Ethics and Integrity in Educational Contexts 6

Guy J. Curtis *Editor*

Academic Integrity in the Social Sciences

Perspectives on Pedagogy and Practice

Springer

Ethics and Integrity in Educational Contexts

Volume 6

The aim of this series is to provide an authoritative series of books on topics relating to ethics and integrity in educational contexts. Its scope includes ethics and integrity, defined in broad and inclusive terms, in educational contexts. It focuses on higher education, but also welcomes contributions that address ethics and integrity in primary and secondary education, non-formal educational contexts, professional education, etc. We welcome books that address traditional academic integrity topics such as plagiarism, exam cheating, and collusion.

In addition, we are particularly interested in topics that extend beyond questions of student conduct, such as

- Quality assurance in education;
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- Admissions fraud;
- Fake and fraudulent credentials;
- Publication ethics;
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Editor

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Series Editor Note

Academic integrity has common foundations across academic disciplines, but there are also important nuances to be understood in particular fields of study. In this book, led by Guy Curtis, authors from the social sciences offer important insights into how academic integrity can be understood and enacted in subject areas that fall under this umbrella. This book showcases the work of some of the most prominent and well-respected social scientists whose expertise in academic integrity is world-renowned.

This is the first book of its kind, where academic integrity is unpacked specifically through the lens of subjects such as criminology, psychology, sociology, education, and other areas of social sciences. Readers will enjoy chapters on preventing misconduct, building cultures of integrity, misconduct investigation, pedagogy and skill-building, and theory. Topics such as lies, deception, emotion, and behaviour ensure that readers remain riveted.

This volume adds to the depth and breadth of titles in the Ethics and Integrity in Educational Contexts book series. It will no doubt be a book that readers turn to time and again for advice, guidance, and insights.

University of Calgary
Calgary, AB, Canada

Sarah Elaine Eaton

Preface

Academic Integrity in the Social Sciences was Sarah Eaton's idea. I went along with it because it was a good one. Sarah is the Editor of the Ethics and Integrity in Educational Contexts series of books, of which this book is one. Sarah is also Editor of *Handbook of Academic Integrity* (2nd ed.), and the *International Journal for Educational Integrity* – I imagine she doesn't sleep. Truthfully, I was simultaneously honoured, excited, and daunted when Sarah asked me to propose and edit this book. Nonetheless, I was already sure I would work well with Sarah because we were well advanced in co-editing another book (*Contract Cheating in Higher Education*) when she suggested this one.

The first challenge for me in compiling this book was to find an answer to the question: What are the social sciences? For relevant context, I turned to the first edition of the *Handbook of Academic Integrity* and the chapter helpfully titled "Academic Integrity in Social Sciences" by Löfström (2016), who wrote:

> Social sciences (e.g., sociology, economics, psychology and counseling, education, anthropology, political science) (cf. Klemke et al. 1980) excluding law, which is discussed in a separate chapter in this volume, include a relatively broad collection of fields with different emphases on basic and applied research. (p. 714)

With this list of academic disciplines in mind (and adding my own pencilled in further suggestions of criminology and organisational behaviour), I set about seeking academic integrity scholars whose disciplinary expertise sat within the social sciences. As it turns out, this was very much an all-star group of some of the leading scholars in academic integrity – with rather a lot of them originating from specialisations in either education or psychology. To wit, many chapters in this book are authored by contributors to the first and/or second editions of the *Handbook of Academic Integrity*, regular presenters at conferences and information sessions on academic integrity, leaders of academic integrity professional organisations, and prolific publishers of academic integrity research.

This book is subtitled "Perspectives on pedagogy and practice". As Sarah Eaton is well aware, I like alliteration in my writing (as well as in jokes and bad puns).

Some of the perspectives covered in this book include social sciences approaches to research methods that can be applied to questions of academic integrity; the importance and impact of policy, including honour codes, in and on academic integrity in the social sciences; and how academic integrity can be taught within a social sciences academic context. Other chapters consider social scientific questions, such as: what influence the social context has on student cheating and plagiarism, how can crime preventions approaches be applied in educational contexts to limit academic misconduct, what answers does moral psychology provide and what questions arise when its lens is turned on academic integrity, and how can understanding the psychology of lying help investigators or academic misconduct? And, in amongst it all, is a great chapter co-authored by Professor Löfström, whose definition helped me understand the scope that a book focused on the social sciences should cover.

The social sciences encompass a set of academic disciplines that sometimes court controversy and are unafraid of tackling big issues. In that spirit, and because there's nothing like finishing with a bang, the final chapters of this book focus on tough topics: Elena Denisova-Schmidt writes about academic corruption, Brian Martin considers "tactics of academic abuse", and Sutton and Griffiths outline the possibility that one of the most impactful ideas in all of science was plagiarised!

So now, the first discipline-specific book on academic integrity is here as part of the Ethics and Integrity in Educational Contexts series. I hope to see books on academic integrity in (and from the point of view of) other academic disciplines such as business, healthcare, and STEM as part of the series too, but that is for the future – and the future is something that you can read about in the Afterword.

University of Western Australia Guy J. Curtis
Perth, WA, Australia

Reference

Löfström, E. (2016). Academic integrity in social sciences. In T. Bretag (Ed.). *Handbook of academic integrity* (pp. 713–728). Springer.

Acknowledgements

Taking on the job of editing a book is work that fits within any academic's "research time" in their university-allocated workload, which is often whatever time is leftover after assigned teaching, administrative, and service responsibilities. For many years in my career, I had a nominal allocated research time of ~10%, and a real amount of research time equivalent to "whatever I was prepared to do after regular business hours". So, the first acknowledgement I have to give is to my current employer, the School of Psychological Science at the University of Western Australia, which provides academic staff with manageable teaching and service roles, which allows us to have research time within our paid hours of work.

I'd like to thank the series editor Assoc. Prof. Sarah Eaton for inviting me to edit this volume in the Ethics and Integrity in Educational Contexts series.

Independent reviewing is vital to making academic work better. Therefore, I'd particularly like to thank Prof. Dawn Bennett (Bond University) and Dr Sandra Barker (UniSA) for independently reviewing my chapter in this book, and Associate Professor Joe Clare (UWA) for reviewing the chapter led by Holly Tatum, which I co-authored. I would also like to thank the two anonymous reviewers of the completed manuscript for of the whole book, your feedback and editorial work helped make this book better.

Finally, I'd like to thank my wife Amanda and our children Leo and Sophia who give my life meaning and keep my life interesting, I love all three of you.

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Chapter 1
Do Students Follow the Wisdom or the Madness of Crowds?

Guy J. Curtis

Abstract The collective decisions of groups of people can often be better or more accurate than the decisions of individuals. Still, many examples in human history show that bad ideas can be whipped up in large groups of people. When searching for what product to buy, what restaurant to visit, or what movie to attend, people often use popularity as a useful rule of thumb. Together, the phenomena of being informed by, and following, the crowd shows people's tendency to be influenced by *norms*. Referring to norms as a guide as to what to do in a situation, and being influenced by norms, is a common theme in social sciences research on academic integrity. Students' decisions to plagiarise, cheat, or follow good academic citation practices are influenced by what other students are doing. These decisions are also influenced by what students *think* other students are doing. Norms come in several forms, such as descriptive, injunctive, subjective, objective, and cultural. The influence of norms can be overt or non-conscious. This chapter considers the roles of norms in influencing academic misconduct and how norms can be used to improve academic integrity.

Keywords Academic integrity · Academic misconduct · Norms · Descriptive · Injunctive · Subjective · Culture

> *Men, it has been well said, think in herds; it will be seen that they go mad in herds, while they only recover their senses slowly, and one by one.* (Mackay, 1852, p. viii).
>
> *Paradoxically, the best way for a group to be smart is for each person in it to think and act as independently as possible.* (Surowiecki, 2005, p. xix–xx).
>
> *The eccentricity people have as individuals, the tragic predictability in groups. Every little snowflake is unique, but it's all just snow.* (Boyle, 2022).

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Everyone Else Is Doing It

When ascending or descending a large building using a device that Americans call an "elevator" and the English call a "lift", there are unspoken rules of behaviour. When the elevator arrives to collect you from your floor, you make way for people exiting before you get in. Young children may not know that they should allow others out first, and their guardians will tell them to wait for others. When you get in, you check whether the button for the floor you are going to has been pressed, and, if not, you press it. You then attempt to maximally separate yourself from other people in the elevator and stand silent and still as it goes up or down to your floor. If you are in the elevator with someone you know, and a stranger is also present, you may make quiet conversation with the person you know. If the passengers are only you and your acquaintances you might talk at a louder volume. If the elevator stops at a floor before you alight, you make way for others getting in or out, and when it reaches your floor, you excuse yourself if you have to brush past other people in order to exit.

The description of what to do in an elevator sounds familiar, right? You've probably been in an elevator enough times to know this is how it is done. These well-known widely-shared patterns of behaviour are called *norms* in psychology and many other social sciences.[1] Some are not equally shared – the occasional person will get in the elevator talking noisily with their friends and seem unabashed by this. Some behaviours are so well known that even in my example, they do not need to be said. If you imagined yourself following the elevator-use script above, was everyone in the elevator facing the door, the side walls, or the back? "The door" you think, without a moment's contemplation – turning to face the door when you get in an elevator is a very well engrained norm indeed. So, take a few seconds to imaging getting into the elevator and facing the side wall. Would you feel wrong or awkward? Imagine someone got into the elevator and faced the side wall while you face the doors, what would you think of them? Are they weird, or perhaps even threatening?

A norm like facing the elevator doors is so well understood that not only did you imagine it before I asked you to, you probably felt uncomfortable just imaging facing the side. People would stare, you'd probably stare at someone doing it. A highly engrained norm becomes a powerful and unconscious guide to behaviour, and breaking it requires similar concentration as would writing with your non-dominant hand.

Observers of, and commentors on, human behaviour have noted the influence of the group on the individual since before psychology was even considered to be an independent academic discipline. *Extraordinary Popular Delusions and the Madness of Crowds* by Mackay (1852), quoted at the start of this chapter, pre-dates, but helped to inspire, the foundational *Principles of Psychology* by James et al. (1890) published nearly 40 years later. Mackay (1852) told the comprehensive tales of how people at, and before, his time were swept up in various crazes, religious movements,

[1] The concept of objective norms of morality is discussed in literature on ethics and moral philosophy. This chapter is focused on the concept of norms as it is understood in psychology.

fashions, and investment bubbles that all gained momentum the more followers, devotees, and dupes joined the bandwagon, and all fell apart as people slowly gained (or regained) some perspective. To put it in psychoanalytic terms, the actions of people in groups around us have the potential to unshackle the id, but also, the potential to bolster the super-ego.

So, why is it that norms can be particularly influential on people's behaviour? What value is there in following norms? According to Cialdini's (2009) classic work on the psychology of influence, following norms provides us with a good way to determine the right thing to do in many situations without having to necessarily reason out every action and consequence. In short, if a lot of people are buying a certain product, for example a particular car model, there is probably something good about it that makes it more popular than other models. However, if people only follow the crowd and do no other thinking, the popularity of a product may simply become a self-reinforcing system (it's popular because it's popular), hence the wisdom of the crowd may lead us astray (Cialdini, 2009). Another reason for following norms is safety (Cialdini, 2009). If you are visiting the zoo and a large crowd of people come running toward you it is best to run with them rather than wait to see which escaped animal is chasing them.

