest standard setters should take account of the extent to which these expectations may themselves be biased. Otherwise standards may divert auditors into performing procedures that do not improve audit quality.



# Rationale for an informed approach to standard-setting

Decision-making without considering biases can be counterproductive, if it ends up inadvertently reinforcing those biases in ways that undermine audit objectives.

#### IT IS IMPORTANT TO AVOID INADVERTENTLY INCREASING BIAS

Decision-making without considering biases can be counterproductive, if it ends up inadvertently reinforcing those biases in ways that undermine audit objectives. For example, as referred to above, brainstorming sessions on audit fraud risk, a mandatory part of the audit-planning process, can increase groupthink if not structured appropriately, thus removing many of the intended benefits of having a diverse team (Brazel et al. 2010).

Similarly, in a number of ISAs, the auditor is instructed to commence planning by gaining an understanding of what management has done to prepare its estimate. This would appear to exacerbate the impact of anchoring and availability biases. This impact could be reduced by requiring auditors to prepare their own estimate first and then understand the differences between that and management's estimate. This would, however, add to the cost of an audit. There is a need for a proper, open debate about the extent to which this additional cost is desirable.

#### AUDITING STANDARDS SHOULD ADOPT AN APPROACH TO BIAS THAT REFLECTS CURRENT THINKING

As noted above, the auditing standards refer to bias in a way that is different to the way it is used in the psychology literature on cognitive biases. Auditing standards require the auditor to be alert to indicators of management bias and to take mitigating action where it is identified.

The literature indicates that cognitive biases are subconscious and always present. Therefore management will be biased, so references in the standards to 'possible management bias' may be unhelpful in informing the auditor what they need to do in response. An alternative would be to recast references to bias in terms of the main cognitive biases and to require the auditor to act to mitigate anticipated cognitive biases, as far as possible, and to respond to inappropriate conscious biases.

### STAKEHOLDERS SHOULD LEARN FROM OTHER DISCIPLINES

Further lessons might be learned from other disciplines. For example, the healthcare and airline industries have both put customer safety at the centre of the way their industries are regulated. Doing so has required substantial investment in systems that are responsive to human factors.

A human factors approach would recognise the cognitive biases that exist in human decision-making and seek ways to reduce their impact. For example, systems in the airline industry are designed to take account of how people actually behave in practice rather than how they might behave if perfectly rational. Following the 1977 Tenerife Airport disaster, several system improvements were made as a result of inspection findings. In response to the observation that the first officer might have been unwilling to overrule his more experienced and more senior captain, systems were changed to formalise the process for junior pilots to communicate their concerns to their captains. A similar approach to auditing could lead to similar increases in audit quality as those observed in airline safety.

## Possible concerns about this approach

While cognitive biases are an accepted part of the psychology literature, there may be some reservations about adopting this approach.

While cognitive biases are an accepted part of the psychology literature, there may be some reservations about adopting this approach.

### 'ISN'T THIS APPROACH AN EXCUSE FOR BAD AUDITING?'

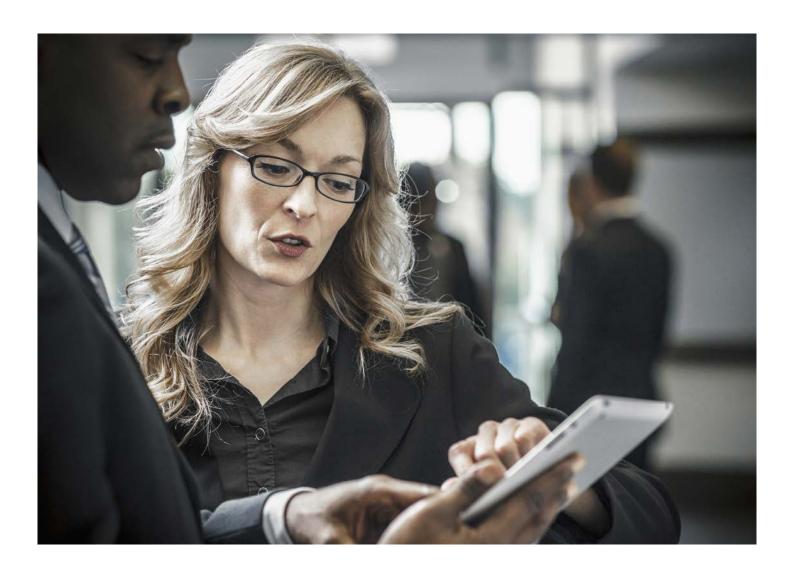
Some might argue that admitting to cognitive biases is merely an excuse for bad auditing. This line of reasoning suggests that if auditors were more sceptical where currently they are not, they would improve audit quality. So to present an alternative explanation must be to excuse poor quality audit.