Bandura's social learning theory also speaks to the influence of other people on our actions (Bandura & Walters, 1977). While classical reinforcement theory (e.g. Skinner, 1958) suggests that we do what gets rewarded, Bandura and Walters (1977) argued that people can learn to do what they see others being rewarded for doing. Thus, if we are a student and we see another student succeed by cheating, we can learn from this that cheating can be rewarding.

Social scientists who have turned their minds to academic integrity have found that norms exert an influence on whether students engage in academic misconduct such as cheating and plagiarism (Zhao et al., 2022). In this chapter, I review research on the effect of norms on academic misconduct and consider how norms can be used to enhance academic integrity in education. Before this, however, it is important to distinguish between different types of norms.

Forms of Norms

There has been some inconsistency in the terms used to describe various types of norms within the psychology literature. For example, in the theory of planned behaviour (discussed in more detail later), Ajzen (1991) describes "subjective" norms as people's perceptions of the pressures from important others to engage in, or refrain from, certain behaviours. Other authors define perceptions of what *should be done* in a situation as "injunctive" norms (e.g., Locke et al., 2017; Rivis & Sheeran, 2003), which would make Ajzen's (1991) "subjective" norm an "injunctive" norm by this definition. Given such disagreements over definitions, in this section I am going to outline what I intend the following six terms to mean in the context of norms: subjective, objective, descriptive, injunctive, implicit, and explicit.

First, it is crucial to distinguish between subjective and objective norms. Using a dictionary-style definition, *subjective* norms are what individuals perceive norms to be, whereas *objective* norms are those that factually describe the typical behaviour in a situation. This distinction is important if we consider the psychological phenomenon the false-consensus effect (Ross et al., 1977), which shows that people tend to overestimate the commonality of their own beliefs – i.e., the subjective and objective norms of behaviour can differ systematically. A consequence of the false-consensus effect is that people can subjectively perceive their own minority beliefs about what is typical or acceptable in a situation as being a majority (or normative) position that differs from objective reality. Thus, an objective norm may be quantified as one that describes the real prevalence of a behaviour in a situation.

A *descriptive* norm is a representation of what people typically do (objective descriptive norm), or think others typically do (subjective descriptive norm), in a given situation. Typically, for example, people in the UK stand in queues at bus stops, sing along with their favourite songs at a rock concert, and turn to face the doors once they have entered a lift. A descriptive norm can also indicate what people typically do not do, such as ocean swimming in mid-winter. Descriptive norms can vary in strength and this strength can be described statistically by way of a simple percentage of the population. A strong descriptive norm is something nearly everyone in a population does, or is thought to do, in a given situation, e.g., people in North Korea crying in public when their leader dies. A weak descriptive norm is still a majority behaviour, but where a significant proportion of people do something else, e.g., eating meat.

As noted above, an *injunctive* norm is a representation about what is the right thing to do in a situation. Injunctive norms can be subjective perceptions of the consensus of others or imposed more objectively through laws, regulations, and policies. Although people differ as individuals, injunctive norms can have a powerful effect on how they behave in one situation versus another. Take a society such as Japan, where there are highly formalised and deferential behaviours associated with, for example, a tea ceremony, but also the wackiest gameshows in the known world where both contestants and audiences act exuberantly. A Japanese person may be personally introverted or extroverted, but when put in the situation where the tea ceremony or gameshow injunctive norms apply, they will behave consistently with those norms (Locke et al., 2017).

An *implicit* norm is something that can be inferred from a situation, is not conscious to the person in that situation, and yet may still influence the person. Cialdini et al. (1990), for example, observed the impact of littering by leaving differing numbers of flyers on the floor of a dormitory mail room. They observed that the more flyers were left on the floor, the more students also dropped the flyers from their own mailboxes on the floor. This suggested that people subconsciously picked up that the norm set by others was to drop flyers when more were on the floor, and they followed this norm. Aarts and Dijksterhuis (2003) found that just getting people to think about libraries and fancy restaurants, without being in them, led to them talking more quietly and cleaning up their cookie crumbs. Again, this suggests that mentally "activating" a norm, even without specific awareness of the norm, can influence behaviour.

Explicit norms are those that are made salient when people are told what others do, are doing, or expect to do. Economists who are interested in "nudges", for example, have found that they increase compliance with on-time bill-payment requests by letting people know that most other people pay on time (Thaler & Sunstein, 2021). This example is an objective descriptive norm being made explicit. In the context of academic integrity and academic misconduct, various authors have suggested making descriptive norms such as "most students do not engage in contract cheating" (Rundle et al., 2019, p 1.) explicit, as well as advocating for injunctive norms of what is "the right thing to do" to be explicitly communicated to students in various ways (McCabe et al., 2006).

In sum, the six terms for norms described above are, in fact, three dichotomies (subjective vs. objective; descriptive vs. injunctive; implicit vs. explicit). As the discussion has begun to imply, it is possible for a norm to have three descriptors based on the three dichotomous categories. For example, an implicit-subjective-injunctive norm is a norm of what is the right thing to do (injunctive), that someone is not consciously aware of (implicit), based on their own perceptions of reality (subjective). Thus, the permutations of these terms mean that there are ultimately eight categories of norms, and it is possible that each has equally powerful, or more or less powerful, impacts on people's behaviour depending on the situation, the individual characteristics of the person, and the strength of the norm. Clearly, this has the potential to get quite complicated.

Academic integrity and academic misconduct research has not been so thorough, or so hair-splitting, to have explored the influence of all forms of norms with all types of situations and all kinds of people. Research on academic integrity has, in some respects, done a good job of suggesting that norms are potentially highly influential on students' propensity to cheat and plagiarise. On the other hand, research on academic integrity has a long way to go to fully unpack and understand the influence of all forms of norms on academic misconduct.

Research on Norms and Academic Integrity

For around 80 years, researchers have been interested in, and aware of, the influence of group norms among higher education students on each other's beliefs, attitudes, and behaviours (e.g., Newcomb, 1943). It was not until the 1980s–90s that studies examining the relationship between norms and academic misconduct began to be regularly published. Articles where norms are centrally or peripherally examined as a predictor of student misconduct have appeared across a broad range of social sciences journals covering psychology (e.g., Rundle et al., 2019, 2023), criminology (e.g., Ogilvie & Stewart, 2010), higher education (e.g., Curtis et al., 2018), and further afield in areas like business (e.g., Hendy & Montargot, 2019; Simkin & McLeod, 2009). A key driver of this trend was the development of the theory of planned behaviour (Ajzen, 1991), where an early study testing this theory showed that it could predict students' engagement in cheating (Beck & Ajzen, 1991).

The theory of planned behaviour is a good place to start in discussing research on the relationship between norms and academic misconduct. This theory proposes that attitudes (mostly conceived of as how people evaluate and/or feel about something), subjective norms (typically injunctive-subjective norms as discussed earlier), and perceptions that relevant behaviour can be controlled, together predict people's intentions, and their intentions predict their behaviour (Ajzen, 1991). As observation is critical to the social scientific method applied to academic integrity (Curtis & Clare, 2023), I was, in fact, motivated to research and write this chapter based on my observation that norms were often the strongest predictor of academic misconduct in several studies that I have worked on that examined the theory of planned behaviour (e.g., Curtis et al., 2018; Tindall et al., 2021).

Some of the earliest systematic psychological evidence of norms influencing academic misconduct comes from a study published in 1987, before the publication of the theory of planned behaviour. Stevens and Stevens (1987) examined students' self-perceptions as cheats and their perceptions of their peers' engagement in cheating. They found that the more students self-admitted to cheating, the more common they thought cheating was among their peers. Similar results were found more recently by Hard et al. (2006). Such findings, however, illustrate, as many other studies do, a potential example of the false-consensus effect: that students perceived their own beliefs and perceptions to be more widespread than they may have been. Importantly, they also show a relationship between the subjective-descriptive norms that students held and their own behaviour in the academic integrity context. However, as the relationship can be explained by the false-consensus effect, such studies leave open the important question of whether perceived norms *cause* rates of misconduct.

Other evidence suggests that although the false-consensus effect accounts for some of the relationship between the perceived prevalence of misconduct and engagement in misconduct (e.g., Curtis et al., 2022b), perceived norms most likely influence students' decisions to engage in misconduct. Franklin-Stokes and Newstead (1995), for example, provided students with open-ended questions asking them to offer explanations for why students engage in various forms of cheating and plagiarism. The qualitative analysis of students' responses to this survey found a theme of "everyone else is doing it" (i.e., it is the descriptive norm) as among the common reasons students provided for cheating. Similar results were obtained by Rezanejad and Rezaei (2013). These finding do not demonstrate a false consensus effect as the studies did not ask students to estimate some quantity of behaviour among their peers and disclose the quantity of their own behaviour of the same kind. One student engaging in misconduct may be setting an example for others to follow suit, which may ultimately become a norm. In the context of outsourcing coding assignments to bidders by computer science students, Clarke and Lancaster (2006) observed data suggesting that "once a student from a particular institution has posted an assignment as a bid . . . often within a week several other students from the same institution have also. . . ." (p. 11).

More recently, de Lima et al. (2022) found that the strongest predictor of plagiarism in their study was students' awareness of plagiarism among their peers. In their study, participants were asked if they engaged in various acts of plagiarism and whether they knew of other students who had engaged in the same acts. Asking for specific knowledge of other students' acts should be less effected by the false-consensus effect, which is driven by a subjective assessment of the commonality of others' behaviour. This finding concurs with that of Jurdi et al. (2012), who concluded that observing peers plagiarising increased rates of plagiarism. In sum, then, there is probative evidence from the studies reviewed in this paragraph that objective norms of peer misconduct may cause increased misconduct.

Recently, Zhao et al. (2022) conducted a meta-analysis of the effects of perceived peer cheating on students' own cheating. Covering 38 studies over 60 years, the papers reviewed in this meta-analysis included data from over 24,000 students. Their study also examined cultural influence on the connection between norms and cheating, which I will discuss later. In relation to the effect of perceived peer cheating on students' own cheating, Zhao et al. (2022) found that it was among the strongest predictors of cheating, with a large effect size (according to Gignac & Szodorai's, 2016, criteria) of $r = .37$. To be clear, the extent to which students perceive that their peers cheat was positively correlated with their own amount of cheating. To put this into a wider psychosocial context, the effect of subjective peer cheating norms on cheating is stronger than the effect on academic dishonesty of students' level conscientiousness ($r = -.25$), morality ($r = -.24$), and academic self-efficacy ($r = -.28$; Lee et al., 2020). In fact, according to Zhao et al.'s (2022) analysis, subjective peer cheating norms were the fourth strongest predictor of cheating from among 36 predictors examined in previous meta-analyses. Importantly, the strongest predictor of academic misconduct in these meta-analyses, neutralization, may itself be influenced by norms. Neutralization refers to students' capacity to provide post-hoc rationalizations for academic misconduct that may help them to feel less bad about cheating (Lee et al., 2020). Simola (2017) pointed out that the norm "everyone else is doing it" can be used by students *as* a rationalisation for violating standards of academic integrity.

Given that norms may cause increased or decreased academic misconduct, then, it is worth looking at norms within the theory of planned behaviour as a causal model for cheating and plagiarism. Numerous studies have found that norms contribute to academic misconduct in studies where the original or modified theory of planned behaviour was examined (e.g., Alleyne & Phillips, 2011; Beck & Ajzen, 1991; Chudzicka-Czupała et al., 2016; Harding et al., 2007; Tindall et al., 2021). Some of the studies where the theory of planned behaviour has been modified provide a particularly strong reinforcement of the importance of norms to academic misconduct. The theory of planned behaviour has been modified to include such variables as personality precursors of attitudes and norms (e.g., Stone et al., 2010), additional predictors of intentions (e.g., Uzun & Kilis, 2020), and additional mediators between norms and intentions (e.g., Curtis et al., 2022a; Rajah-Kanagasabai & Roberts,

2015). What these studies reveal about norms is that they typically remain significant predictors of academic misconduct intentions and academic misconduct behaviour even though further variables are also measured and accounted for. To be precise, norms significantly predict academic misconduct intentions and behaviour when also accounting for differences in personality (Stone et al., 2010), mastery motivation and policy knowledge (Jordan, 2001), moral obligation (Chudzicka-Czupała et al., 2016; Uzun & Kilis, 2020), self-control (Curtis et al., 2018), utility and opportunity (Sattler et al., 2013), experiencing negative emotions (Tindall et al., 2021), anticipating negative emotions (Curtis et al., 2022a), behavioural approach and inhibition tendencies (Lonsdale, 2017), and many other variables.

For the most part, studies of the theory of planned behaviour and academic misconduct have only looked at subjective-injunctive norms. However, descriptive norms can be predictive in the theory of planned behaviour (Rivis & Sheeran, 2003). And, some research based on the theory of planned behaviour has revealed that descriptive norms can be influential predictors of academic integrity breaches. Rajah-Kanagasabai and Roberts (2015), for example, included injunctive subjective norms and descriptive norms in a theory of planned behaviour study to predict research misconduct. They found that both forms of norms were significant predictors of justifications for unethical research behaviour, and descriptive norms also significantly predicted unethical behaviour unmediated by justifications and intentions. Curtis et al. (2018) found that descriptive norms predicted intentions to plagiarise in a theory of planned behaviour model in their first study. Their second study included both descriptive and injunctive norms, and both of these predicted plagiarism behaviours directly and mediated by intentions. Still, even outside of studies using the theory of planned behaviour, injunctive norms, such as what students think their professors expect, can influence their engagement in academic misconduct (Simkin & McLeod, 2009).

Returning to the forms of norms defined earlier, the review above shows that both injunctive and descriptive norms can influence the incidence of academic misconduct. In addition, the studies to-date indicate that students are influenced by subjective norms. The influence of objective, explicit, and implicit norms is less clear, as there have been little to no deliberate or systematic analyses, measurements, or manipulations of these norms in studies so far. Evidence of the influence of implicit norms can be indirectly inferred from some research, however. Because the influence of norms can be unconscious, we sometimes see in qualitative studies of academic misconduct that students do not offer norms as a reason for misconduct (e.g., Devlin & Gray, 2007), even though their influence is strong when norms are explicitly measured (cf. Zhao et al., 2022). Such contrasting findings stemming from different methods are consistent with the fact that people can be unaware of their motives (Nisbett & Wilson, 1977) or unaware that they were influenced by others in their peer group (e.g., Goethals & Reckman, 1973). Furthermore, there is some evidence that objective norms are influential on academic misconduct in the form of *cultural norms*.

Cultural Norms

The final form of norms I will discuss in this chapter as a potential influence on academic misconduct is cultural norms. Norms, as discussed so far, have not been differentiated among those that are relatively stable across cultural groups, different within cultural groups, and different between cultural groups. The last of these, the differences in norms between cultural groups, or "cultural norms", has been frequently studied in the context of academic integrity.

Cultural norms have been implicated as a contributor to rates of academic misconduct among students *from*, and students *in*, differing cultures. To unpack this statement, it has been suggested that students *from* some cultures plagiarise and cheat more when they study abroad in other cultures, and students studying *in* some cultures plagiarise and cheat more or less when compared with students studying *in* other cultures. There are three ways in which norms may contribute to any such culture-based difference: (1) norms of educational practices; (2) societal injunctive norms concerning what is acceptable; and (3) societal descriptive norms.

Norms of educational practice may include the promotion of repetitive learning and rote memorization (Maxwell et al., 2006). It has been suggested that such practices are typically more common in Asian than in Western countries (Ehrich et al., 2016). In a qualitative study, an Asian international student in Australia suggested that a rote learning norm was prevalent among their fellow Asian international students, which may have contributed to plagiarism among this group (Devlin & Gray, 2007). Ehrich et al. (2016) found that attitudes to plagiarism were more permissive among a sample of students in China than among a sample of Chinese students in Australia. Another study of Chinese students found that the strongest predictors of plagiarism were beliefs that there was a "standard" correct answer, and that it was important to imitate experts (James et al., 2019). Thus, it appears that norms of how education and study should occur may foster practices that could be interpreted as misconduct, such as plagiarism, in some cultures.

Although a norm of educational practice may lead students to study or approach assessment in ways that lead to breaches of academic integrity, there is also evidence suggesting that they can unlearn these norms in a new culture. Maxwell et al. (2006, 2008) found little evidence of differences in the attitudes regarding, and prevalence rates of, plagiarism comparing domestic Australian students with Asian international students who were studying in Australia. They contend that the Asian students in their study, who were surveyed after at least one semester of studying in Australia, may have adapted to the local institutional expectations. If this explanation is correct, then students' previous behaviours based on instructional and assessment norms were overridden by the newer norms of expected behaviour that they were exposed to.

The evidence above suggests that both cultural-based norms or educational practice and injunctive norms may influence students between and within cultures to act with more or less academic integrity as defined by a Western standard.

However, standards of what is acceptable practice, of course, vary between cultures. In addition, the descriptive normative rates of academic misconduct in some cultures may reinforce high or low rates of misconduct. Such descriptive norms can be self-perpetuating, such that we see reliable cultural differences. For example, Awdry (2021) reported results from a multi-nation survey of contract cheating in which she found that students in the nations with the highest rates of self-reported cheating also reported the highest rates of peer cheating.

Still, the influence of norms is not always linear and may be influenced by cultural values. A number of studies have found differing influences of norms in different cultures (Locke et al., 2017). For example, Enker (1987), looked at both attitudes and norms as predictors of academic misconduct among students in Israel and the United States. She found that norms predicted engagement in academic misconduct among students from both countries, but attitudes only predicted misconduct among the American students. A potential explanation for this finding is cultural collectivism vs. individualism. Israel is a more collectivist country than the United States, and norms may be more influential on behaviour in collectivistic societies whereas personal attitudes are more influential within individualistic nations (Locke et al., 2017). Supporting this idea, in a theory of planned behaviour study across seven countries, subjective norms were mostly stronger predictors of academic misconduct in more collectivistic than individualistic nations (Chudzicka-Czupała et al., 2016).

Zhao et al.'s (2022) review agreed that collectivism moderates the effect of norms on academic cheating, concluding that the relationship was weaker in more individualistic countries. In addition, they examined cultural value dichotomies that are described in the highly-influential work of Hofstede (1980) and found that several other cultural values moderated the relationship between norms and cheating. Specifically, the relationship was stronger in countries with lower uncertainty avoidance and higher power distance, but unaffected by cultural masculinity vs. femininity. Thus, cultural norms influence the strength of the relationship between perceived peer cheating norms and individual students' decisions to cheat.

In this section, I have discussed the potential for national and ethnic cultural norms to influence students' academic integrity behaviour. As a final note, it is worth pointing out that institutional or organisational culture within a higher education provider can also influence academic integrity behaviour (Yahr et al., 2009). Organisational culture includes a set of shared norms with any institution, but, because organisational culture exists within broader national cultures, these norms tend to be shaped by broader societal norms within which institutions exist. Happily, despite the variety and sources of norms that may increase academic misconduct, evidence suggests that norms can be used for good as a tool to reduce academic misconduct.

Using Norms to Combat Academic Misconduct

Given that norms are highly influential on students' tendency to engage in academic misconduct, and academic misconduct is undesirable, it makes sense to consider how to use norms to reduce students' engagement in academic misconduct. Again, the distinction between descriptive and injunctive norms is useful to consider as both may be co-opted in the fight against academic misconduct.

Researchers have suggested using the power of both injunctive and descriptive norms, rather than just one, in holistic approaches to tackle academic dishonesty. McCabe et al. (2006), for example, note that policy can play a role in setting standards of acceptable practice (i.e., policy can set the injunctive norm). At the same time, they suggest that students observing their peers pledging to uphold academic integrity standards would create a further normative pressure (this time potentially both descriptive and injunctive) to avoid academic misconduct. A similar practice has been advocated more recently by Lancaster (2022) as a strategy for reducing contract cheating. He suggests that students should be involved in anti-cheating campaigns to communicate to other students that cheating is not an acceptable behaviour among their peers. Moreover, McCabe et al. (2006) also contend that reducing the instances of successful cheating, e.g., via assessment security, will reduce the incentive to cheat. In other words, weakening the descriptive norm is another possible approach.

Drawing on behavioural ethics theories, Simola (2017) suggests that academic misconduct may be reduced by "renorming" in the form of re-setting students' subjective descriptive norms. While McCabe et al. (2006) had argued that objective descriptive norms could be changed by objectively reducing academic misconduct, Simola's (2017) position implies that making students subjectively believe the descriptive norm of misconduct was lower would have much the same effect. In particular, it makes sense to alert students to very low levels of serious cheating to mark it as an aberrant behaviour (Rundle et al., 2020).

Institutions, educators and students can spread a positive message about academic integrity, effectively communicating an injunctive norm to students about what behaviour is valued. Research findings, however, suggest that at times the particular source of descriptive and injunctive norms differentially affects their influence. Lonsdale (2017), for example, found that peer-based injunctive norms regarding academic misconduct were more influential on students than the students' parents' attitudes. In contrast, Engler and Landau (2011) found that students believed descriptive norms regarding plagiarism and cheating are more credible if they come from their professor than from another student.

Conclusion

People can be swept along by crowds to do the wrong thing, which might be described as mad, and to do the right thing, which might be described as wise. The research and theory discussed in this chapter suggests that in the context of academic integrity students follow both the madness and the wisdom of crowds. Norms are a powerful influence on students' tendency to both engage and not engage in academic misconduct. Various form of norms may contribute to students' engagement in plagiarism and cheating, and research is still to fully deconstruct whether different forms of norms have greater or lesser impacts.