ACCA believes this argument is flawed. A system of standards and a regulatory process that does not take account of the psychology literature on human decision-making cannot be as effective as one that does. In particular, ACCA believes that a regulatory system that does not mitigate its own biases may encourage behaviours in audit teams that do not contribute to improved audit quality.

#### 'THIS APPROACH WON'T WORK!'

ACCA believes not only that this approach can work, but also that it is essential for improving audit quality to meet society's demands.

Even so, it will require strong leadership to ensure that the views of all stakeholders – auditors, preparers, investors, regulators, standard-setters and the public – are listened to, respected and addressed. Without this leadership, individual interests may prevail over the public interest. ACCA suggests that a body of the stature of International Federation of Accountants (IFAC), with support from the Public Interest Oversight Board (PIOB), could show the necessary leadership and coordination to satisfy the various stakeholders.



## How standard-setters and others can respond

As an illustration of the way forward, ACCA recommends the following steps as part of a plan for integrating recognition of cognitive biases into standard-setting.

As an illustration of the way forward, ACCA recommends the following steps as part of a plan for integrating recognition of cognitive biases into standard-setting.

- Articulate in application guidance or other explanatory material how the audit engagement team can approach planning and review in a way that minimises cognitive biases.
- Put ISA 315 and ISA 330 at the heart
   of the application of professional
   scepticism in an audit. As a starting
   point, areas of higher risk of material
   misstatement would appear to require
   greater professional scepticism and areas
   of lower risk would appear to require less.
- Review the use of 'bias' within auditing standards to conform its use with that in the psychology literature.
- Examine the impact of availability and anchoring bias on the auditor's collection of sufficient appropriate evidence as defined in ISA 500 and consider what might be done, taking into account the costs and benefits of seeking more evidence, particularly

- where such additional evidence corroborates management's assertions.
- Establish within ISQC 1 and ISA 220
  how firms can implement firm-level
  and engagement-level quality-control
  processes that reduce the impact
  of cognitive biases on professional
  scepticism.
- Provide guidance for engagement teams on how to use substantive analytical procedures in a way that, as far as possible, avoids bias.
- Consider whether the concept of 'objectivity' within the Code of Ethics should recognise or try to mitigate cognitive biases.
- Support auditors, through continuing professional development and targeted training, in understanding bias and how biases can be mitigated. For example, the online professional scepticism training tool developed by Chartered Accountants Australia and New Zealand may be useful for providing audit teams with relevant training.



ACCA looks forward to working as part of the global accountancy profession in helping auditors deal with these challenges.

#### ACCA'S WORK IDENTIFIES THREE WAYS FORWARD.

Firstly, the exercise of an 'appropriate' level of professional scepticism requires greater alertness to possible misstatements in some areas and less alertness in others. One approach might be to provide guidance, in ISA 315 and ISA 330, on linking the exercise of professional scepticism with the risk assessment in a more formal way. The expectation would be for the auditor to form a view on the risk of material misstatement and to direct more work to the riskier areas of the audit. Regulators could then reasonably expect the auditor to be more sceptical in those areas.