A wider lesson from this chapter is that the behaviour of people in society is important to the behaviour of others. Norms are particularly powerful influences on people's behaviour, even when they do not realise it. As the quote from Boyle (2022) at the start of the chapter states, people are tragically predictable in groups, and one reason for this is that we tend to follow norms. However, in the social context people can redirect and reshape that same context for others by their own choices as to how they behave. In other words, although people are influenced by norms their own choices, particularly those that resist norms, contribute to norms evolving and influencing others to behave differently. As Surowiecki (2005) suggested, in a group, the wisest outcomes can be found when people think for themselves. Starting with an awareness of what norms are regarding academic integrity within an educational context, efforts to change those norms for the better are likely to have powerful and lasting effects.

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Chapter 2
Removing the 'Opportunity' for Academic Misconduct: A Criminology-Based Framework for Preventing Academic Integrity Problems

Joseph Clare

Abstract This chapter will explore the relevance of adopting a problem-oriented approach to reducing the opportunity for academic integrity problems. The most effective, sustainable crime prevention strategies have several things in common. They are typically problem-specific, focus on the immediate 'opportunity' (environment) within which crime problems have happened in the past, and involve manipulating the existing opportunity structure to make it less suitable for offending. All of this can be done without apprehending offenders, and instead can focus on highly victimised targets and frequently visited crime places. Crime does not displace and there can often be broader prevention-focused benefits than were anticipated through the scope of the targeted intervention. Problem-oriented policing is the name for a theory-based criminological framework intended to develop, implement, and evaluate novel, prevention-focused strategies to address crime problems. The intent of this chapter is to introduce readers to a framework they can use to minimise integrity risks associated with the specific assessment opportunities they are creating. This framework is theory-based, focused on prevention, and does not depend on detection and apprehension.

Keywords Academic integrity · Academic misconduct · Prevention · Problem-oriented policing · Situational crime prevention · Crime scripts

This chapter outlines a methodology for preventing non-random, opportunity-based academic integrity problems that translates what works in a policing context: the problem-oriented policing (POP) framework. Initially, the consistent patterns of non-randomness of crime across time, space, and people will be explained, along with justification of the useful relevance of these patterns for responding to crime problems in targeted, prevention-focused ways. Next, an overview of POP is

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provided, with the key components of this methodology outlined. Following this, the relevance of the POP approach for preventing academic integrity issues will be discussed, including details for using this methodology in creative ways to remove opportunities for academic misconduct in tertiary education contexts. The chapter concludes by emphasizing that POP is a problem-solving framework (as opposed to a solution in its own right) that must be committed to in a systematic, iterative, and ongoing manner to remove opportunities for academic misconduct.

This chapter aims to translate an existing body of crime prevention research to an academic misconduct context and demonstrate the relevance of other recent work that discusses the imperfect nature of measurement (Clare & Rundle, 2022; Curtis & Clare, 2023) and prevention (Baird & Clare, 2017; Clare, 2022; Hodgkinson et al., 2016) with respect to academic integrity breaches. The POP approach has worked for over 40 years to reduce a wide range of crime problems and its success has not depended on detection, apprehension, and punishment of offenders (Tilley & Burrows, 2010). Meta-analysis has demonstrated that POP implementation results in a 34% decline in crime/disorder in treatment areas/groups relative to controls (Hinkle et al., 2020). This review of POP studies also found there was no evidence that targeted interventions simply create an equivalent problem somewhere else (termed within the crime prevention literature as 'crime displacement') and suggestion POP can have a positive impact on issues that extend beyond the focus of the targeted interventions (termed within the crime prevention literature as a 'diffusion of benefits', Hinkle et al., 2020). Those interested in the broader history and development underpinning POP, are strongly encouraged to review the seminal practitioner-focused, "Crime analysis for problem-solvers in 60 small steps" by Clarke and Eck (2005).

Crime Is Non-Random Across Time and Space, Which Is Useful for Prevention

Criminological schools of thought are many and varied. One major source of division relates to the focus: criminality (the reasons for offending) versus crime (the where, when, and what of the offence). The focus of this chapter is largely on the latter – what can be done to understand the proximal opportunity structure that influences the non-random distribution of crime (and by extension, academic misconduct) across time, place, targets, and actors (both offenders and victims)? As Felson and Clarke (1998) explain, "no single cause of crime is sufficient to guarantee its occurrence; yet opportunity above all others is necessary and therefore has as much or more claim to being a 'root cause'" (p.1).

Empirical findings consistently demonstrate the following patterns. The norm is compliance rather than offending, and even highly motivated offenders only choose to offend when they think the opportunity is right (Eck, 2015). A very large proportion of crime is committed by very few criminals (Martinez et al., 2017)

and committed against a small group of highly victimised people/places (SooHyun et al., 2017). With these patterns in mind, Felson and Clarke (1998) coined the phrase "opportunity makes the thief", leading them to propose the ten principles of crime opportunity.[1] The essential contribution of this opportunity-focused perspective relates to the active, context-specific choice that is made about offending. As Eck and Eck (2012) explain, if offending propensity is stable (and high), the decision to offend still cannot be made without an appropriate opportunity. Alternatively, if offending propensity is variable, the immediate context can simultaneously present offending opportunities and temptations for offending. Either way, the immediate situation influences the risk of crime.

This opportunity-based explanation for crime is underpinned by two compatible theories: the rational choice perspective (Clarke & Cornish, 1985) and routine activity theory (Cohen & Felson, 1979). For a comprehensive, contemporary review of the rational choice perspective, readers should consult Cornish and Clarke (2017). In brief, this perspective assumes that offenders make the 'best' choices available to them in the specific time and place. These are 'bounded' rational choices because they are constrained by offender-related factors, such as cognitive capacity and the incompleteness of the information they are drawing from, and context-related factors, such as limited time to choose and the immediate perceived ratios of cost (risk/effort) and benefits (rewards) for their choices. The immediacy of the cognitive calculus weighing risk-reward-effort is considered to have a much greater influence on offending choices, in comparison to longer-term consequences if punished. Importantly, the rational choice perspective considers anyone could offend, provided they encountered an offending opportunity that provided a boundedly rational risk-reward-effort ratio that made sense to them. Furthermore, this perspective considers crime events are influenced by factors that occur before, during, and after the crime (like a script in a play, Leclerc, 2017), with offending decisions varying at each stage of the script (more about this, below).

The second framework, routine activity theory, was first proposed by Cohen and Felson (1979). This theory helps explain the non-random distribution of crime across time and space, by proposing that the minimum requirements for a crime to occur are the temporal and spatial convergence of three elements: a likely offender (anyone with the motivation and capacity to commit a crime), a suitable target/victim (deemed vulnerable and accessible by the likely offender), and the absence of a capable guardian (able to detect and act when a crime might be occurring). Routine activity theory forms the basis of the problem-analysis triangle (Eck, 2003), which

[1] In brief, from Felson and Clarke (1998). *Opportunity makes the thief: practical theory for crime prevention – Police Research Series, Paper 98.*: (1) opportunities play a role in causing all crime; (2) crime opportunities are highly specific; (3) crime opportunities are concentrated in time and space; (4) crime opportunities depend on every day movements; (5) one crime produces another; (6) some products offer more tempting crime opportunities; (7) social and technological changes produce new crime opportunities; (8) opportunities for crime can be reduced; (9) reducing opportunities does not usually displace crime; and (10) focused opportunity reduction can produce wider declines in crime .

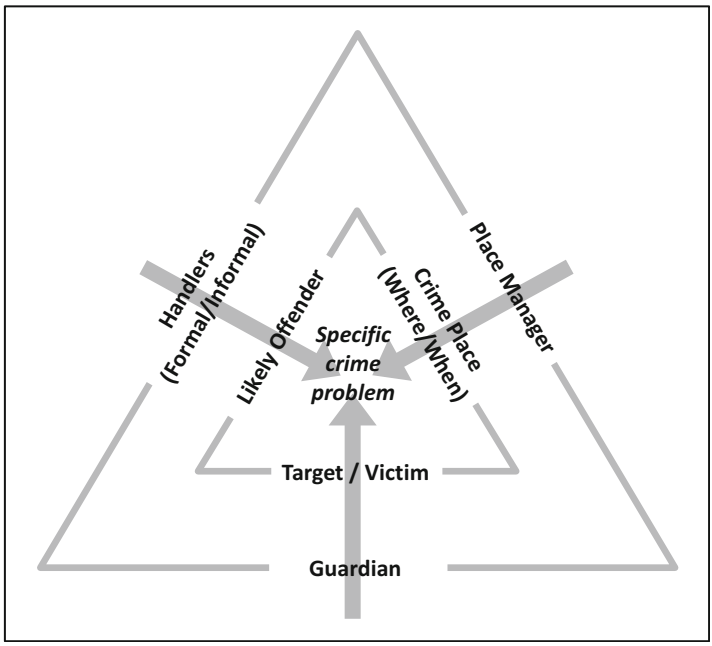

Fig. 2.1 The problem analysis triangle. (Based on versions published in Clarke & Eck, 2005; Eck, 2003)

demonstrates the potential for 'controllers' to operate on each side of this triangle to reduce the opportunity for the crime problem to occur (see Fig. 2.1, with controllers represented as handlers, guardians, and place managers). As Eck (2003, p. 89) explains,

> Controllers are at the heart of any useful theory of problems. Or to put it more precisely, problems are created when offenders and targets repeatedly come together, and controllers fail to act. It is the breakdown of controllers that is the most important feature of this explanation, as offenders and targets often come together without any problem being created. (p. 89)

The potential to influence the immediate risk-reward-effort of academic misconduct and the breakdown of controllers within the intersection of offenders-targets-places will all be revisited later in this chapter (with some POP-related examples focused on academic misconduct problems). For now, however, it is important to briefly summarise the take-home messages from this section. Crime is always non-randomly distributed across time, place, offenders, and targets. Opportunity-based theories that focus on crime (rather than criminality) are best-placed to explain these non-random patterns. Through the insight provided by these theories, the non-randomness of these problems is very useful, because prevention efforts can be targeted and they can focus on removing existing opportunities for crime. The flow-on effect of this is that crime is not inevitable. With this summary in mind, the next section explains the development of the POP framework for targeted,

partnership-based prevention strategies that can be highly effective and sustainable. Most importantly, these positive-POP results are dependent on the removal of crime opportunities, rather than requiring increased detection, apprehension, and prosecution. In a crime context, this has benefits for society, as it results in less offending/offenders, fewer victims, and less costs to the criminal justice system. Shifting contexts (and deviance) to academic misconduct, the flow-on effects of successful POP-style implementation within a tertiary setting would be fewer students engaging in misconduct, those who do commit misconduct doing so less often/less seriously, fewer assessment items being targeted for misconduct, and reduced demand on academic misconduct processes within universities: all without depending on catching more people doing the wrong thing. Next, the POP-framework is outlined to explain why this approach is different from traditional policing approaches and how it works. In the section after that, the POP is translated for academic misconduct purposes.

A Framework for Preventing Non-Random, Opportunity-Based Crime Problems: Problem-Oriented Policing

During consecutive decades of rapidly increasing crime rates in the United States, Goldstein (1979) released, "Improving policing: a problem-oriented approach." Goldstein was motivated by finding new and better ways to control crime and was motivated by seeking to change the conditions that lead to crime. POP was proposed as a framework for improving police capacity to prevent crime and meet community expectations. As an alternative to the policing strategies being emphasized in the late 1970s (i.e., increased staffing, use of undercover operatives, and increasing agency efficiency), Goldstein's vision for POP advocated for police to develop innovative responses to discrete types of policing problems, with these novel approaches grounded in analysis, preventative in focus, not exclusively dependent on the criminal justice system, and thoroughly evaluated to see if they worked. Goldstein explained that this shift in focus would require a fundamental rethinking of what the basic unit of police work should be: moving away from a crime/case/call for service/incident, and moving towards 'problems': a term that Clarke and Eck (2005, p. 40) operationalised as a "recurring set of related harmful events in a community that members of the public expect the police to address." (p 40).

Repeatedly returning to the same place or dealing with the same problems caused by the same offenders and unable to deal with call volumes has a detrimental impact on police morale (Clarke & Eck, 2005). Goldstein's (1979) alternative was to propose a four-stage approach: (1) scan existing data to look for meaningful patterns of related problems that police were dealing with; (2) analyse these problems, looking for causes (including acknowledging the failures of what is already being done to respond); (3) develop new, creative ways to respond to these problems; and

(4) assess the impact of the new interventions: were they implemented and did they work (with a negative response to either/both of these triggering another problem-focused attempt). This POP implementation process has been termed the SARA model: **s**canning, **a**nalysis, **r**esponse, and **a**ssessment (Clarke & Eck, 2005).

The following section will translate the POP/SARA framework to the academic integrity context. Before that, however, it is important to emphasize some caveats, all of which are expanded by Clarke and Eck (2005). POP is typically used when 'traditional' responses have failed. As a result, it is unreasonable to expect quick and complete fixes. Committing to the SARA process will rarely be linear and will often involve multiple feedback loops through the four stages. For example, detailed scanning and analysis may require a revisiting of the problem-focus. This, in turn, may lead to creative searches for additional data to use for future analysis. Post-intervention, failure to influence the problem may required restarting the whole process, revisiting the selected responses, or focusing on implementation issues. Those seeking to utilise this framework must commit to all four SARA steps. Resist jumping directly to responding without clarifying and understanding the problem, as this will likely lead to suboptimal, ineffective solutions and wasted time/resources. Also avoid discarding the approach if it does not work the first time. Remember that what is already being done is failing and this framework is a better alternative for finding effective, sustainable solutions moving forwards, relative to business as usual.

Adapting Problem-Oriented Policing to Academic Integrity

In exploring options for prevention and the importance of context/opportunity, here is a brief list of some important academic misconduct characteristics to remember. First, based on population prevalence estimates, engaging in academic misconduct to some extent is 'normal' (Curtis & Vardanega, 2016), which is consistent with the patterns for deviance more broadly. Second, the volume of misconduct tends towards the minor end of the scale, such as incorrect paraphrasing as opposed to submitting contract cheated assignments (Bretag et al., 2019). Third, students cheat more on some types of assessments than others (Bretag et al., 2019). Forth, easy opportunities to cheat increase the likelihood of students engaging in academic misconduct (Hodgkinson et al., 2016). Further to this, the specific student context matters, with research demonstrating cross-cultural differences (e.g., Yukhymenko-Lescroart, 2014), variations between academic disciplines (Ottie Arhin & Jones, 2009), and differences between years of study (e.g., Khalid, 2015). There are also many methods by which students can engage in academic misconduct, some more active than others, and with varying degrees to which individuals can rationalise and neutralise their behaviours (Baird & Clare, 2017; Hodgkinson et al., 2016; Rundle et al., 2019, 2020). In addition to this, each academic institution presents its own, unique academic integrity context, with bespoke policies, guidelines, reporting processes, investigation processes, penalties, and appeals processes. Furthermore,

universities vary in the extent to which they train and support students to act with academic integrity, provide additional assistance to struggling students, integrate/support on-shore international students from diverse language backgrounds, and equip and train academic staff to produce high-quality, low-risk assessments. With these points in mind, this section will expand the context for each of the SARA stages and demonstrate the potential utility of this approach for responding to academic misconduct in a tertiary context.

Scanning: Being Specific About the Problem

The assumption that disrupting opportunity structures is the best starting point for preventing problems does not imply that there is a single, universal opportunity that applies to all problems: in fact, exactly the opposite (Felson & Clarke, 1998). Each type of problem will be the consequence of a very specific interaction of offender-place-target (relating to the many variables discussed in the previous paragraph). As a result, the starting point for a problem-focused intervention is to be as specific as possible about the unique type of problem that is being targeted. At its highest level, academic misconduct captures a broad range of misleading/deceptive behaviours intended to allow individuals to pass-off academic output as independent and original, when the work was undertaken by a third-party (Hodgkinson et al., 2016). Drilling down within this meta-category, there have been some recent attempts to classfiy meaningful types of academic integrity issues. Hodgkinson et al. (2016) identified three broad categories of academic dishonesty: plagiarism, cheating on tests, and collusion, each with different problem characteristics and involving different offending strategies. Lim and See (2001) asked students to consider 21 types of academic misconduct, and (looking within 'contract cheating', specifically) Bretag et al. (2019) asked respondents to consider contract cheating with respect to 13 different assessment tasks. Furthermore, the author's university's current misconduct reporting system identifies 23 behavioural variants, distributed across the categories of collusion, cheating, fabrication, falsification, and plagiarism.

When seeking to apply a POP framework to an academic misconduct problem, high-level misconduct category labels like 'plagiarism' are too broad to be useful. Looking back to the original Goldstein guidelines for specifying a POP-problem (Clarke & Eck, 2005), an academic integrity problem could be defined as a recurring set of related harmful integrity events in a tertiary setting that members of the university community expect the university administration to address. In their problem solving guide, Clarke and Eck (2005) outline the CHEERS test for defining a problem. CHEERS asks six questions: (1) who is the **c**ommunity affected by the problem; (2) what **h**arms are created by the problem; (3) what are the **e**xpectations for the response; (4) what types of **e**vent contribute to the problem; (5) how often do these events **r**ecurr; and (6) how are the events **s**imilar? The key to developing an optimal POP-intervention is being as specific as possible about the problem being targeted, and these questions assist in enhancing specificity.

To work through an example, within the high-level misconduct label of 'falsification', there could be (at least) the following divisions of behaviours: (a) making up records of attendance, participation, or completion, (b) citing non-existent sources, and (c) falsifying information/documents to gain an academic advantage. Within all of these, further meaningful distinctions will exist relating to the types of assessments being targeted, the process for completing the misconduct, and the reasons for the behaviour. The falsification of medical records for extensions on assessments presents a different problem than fabricating academic records to gain entry to postgraduate courses.[2] The CHEERS test will be useful in helping define the clearest POP-problem possible, which then facilitates the assessment phase of the SARA process (outlined in the next section).

Analysing the Academic Integrity Problem

With a clear focus on a specific academic integrity POP-style problem, the next step of the SARA process is to undertake comprehensive problem analysis. Clarke and Eck (2005) explain that this is when the problem is researched (has anyone else dealt with a similar problem?), hypotheses are formulated and tested, and novel data sources are identified. It is useful to consider how the problem is occurring. Within the crime prevention literature, practitioners are encouraged to adopt a 'think thief' perspective (Ekblom, 1995: if you were going to commit the offence, contemplate how you would do it, what would deter/encourage you about the current opportunity context, and what would change the opportunity context), with the same being possible in an integrity context by 'thinking cheat'. Attempting to place oneself in the shoes of the academic misconduct perpetrator can provide insight into how a particular type of misconduct is undertaken. For example, returning to the example of a student who wants to submit falsified medical documentation to gain an unjustified extension, this person must complete a process (including, but not limited to): (1) interacting with a third-party to obtain the medical documentation; (2) submitting the internal documentation to request the extension; and (3) not getting caught for falsifying the documentation. 'Thinking thief' exposes the necessary sequence of events required to complete this process (the before, during, and after crime 'script' required to successfully complete the misconduct, see Leclerc, 2017, for a comprehensive discussion of this framework within a crime context). Connected to this is the Haddon Matrix for injury prevention (Haddon Jr, 1980), which deconstructs problem contexts into three time periods (before, during, and after the problem event) and examines the role of three different factors in the problem (human involvement, equipment involved, and the physical/social

[2] Interested readers are encouraged to review: Eaton, Carmichael, & Pethrick (2023). *Fake Degrees and Fraudulent Credentials in Higher Education* (1 ed.). Springer. https://doi.org/10.1007/978-3-031-21796-8

environment). As is explained in the next section, these event stages can create opportunity-reducing interventions that can make the offending less rational (increasing risk/effort, reducing reward/provocations, and/or removing excuses), identify controller failures that need to be ameliorated, and expose equipment/processes that is facilitating the problem occurring in its current context.

When thinking about the metrics available to give insight into current levels of a specific problem, it is important to remember that there is no single correct way to measure any form of deviance. Within an academic integrity context, some recent work focused on contract cheating details the range of measures available to those interested in measuring the size of these problems (Clare & Rundle, 2022; Curtis & Clare, 2023). Depending on the specific POP problem, a wide variety of data types will exist, ranging from administrative data relating to integrity reports/findings, talking to whistleblowers, reviewing self-report offending survey respones, monitoring the extent to which the institution's intellectual property is being shared on file-sharing sites, and looking for unusual patterns in student performances within the same unit and across different assessment types (e.g., Clare et al., 2017).

When concluding the assessment stage of SARA it is important to be able to answer some problem-specific questions (Clarke & Eck, 2005). (1) What happened? Including thinking through the crime script involved and the breakdown of the Haddon Matrix components. (2) Where did it happen? Was the problem online, on-campus, a mixture of both, are there specific sections of the University that always/never experience this problem, etc.? (3) When did it happen? A contract cheated essay must be requested, purchased, and then submitted for assessment, involving a number of different times. (4) Who was involved? How many offenders, how many assessment items, how many integrity breaches, was there a person who failed to intervene, did anyone else witness the misconduct in action? (5) Why did the people involved act the way they did? What contextual factors influenced the bounded rationality of the offender and, when there were third-parties involved, why did they behave in the way that they did? (6) How did the perpetrator carry out the misconduct? Each instance of misconduct involves steps between initiation and completion, with perpetrators making decisions throughout the process. These answers will help the implementation of a novel response to the problem, which can be developed by utilising the strategies discussed in the next section.

Responding to the Problem in a Novel, Targeted Way

This section describes some complementary strategic approaches for developing new ways to respond to specific misconduct problems. First, the 25 techniques of situational crime prevention (SCP) are overviewed. Next, the potential to integrate SCP with the problem-analysis triangle is discussed, along with the benefits of seeking to work in partnerships and to share responsibility for prevention with partners. After this, the benefits of integrating SCP and the problem-analysis triangle with the crime script/Haddon matrix messages are explained.