While this has the advantage of simplicity, it could mean that issues in less risky areas of the audit go unchallenged and undetected, particularly in the light of confirmation bias. Auditing standards can either adapt to create a more granular and in-depth risk assessment or tolerate this as a 'price worth paying' for making auditors more alert in the riskiest, most complex parts of the audit.

Secondly, there are some practical steps that participants can take to reduce the impacts of cognitive biases on all stages of the audit process, including planning, fieldwork, engagement team review, quality control and audit oversight. ACCA encourages everyone with an interest in auditing to contribute to this process.

Finally, ACCA looks to all stakeholders to be realistic as to the audit process's capabilities for overcoming certain cognitive biases. Seeking to push the audit process beyond these boundaries may erode audit quality and undermine confidence in the audit process.

ACCA looks forward to working as part of the global accountancy profession in helping auditors deal with these challenges.

#### CONSULTATION AND AREAS FOR FURTHER RESEARCH

ACCA is keen to engage and lead on the issues raised in this publication. Please send any comments to:

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Indications of interest from academic researchers wishing to develop any of the ideas in this publication are especially welcomed.

# Appendix: Professional scepticism in auditing standards

This section documents the references to professional scepticism in auditing standards.

ISA 200 'Overall objectives of the independent auditor and the conduct of an audit in accordance with the International Standards on Auditing'

ISA 200 requires 'that the auditor exercise professional judgement and maintain professional scepticism throughout the planning and performance of the audit' (ISA 200.7) and that the auditor must 'plan and perform an audit with professional scepticism recognising that circumstances may exist that cause the financial statements to be materially misstated' (ISA 200.15).

The application material to ISA 200 provides further guidance.

- A18 Professional scepticism includes being alert to, for example:
  - Audit evidence that contradicts other audit evidence obtained.
  - Information that brings into question the reliability of documents and responses to inquiries to be used as audit evidence.
  - Conditions that may indicate possible fraud.
  - Circumstances that suggest the need for audit procedures in addition to those required by the ISAs.
- A19 Maintaining professional scepticism throughout the audit is necessary if the auditor is, for example, to reduce the risks of:
  - Overlooking unusual circumstances.
  - Over-generalising when drawing conclusions from audit observations.
  - Using inappropriate assumptions in determining the nature, timing and extent of the audit procedures and evaluating the results thereof.
- A20 Professional scepticism is necessary to the critical assessment of audit evidence. This includes questioning contradictory audit evidence and the reliability of documents and

responses to inquiries and other information obtained from management and those charged with governance. It also includes consideration of the sufficiency and appropriateness of audit evidence obtained in the light of the circumstances, for example, in the case where fraud risk factors exist and a single document, of a nature that is susceptible to fraud, is the sole supporting evidence for a material financial statement amount.

- A21 The auditor may accept records and documents as genuine unless the auditor has reason to believe the contrary. Nevertheless, the auditor is required to consider the reliability of information to be used as audit evidence. In cases of doubt about the reliability of information or indications of possible fraud (for example, if conditions identified during the audit cause the auditor to believe that a document may not be authentic or that terms in a document may have been falsified), the ISAs require that the auditor investigate further and determine what modifications or additions to audit procedures are necessary to resolve the matter.
- A22 The auditor cannot be expected to disregard the past experience of the honesty and integrity of the entity's management and those charged with governance. Nevertheless, a belief that management and those charged with governance are honest and have integrity does not relieve the auditor of the need to maintain professional scepticism or allow the auditor to be satisfied with less than persuasive audit evidence when obtaining reasonable evidence.

Paragraph A69 of ISA 200 emphasises that the requirements of ISAs apply throughout the entire body of standards and that while the requirements of one ISA are not necessarily repeated in others, they still apply. The issue of professional scepticism is used as an example.

### ISA 220 'Quality control for an audit of financial statements'

The application material (ISA 220.A13) refers to the obligation of the engagement partner to inform the members of the engagement team of matters such as 'Their responsibilities, including the need to comply with relevant ethical requirements, and to plan and perform an audit with professional scepticism as required by ISA 200.'