Motivated by manipulating the opportunities that enable crime, SCP (Clarke, 2017) has been highly successful in preventing crime since the early 1980s. This framework has expanded over time to incorporate 25 techniques that are grouped into five main mechanisms: increasing the risk and effort involved, reducing the reward and provocations for crime, and removing the excuses for doing the wrong thing (see Table 2.1 from Clarke, 2017, for a comprehensive discussion of this framework, and https://popcenter.asu.edu/ for a collection of successful case studies across a wide range of crime contexts). The intent of these techniques is to throw all appropriate, feasible interventions at a problem in parallel, with Clarke (2017) explaining, "[SCP] is more effective when it adopts a package of measures, each of which is directed to a particular point of the process of committing the crime." (p. 292).

There have been four attempts to demonstrate the utility of the SCP framework to preventing academic misconduct. First, Hodgkinson et al. (2016) proposed hypothetical ways to use the SCP techniques to address plagiarism, cheating on tests, and collusion. Next, in an applied context and focused on preventing a range of contract cheating behaviours, Baird and Clare (2017) demonstrated the utility of the SCP framework for removing the opportunity for academic misconduct in a business capstone class. Most recently, Clare (2022) outlined how SCP could be used to reduce a range of behaviours that constitute contract cheating and artificial intelligence facilitated academic misconduct (Birks & Clare, 2023). It is beyond the scope of this chapter to reproduce all the summary SCP tables generated across these four attempts, so interested readers are encouraged to review these papers independently.

To provide an example for current readers and to build on the falsification of medical certificates example, Table 2.2 attempts to populate the relevant techniques of the SCP framework. As is clear from this example, specific intervention strategies can be located within more than one technique-mechanism, and not all of the techniques are relevant/useful for addressing this specific misconduct problem. Both of these outcomes are unproblematic from a SCP perspective, as these techniques and mechanisms are not mutually exclusive, and practitioners are not required to use all of them every time they want to respond to a problem.

When utilising these SCP techniques to reduce academic misconduct, practitioners are encouraged to 'work the triangles' and seek to shift and share the prevention responsibility. Clarke and Eck (2005) suggest manipulating at least two sides of the problem triangle in as many ways as possible. This would mean operating in parallel to handle likely offenders (high-frequency misconduct perpetrators) better, provide improved management of high-risk assessment items, and seek to reduce repeat 'victimisation' (misconduct targeted at the same or very similar assessment items). Keeping in mind what is known about the reasons why students do not cheat (Rundle et al., 2019, 2020, 2023), the SCP framework can be used to reduce the 'rationality' of engaging in academic misconduct by doing things like reducing provocations for misconduct (e.g., increasing student supports and using incompletion of minor, low-stakes assessments as a risk indicator that triggers internal University-led support mechanisms) or increasing the effort involved with undertaking misconduct (e.g., working with staff members to help reduce suitability

Table 2.1 The 25 techniques of SCP, with crime prevention examples of each technique. (From Clarke, 2017)

Increase effort	Increase risk	Reduce rewards	Reduce provocations	Remove excuses
1. Target harden Steering column locks and ignition immobilizers Anti-robbery screens Tamper-proof packaging	6. Extend guardianship Go out in group at night Leave signs of occupancy Carry mobile phone	11. Conceal targets Off-street parking Gender-neutral phone directories Unmarked armoured trucks	16. Reduce frustrations and stress Efficient lines Polite service Expanded seating Soothing music/ muted lights	21. Set rules Rental agreements Harassment codes Hotel registration
2. Control access to facilities Entry phones Electronic card access Baggage screening	7. Assist natural surveillance Improved street lighting Support whistle-blowers	12. Remove targets Removable car radios Women's shelters Pre-paid cards for pay phones	17. Avoid disputes Separate seating for rival soccer fans Reduce crowing in bars Fixed cab fares	22. Post instructions 'No parking' 'Private property' 'Total fire ban'
3. Screen exits Tickets needed for exit Export documents Electronic merchandise tags	8. Reduce anonymity Taxi driver IDs 'How's my driving?' Decals School uniforms	13. Identify property Property marking Vehicle licensing and parts marking Cattle branding	18. Reduce temptation and arousal Controls on violent pornography Prohibit racial slurs	23. Alert conscience Roadside speed display boards Signatures for customs declarations 'Shoplifting is stealing'
4. Deflect offenders Street closures Separate bathrooms for women Disperse pubs	9. Use place managers CCTV for double-deck busses Two clerks for convenience stores Reward vigilance	14. Disrupt markets Monitor pawn shops Controls on classified ads License street vendors	19. Neutralise peer pressure 'Idiots drink and drive' 'It's OK to say no' Disperse school troublemakers	24. Assist compliance Easy library check out Public lavatories Litter receptacles
5. Control tools/weapons 'Smart' guns Restrict spray paint sales to juveniles Toughened beer glasses	10. Strengthen formal surveillance Red light cameras Burglar alarms Security guards	15. Deny benefits Ink merchandise tags Graffiti cleaning Disabling stolen mobile phones	20. Discourage imitation Rapid repair of vandalism Censor details of modus operandi	25. Control drugs and alcohol Server intervention programs Alcohol-free events

of previously 'hot' assessments, thus reducing risk of revictimization). The university sector should also look for partnership opportunities with other interested parties, such as student associates, tertiary labour unions, the private sector, and governments/tertiary funding bodies. Crime prevention research has demonstrated the most sustainable interventions are those that move beyond a focus on apprehension/punishment and operate in partnership with non-crime agencies (Eck, 2015).

Assessment developers are also encouraged to build on the advice from the crime scripts approach and the Haddon matrix framework (discussed, above). When implementing SCP and working the triangles, remember it is possible to intervene to reduce the opportunity for misconduct (a) before it occurs (e.g., blocking access to known cheating sites or banning medical certificates from known problem providers), (b) during the misconduct decision-making (e.g., remote proctoring of online tests and automated integrity pop-ups when submitting medical certificates online), and (c) after the misconduct occurs (e.g., whistle blowing and monitoring of repeat users of medical certificates across subjects during their course of study).

Finally, those seeking to reduce the opportunity for specific types of academic misconduct using the POP approach can be confident that designing out opportunities to cheat does not mean that compliance with rules gets harder for students who are already doing the right thing. In addition, prevention gains can be achieved without relying on detection, apprehension, and prosecution. This is particularly important in a contemporary misconduct context, at a time of artificial intelligence and large language models, which mean that there is potential for students to submit original (but unacceptable) responses to assessments that would not be detected by text matching software (see Birks & Clare, 2023, for a discussion of this issue with respect to prevention). The next section concludes the translation of the POP framework for the academic integrity context by summarising the main essential elements of the assessment stage of the SARA process.

Assessing the Effectiveness of the Intervention: What Does Success Look Like?

Clarke and Eck (2005) explain that the final stage of the SARA process is focused on answering two main questions: (1) did the problem decline, and (2) did the intervention cause the decline? In its simplest form, answering these questions requires at least two types of evaluation. The first, a *process* evaluation, is focused on determining if the intervention was implemented as planned. The second, an *impact* evaluation, focuses on the outcomes of the intervention. To return to the example of falsifying medical documents, if the range of strategies proposed in Table 2.2 were intended to be implemented, the process evaluation would monitor to see how well this occurred. An essential element to undertake the impact evaluation is clarity about what success would look like (e.g., fewer people engaging in the problem behaviour, less serious cases of the problem behaviour, less assessments being

Table 2.2 Potential strategies for responding to falsifying medical documents using the 25 techniques of SCP. (Adapted from Clarke, 2017)

Increase effort	Increase risk	Reduce rewards	Reduce provocations	Remove excuses
1. Target harden	6. Extend guardianship	11. Conceal targets	16. Reduce frustrations and stress Provide additional training and guidance, including optional extra practice of assessments Scaffolding – Building skills and reducing the need to cheat	21. Set rules University regulations, departmental guidelines, and unit/course specific guidelines prohibiting fraudulent medical certificates
2. Control access to facilities	7. Assist natural surveillance Facilitate anonymous peer feedback (whistle blowing)	12. Remove targets	17. Avoid disputes Distribute academic misconduct information	22. Post instructions University regulations, departmental guidelines, and unit/course specific guidelines prohibiting fraudulent medical certificates
3. Screen exits	8. Reduce anonymity	13. Identify property	18. Reduce temptation and arousal Distribute academic misconduct information Scaffolding – Building skills and reducing the need to cheat	23. Alert conscience 'Fake medical certificates breach misconduct policy' signage Online pop-ups requiring authenticity declarations when lodging forms
4. Deflect offenders Implement routine monitoring of high-frequency users of medical extensions	9. Use place managers	14. Disrupt markets	19. Neutralise peer pressure 'Fake medical certificates make our University sick' signage Facilitate anonymous peer feedback (whistle blowing)	24. Assist compliance
5. Control tools/weapons Pattern matching software used on medical certificates Ban use of certificates from known problem medical practices	10. Strengthen formal surveillance Implement routine monitoring of high-frequency users of medical extensions	15. Deny benefits Enforce misconduct procedures whenever possible Automatic zero for falsifying medical documents	20. Discourage imitation Enforce misconduct procedures whenever possible Publicise enforcement of misconduct procedures	25. Control drugs and alcohol

targeted for the problem behaviour, longer time intervals between the problem behaviour, etc.). This clarity influences what the baseline for the problem is prior to intervention and also determines what needs to be measured before, during, and after the targeted changes are implemented. Remembering the various, imperfect ways of measuring academic misconduct, optimal strategies will likely consider triangulating a range of different metrics to gauge the extent of specific problems over time. Eck (2011) and Clarke and Eck (2005) provided detailed summaries for non-researchers about the types of evaluations that could be designed to assess the outcomes of problem-focused interventions. Randomised controlled trials are excellent research designs for testing cause-and-effect and also controlling for bias, however, when addressing prevention-focused applied interventions a more realist evaluation perspective (as discussed by Tilley & Burrows, 2010) may be more appropriate.

Some assessment lessons from other prevention contexts are important to note (Clarke & Eck, 2005). First, be clear that you will not remove all incidents, but you can operate in targeted ways to minimise opportunity. Second, take heart from the general lack of displacement of crime problems that have been observed in other studies, and take further heart from the potential diffusion of benefits that may mean the positive impact of your intervention reaches further than you anticipated (Johnson et al., 2014). Third, understand that POP is process that requires ongoing commitment. The latest technology (i.e., generative large language models) will soon be replaced and new facilitators and problem types will emerge. You may also experience process and/or impact failures, meaning you must learn from what you did, adjust your response, and try again.

Final Thoughts

By way of a final thought about academic misconduct in the modern university context, it is worth revisiting a message from Goldstein (1979), who commences his argument for POP with a quote from an UK newspaper article from 1977 entitled, "Get rid of the people, and the system runs fine." This quote outlines a situation where bus drivers speed past queues of people at bus stops, smiling and waving as they pass, with this behaviour justified by the fact that it is impossible for the drivers to keep to the bus timetable if they have to stop for passengers. Goldstein (1979) uses this example to caution, "All bureaucracies risk becoming so preoccupied with running their organizations and getting so involved in their methods of operating that they lose sight of the primary purposes for which they were created. The police seem unusually susceptible to this phenomenon." (pp. 236–237). This message from over 40 years ago rings true for the tertiary education sector, today. While this chapter is advocating for an alternative approach to reducing the frequency of academic misconduct, it is important to revisit the origins of the problem-oriented approach that is being translated. As explained, above, with the examples relating to responding to academic misconduct problems, opportunities can be reduced by

manipulating risk-reward-effort-provocations-excuses, by making alterations before, during, and after misconduct may occur, and by looking at targets and places, in addition to likely offenders. In addition to taking appropriate and sensible steps with respect to target hardening and policy, universities must also hold a mirror up to the extent to which they are legitimately engaging with students to provide necessary and appropriate supports for students and staff. Goldstein (1979) describes a "'means over ends' syndrome" (p. 238) that took hold of policing in the 1970s. It is important for universities to avoid similar situations so that the academics involved with education do not have to drive the metaphorical assessment busses past the problems.

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Chapter 3
Moral Frameworks for Approaching Academic Integrity

Frances Gia Phung An

Abstract Academic misconduct undermines the university's role of producing prosocial, responsible citizens, and predicts professional forms of misconduct such as fraud and negligence about safety protocols. Moral norms play a large role in preventing academic integrity breaches by diminishing the temptation to engage in academic misconduct and create norms of honesty. Despite the importance of moral behaviour and culture to academic integrity and its consequences, empirical studies on morality in academic culture have not drawn extensively from the moral psychology literature. This chapters presents two moral psychology frameworks that could drive systematic investigations into academic misconduct: the cognitively based dual-process model and emotionally based moral foundations theory.

Keywords Academic misconduct · Moral foundations theory · Dual-process model · Moral reasoning · Ethical dilemma

Introduction

Academic misconduct refers to forms of cheating that involve giving or receiving unauthorised assistance or credit for others' work. It includes relatively minor and unintentional breaches (e.g., incorrect, inappropriate or absent citation), breaking rules during exams (e.g., looking over at another student's answers, bringing unauthorised notes) and intentional fabrication of assignments (e.g., buying essays from essay mills, using and contributing material to file-sharing websites). According to Ampuni et al. (2020), the International Centre for Academic Integrity (ICAC) revealed 98.78% of students admitted to engaging in some form of academic misconduct. While some researchers suggest that ethically oriented professions such as nurses engage in cheating less than other professions, some research suggests that their prevalence of cheating is roughly equal to other schools (Bultas et al., 2017;

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Lynch et al., 2021). At the same time, other studies suggest that engineering and business undergraduates are reported to engage in academic misconduct more than undergraduates in other schools (Freire, 2014; Tabsh et al., 2017).

Two main consequences of academic misconduct arise for both higher education and the wider society. First, universities cannot ensure that graduates will enter the workforce with sufficient expertise for their duties. Researchers in psychology, nursing, and aviation academia have been concerned about the way academic misconduct produces graduates who fail competency requirements for their job (Asim et al., 2015; Bultas et al., 2017; Keller et al., 2012; Lynch et al., 2021). Secondly, academic misconduct undermines the university's mission of developing responsible, prosocial citizens. Those who engage in academic misconduct are more likely to engage in, or at least accept, other professional misbehaviour such as fraudulent reporting and negligent practices (Macale et al., 2017). Consequently, traditionally trusted professions such as nursing and the degrees graduates earn lose value. For example, Liao et al. (2017) found in a survey of Chinese biomedical researchers that participants believed 40.1% of published scientific articles involved some form of academic misconduct. Farisi (2013) discusses the long-term cultural problems of academic misconduct as a betrayal of truth and knowledge accumulation. Moreover, an erosion of trust among the professional class increases the overall level of corruption in society more than street crime (Sutherland, 1983).

Despite the importance of ethical norms in reducing academic misconduct, the application of formal frameworks in moral psychology to empirical studies on academic integrity are somewhat limited. The purpose of the next section is to demonstrate why focusing on the ethical dimension of academic misconduct will be the most efficient and long-term assurance of enhancing academic integrity and post-graduation professional behaviour. To do this, I evaluate the main approaches to the reduction of academic misconduct: policing, prevention, and ethics.

Approaches to Academic Misconduct Reduction

Farisi (2013) identified three umbrella concepts that capture strategies for dealing with academic misconduct: policing, prevention, and ethics. Below, I explore the contributions and blind spots that each focus has had on empirical investigations of academic integrity.

Policing

Policing focuses on the detection and punishment of misbehaviour. In the academic context, detection often takes the form of text-matching software (Ison & Szathmary, 2016). A punishment for being caught may involve a range of punishments that can

span from a warning or a loss of marks to exclusion from a course or institution. In rare instances punishments may include recording the misconduct on a student's academic transcript, which could affect their employability (Farisi, 2013).

Policing is an inefficient focus on academic behaviour control due to difficulties attached to both detection and punishment. First, detection is difficult because assessment tasks vary widely across disciplines. For example, Franclinton et al. (2020) discuss that in engineering, many computers outside designated labs are not equipped with the programs or power required for engineering assessment tasks. For common assignment formats like essays, Meuschke and Gipp (2013) found that text-matching software had difficulties picking up insidious forms of plagiarism such as translations. Those who could help police academic misconduct (e.g., other students, teaching staff) are often confused about what constitutes academic misconduct or are too overworked to take on the reporting process (de Maio & Dixon, 2022; Lynch et al., 2021; Waltzer et al., 2022).

Even if administrators could optimise the detection process, determining a proportionate and meaningful punishment is challenging. For example, if the bar for reporting an academic misconduct notification on the student's academic transcript is too high, many minor academic offences that undermine professional ethics later may be overlooked. However, if the bar for receiving a blackmark is too low, the punishment will lose social value and become meaningless. Therefore, improvements in policing strategies may only be a fraction of the solution in upholding academic integrity.

Prevention

Prevention strategies include promoting attitudes and norms against misconduct as well as blocking potential avenues of misconduct from the start (Farisi, 2013). This may involve blocking websites that facilitate contract cheating and identity verification before exams. One prevention strategy based on criminology is the use of situational crime prevention techniques to prevent contract cheating (Clare, 2022). Situational crime prevention focuses on manipulating perceived risks, rewards, effort, provocations and excuses: increasing risks and efforts while decreasing rewards, provocations and excuses attached to misconduct will reduce its likelihood (Eck & Eck, 2012).

The focus on immediate circumstances differentiates situational crime prevention from many other theories that root crime in biology, early experiences and/or socialisation (Clarke & Mayhew, 1988). Such an immediate focus is advantageous because it affords more control to educators, enforcement officers and university administrators who may not have the time or resources to understand students on a deep level. In one case study, Baird and Clare (2017) adjusted aspects of a business unit assignment according to techniques from situational crime prevention. Among several tactics that were drawn from within the situational crime prevention

framework, they varied the assignment content between classes (to reduce chances of collusion) and gave students practice time (to reduce the provocation of stress or desperation). These assignment adjustments reduced instances of contract cheating.

While prevention strategies have further-reaching benefits than policing, prevention strategies may also have issues keeping up with the variable nature of assignments across disciplines and historical climate. For example, Garg and Goel (2022) discuss the effects of the COVID-19 pandemic on the proliferation of online-based cheating methods to complement the academic environment's shift to online learning to slow the virus's spread. Farisi (2013) foresaw some of the COVID-related issues when considering the difficulty of enforcing academic rules for distance education formats.

Even when a workable prevention strategy emerges, it may be unethical and degrade norms of trust between students and their institution. For example, during COVID, home exams were used and some universities significantly expanded the use of remote proctoring, requiring students to conduct a live video-scan of their environment before starting the exam to ensure no student had unfair aids (e.g., notes stuck to the wall). While this could stop students trying to obtain an unfair advantage, some argued that room scans violated students' privacy (Camp, 2022). Given the difficulty, and at times unethical nature of prevention strategies, Farisi (2013) considered the role of ethics in promoting academic integrity values and social norms that support virtuous character.

Ethics

The ethical dimension of academic integrity refers to developing norms about honesty and understanding the importance of university environments for training prosocial citizens. Addressing the ethical dimension may involve requirements for students to complete ethics modules or educational sessions about what constitutes academic cheating (Asim et al., 2015).

Tackling the ethical dimensions of academic behaviour is arguably the most enduring strategy for enhancing integrity for two reasons. First, moral character is the most important aspect of person perception. Goodwin (2015) found that people's judgements of moral character were more important in shaping their opinions about others compared to judgements of sociability or competence. Second, Tappin and McKay (2017) found that one's sense of moral righteousness is resistant to change in the face of evidence and is stable over time compared to other aspects of self. The profound and long-term effects of developing a culture of integrity and moral duty reduce the need for administrators to micro-manage individuals and academic assessment situations. Next, I evaluate different moral reasoning frameworks that could be used in academic contexts.

Evaluation of Different Ethical Frameworks for Usage in an Academic Context

Although there has been some research on the ethical dimensions of academic behaviour, the categorisation of individual and situational variables has not been systematically considered. Most frameworks used follow cognitive-developmental principles that emphasise internal, individual-level processes. These do not sufficiently capture the effects of situational variables (Wisesa et al., 2019). The cognitive-developmental models I briefly discuss are *Kohlberg's theory of moral development, the academic integrity model,* and *academic integrity responsibility* (Ashford, 2021; Miller et al., 2011; Wisesa et al., 2019). Then, this chapter covers the way two moral psychological approaches conceptualise the emotional vs. cognitive and situational vs. individual factors as applied to academic integrity that the cognitive-developmental models propose but in a more streamlined way. They are the rationalistic *dual-process approach* and intuitive *moral foundations theory*.

Cognitive-Developmental Models: Kohlberg's Theory of Moral Development, the Academic Integrity Model, and Academic Integrity Responsibility

Kohlberg's (1973) theory suggests that moral development occurs in three overarching stages: (1) pre-conventional, where the individual is most concerned with self-interest and punishment avoidance, (2) conventional, which involves a focus on conforming to social norms and obeying authority and (3) post-conventional, where individuals abide by their own conscience and ethical ideas. Importantly, however, as Kohlberg's (1973) theory focused on moral reasoning, which does not perfectly predict behaviour. Wisesa et al. (2019) used Kohlberg's (1973) theory to categorise qualitative responses about reasons for cheating or not cheating. They found that students who gave post-conventional responses for academic honesty were less likely to report cheating in a separate questionnaire about the prevalence and engagement in academic misconduct compared to students lower in Kohlberg's moral developmental stages. Kohlberg's theory has been used in other academic behaviour contexts. Kiser et al. (2009) for example, used Kohlberg's theory of moral development to understand undergraduate students' responses to moral dilemmas within the realm of information technology.

According to Ashford (2021), the *academic integrity model* suggests that the path to ethical behaviour requires four steps: (1) moral awareness, where administrators highlight to students the importance of academic integrity on thinking, learning and assessment expectations, (2) moral justification, which considers the purpose and benefits of ethical behaviour, (3) moral intent, which involves foresight of potential

hindrances to ethical behaviour due to psychological distancing, and (4) the execution of a moral action. Ashford (2021) broke down these steps in the context of helping students understand and take responsibility for the effect of apps and technology on their learning, a characteristic he called *socio-techno responsibility.*

Academic integrity responsibility suggests two main themes drive people's chances of engaging in misconduct: ownership of integrity and the idea of ethical culture being a collective responsibility (Miller et al., 2011). Miller et al. (2011) found that students who cited fear of punishment as a primary reason for following rules were more likely to cheat than students who reported not cheating due to personal character. Rundle et al. (2019) supported Miller et al.'s (2011) finding in their investigation of students' reasons for not cheating, where a motivation for learning, self-control and desire to assert one's competence were primary reasons.