#### ISA 230 'Audit documentation'

The application material (ISA 230.A7) says 'there may be no single way in which the auditor's professional scepticism is documented. But the audit documentation may nevertheless provide evidence of the auditor's exercise of professional scepticism in accordance with the ISAs. Such evidence may include specific procedures performed to corroborate management's responses to the auditor's inquiries'.

## ISA 240 'The auditor's responsibilities relating to fraud in an audit of financial statements'

Paragraph 8 states:

'When obtaining reasonable assurance, the auditor is responsible for maintaining professional scepticism throughout the audit, considering the potential for management override of controls and recognising the fact that audit procedures that are effective for detecting error may not be effective in detecting fraud.'

Paragraphs 12–14 remind auditors of their responsibilities in accordance with ISA 200, with a particular emphasis on conditions that may cause them to believe that a document may not be authentic or that terms may have been modified but not disclosed to them. These paragraphs are further supported by application material in paragraphs A7–A9.

Paragraph A17 of the application material expands on the auditor's responsibilities to be alert to possible management override: 'when evaluating management's responses to inquiries with an attitude of professional scepticism, the auditor may judge it necessary to corroborate responses to inquiries with other information'.

Paragraph A33 states that 'Determining overall responses to address the assessed risks of material misstatement due to fraud generally includes the consideration of how the overall conduct of the audit can reflect increased professional scepticism, for example through... increased sensitivity in the selection of the nature and extent of documentation to be examined in support of material transactions [and] increased recognition of the need to corroborate management explanations or representations concerning material matters'.

#### ISA 250 'Consideration of laws and regulations in an audit of financial statements'

Paragraph 8 of ISA 250 refers to the requirement for the auditor to maintain professional scepticism throughout the audit, in light of the extent of laws and regulations that affect the entity.

#### ISA 315 'Identifying and assessing the risks of material misstatement through understanding the entity and its environment'

The application material to ISA 315 (paragraph A116) refers to the ISA 200 requirement to plan and perform the audit with professional scepticism.

### ISA 330 'The auditor's responses to assessed risks'

Paragraph A1 of the application material identifies that maintaining professional scepticism may form part of the engagement team's response to addressing the assessed risks of material misstatement.

## ISA 540 'Auditing accounting estimates, including fair value accounting estimates, and related disclosures'

The application material to ISA 540 (paragraph A40) states that the auditor's professional scepticism assists in identifying circumstances or conditions that increase the susceptibility of accounting estimates to, or indicate the presence of, possible management bias. As a result, the auditor may need to develop further audit procedures.

#### ISA 550 'Related parties'

Paragraph 7 notes that professional scepticism is particularly relevant to identifying any related party relationships and transactions that have not been disclosed to the auditor. Further guidance is provided in the application material (ISA 550.A9).

### ISA 610 'Using the work of internal auditors'

The application material to ISA 610 (paragraph A14) observes that the self-review threat that would be created were an external auditor to provide internal audit services to an audit client may affect the (external) auditor's ability to exercise an appropriate level of professional scepticism when reviewing that work. The requirement to exercise professional scepticism when reviewing the work of internal audit is reinforced in paragraph A26.

### IAPN 1000 'Special considerations in auditing financial instruments'

Paragraphs 71 and 72 of IAPN 1000 outline how professional scepticism can be exercised in the audits of financial instruments. This highlights how the use of complex models can make the appropriate exercise of professional scepticism difficult.

## ISA 700 'Forming an opinion and reporting on financial statements' (effective from 15 December 2016)

Paragraph 39 (a) of ISA 700 requires the auditor to state in the audit report that the auditor maintains professional scepticism throughout the audit.

# ISA 720 'The auditor's responsibilities relating to other information' (effective from 15 December 2016)

The application material to ISA 720 (paragraph A23) reiterates the auditor's responsibility for planning and performing the audit with professional scepticism, and for maintaining professional scepticism when reading and considering other information presented alongside the financial statements.

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