Cognitive-developmental models attempt to trace the decision-making processes an individual may undertake before choosing ethical or unethical behaviour. However, as Wisesa et al. (2019) noted, they are often limited in their address of situational variables that are equally important in driving academic behaviour. The main reasons Tippitt et al. (2009) reported for engaging in academic misconduct imply a need to consider both situational vs. individual variables and emotional vs. rational factors that drive academic misconduct: a desire to outcompete peers; lack of preparation and desperation; not learning this behaviour is wrong; and the thrill of trying to avoid detection. The example of academic misconduct supports the idea that moral behaviour contains both rational-cognitive and emotional-intuitive components (Ampuni et al., 2020). Moral decision-making in the academic context is both a calculus of the costs vs. benefits of cheating as well as sense of self-confidence, self-imposed pressure, and feeling that the institution is meeting obligations towards students (Miller et al., 2011).

In the next sections, I outline two moral frameworks and their potential applications to academic misconduct research: the rational-cognitive *dual-process model* and the emotional-intuitive *moral foundations theory*. The dual-process model and moral foundations theory provide ways of adjusting and measuring the situational variables in a systematic way. In reviewing these models, I explore the main premises of the dual-process model and moral foundations theory, followed by their usability for empirical studies into academic integrity.

Dual-Process Model

The dual-process model suggests that people's moral reasoning either follows utilitarianism or deontology. Utilitarianism deems behaviour as moral if it aims to maximise wellbeing for the most people (Bentham, 1789). Deontology indicates that a behaviour's moral worth should be determined by how well it adheres to existing moral standards (Kant, 1785).

Researchers often determine people's preferred decision-making framework using their responses to a set of moral dilemmas: the content can be adapted to a variety of contexts such as medical, military, or national security (Christen et al., 2021; Gosling & Trémolière, 2021; Shao, 2020). The chosen moral dilemmas often place the utilitarian and deontological response in opposition with one another so that participants must choose between them (Kahane et al., 2015). The classic (although much debated) moral scenario is the trolley problem: a trolley is hurtling down a train track where five people are strapped down (Salvador, 2019). You (i.e., the survey taker) can choose to leave the trolley to kill the given people or flick a switch that will divert the train onto another track where only one person is trapped. Conventionally understood, the utilitarian response is to flick the switch since this will preserve five people and kill one. The deontological response is to leave the trolley to kill five people because moral norms suggest it is wrong to initiate an innocent person's death but acceptable to allow an existing misfortune's continuation. In moral psychological studies centred on a dual-process model, researchers usually calculate participants' utilitarian and deontological leanings based on forced-choice responses to a battery of sacrificial moral dilemmas where utilitarian and deontological choices are incompatible.

Initial neuroscientific and cognitive research into utilitarian vs. deontological thinking deemed utilitarianism a mark of rational calculation and deontology a result of emotional reasoning. Kahneman (2011) contends that people use two cognitive systems: Systems 1 (consisting of immediate, intuitive responses) and Systems 2 (consisting of rational calculation and statistical reasoning). Greene et al. (2004) suggested that deontological reasoning resulted from System 1 process and utilitarianism was connected to System 2 process. However, Gamez-Djokic and Molden (2016) undermined the emotional-rational divide imposed on the deontological-utilitarian difference. Instead, they found that utilitarian thinking could be made more emotional by increasing the potential reward in hypothetical moral dilemmas. Deontological reasoning was connected to participants considering their decision against existing semantic decision rules. Instead, Gamez-Djokic and Molden (2016) suggested that the utilitarianism and deontology were actually differentiated by contrasting motivational focuses: risk aversion (i.e., more motivated by the prospect of potential harm) vs. reward orientation (more motivated by the prospect of potential reward) respectively. People who follow a utilitarian framework are willing to exact harm with the hope of increasing wellbeing outcomes for more people. People who follow a deontological framework fear the emotional and physical risks attached to violations of moral conventions.

The dual-process model and its accompanying battery of moral dilemmas have been appropriated for many issues such as medical triage during COVID-19 and terrorism incidents (Bloom et al., 2020; Tutić et al., 2022). The main advantages of the moral dilemma paradigm are that it is easy to administer and adjust the impact of reward or risk in the scenario. Furthermore, the utilitarian vs. deontological divide appears to capture reality-based biological and psychological differences as shown in neurological and cognitive research (Greene et al., 2004). Next, I consider challenges to the dual-process model and moral dilemma structure.

Ongoing Debates to the Dual-Process Model

The moral dilemma paradigm faces various challenges. Kahane et al. (2015) states that a sacrificial moral dilemma paradigm cannot capture the reasoning process a reader underwent before choosing the assigned 'utilitarian' response (i.e., the one that causes harm to one party to avert a greater harm). First, moral dilemmas tend to be melodramatic, fantastical, and almost always sacrificial, which deviates from everyday moral situations. Second, researchers have found various drivers behind so-called utilitarian responding that are unrelated to any concern for the greater good: these drivers include psychopathy and general tendency to choose action over inaction (Gawronski et al., 2017). However, the unknown nature of reasoning processes can be overcome by accumulating evidence from varied experimental designs. For example, Gamez-Djokic and Molden (2016) used qualitative short responses to understand the reasoning behind people's moral decisions. Qualitative methods still contain the problems of self-report modes (e.g., social desirability bias, interviewer effects) like closed-response surveys. However, the utilitarianism/deontology divide depends on rational conscious thinking as opposed to emotional intuitions, making self-report and self-reflection a valid way of understanding them.

Further blurring the differences between utilitarian and deontological thought is the extent to which non-framework-related situational and personal factors influence moral decisions. For example, in the trolley dilemma, people are more likely to kill one person to save the multiple in a version where they simply press a switch to change the tracks compared to the version where they must push the one person in front of the train to halt it before it kills others (Klenk, 2022). Other situational factors that affect moral decision-making include cognitive pressure (e.g., time limits) and incidental emotions. Personal factors that affect moral decisions include psychopathy (which is linked to choosing 'utilitarian' options) and gender (females being more included to deontological reasoning and males to utilitarian reasoning) (Friesdorf et al., 2015; Klenk, 2022). However, it is also arguable that some of these factors that appear to be unrelated to frameworks may actually influence people' perceptions of norms and outcomes, the key concepts underlying deontology and utilitarianism respectively.

Dual-Process Usage in Academic Integrity Context

The dual-process model may explain some demographic differences commonly found in academic integrity literature. For example, Miller et al. (2011) found that students who cited punishment (a utilitarian consideration) as a reason for not cheating were more likely to cheat than students who cited personal integrity (a deontological consideration). Females are less likely to cheat than men: females are also more likely to cite deontological reasons for choosing honest behaviour while men are more likely to make utilitarian justifications for their actions (Friesdorf et al., 2015; Rundle et al., 2019).

Fink et al. (2022) concluded that promoting academic integrity based on moral principles and ideas of autonomy (deontological concerns) rather than punishment or competition (utilitarian concerns) will likely produce more honesty among students. Appealing to deontological concerns may increase female students' inclination to academic honesty compared to men, although the relationship between reasoning style and gender requires further testing.

Next, according to Gamez-Djokic and Molden's (2016) findings, students who maintain academic integrity may either be measuring the opportunity to engage in misconduct against semantic decision rules (if deontological) or cost-benefit calculation (if utilitarian). Appealing to a deontological mindset would involve inducing fear and guilt about the prospect of engaging in academic misconduct. This strategy would not work on a utilitarian mindset, which focuses primarily on potential rewards and in settings where engaging in malpractice may seem more worthwhile than honest work. Students who follow a utilitarian reason for avoiding misconduct may see completing the assignment themselves as more rewarding and effective than hiring a ghost writer. Appealing to a utilitarian mindset would involve suggesting the inefficiency of misconduct compared to self-completed work.

It is also important to consider the implications of ongoing debates from the moral decision-making literature on our interpretations of academic behaviour. When designing campaigns or policies against academic misconduct, the effectiveness of appeals to utilitarian vs deontological senses may vary according to situations and personal characteristics. For example, psychopathy will reduce the likelihood of responding to deontological messaging (Marshall et al., 2018). In addition, imposing time pressure makes people more likely to choose a deontological rather than utilitarian option in sacrificial moral dilemmas (Klenk, 2022). In an academic context, time pressure differs between assessment types. For example, exams involve higher time pressure than take home assignments. Comparing the reasoning behind and likelihood of misconduct in exams vs. take home assignments could drive the way messaging about academic integrity in different assignment types targets various moral senses.

The academic integrity context can also help us understand the way deontology and utilitarianism function in the real world. While many moral dilemmas suffer the flaws of being melodramatic, the academic integrity setting generates moral dilemmas of many seriousness levels. Kiser et al. (2009) used the moral dilemma paradigm and Kohlberg's framework to understand students' beliefs about ethical technology usage. Many of these dilemmas could be used or appropriated to an academic integrity context beyond the technological space. For example, one scenario was 'should a student pretend to be a cancer patient in an online chat room in order to gather information for a paper he/she is writing for a class?' (Kiser et al., 2009, p. 94). Situational aspects of the scenario can be manipulated by changing the imposter identity (e.g., another student) or consequences of the assignment (e.g., whether it is used to inform important patient decisions vs. a participation requirement for educational purposes only). It is also possible to compose dilemmas that overcome the confound between utilitarian responding overlapping with the 'take action' option: for example, action (e.g., exposing a colleague's fraudulence) could

Table 3.1 Variants of the Kiser et al. (2009, p. 94) academic integrity scenario that manipulate factors known to affect people's tendencies to choose deontological vs. utilitarian decisions. The original is: 'should a student pretend to be a cancer patient in an online chat room in order to gather information for a paper he/she is writing for a class?'

Scenario	Factor manipulated from original	Utilitarian option	Deontological option
A student is doing a compulsory assignment on interviewing cancer patients in an online chatroom. Should the student pretend to be a cancer patient to gather information for the paper?	Control scenario	N/A	N/A
[Control scenario]... The assignment will not count to the student's final grade in the unit.	Lower cost to perpetrator	No	No
[Control scenario]... The assignment will be worth 50% of the student's final grade in the unit.	Higher cost to perpetrator	Yes	No
[Control scenario]... The task is only an educational exercise and results will be discarded after marking.	Lower cost to victim (i.e., the public)	Yes	No
[Control scenario]... The results will contribute to hospital planning in cancer patient wards	Higher cost to victim	No	No

align with deontological reasoning while remaining passive (e.g., overlooking obvious cases of plagiarism) could align with utilitarian reasoning (e.g., saving trouble for staff members and student from a financially struggling family). Table 3.1 shows different variations of an academic misconduct dilemma that manipulates different aspects of a dual-process approach.

The dual-process model can add to our understanding of moral decision-making in academic contexts. However, academic integrity is a mix of emotional and cognitive factors. The dual-process model arguably confines moral reasoning to different forms of logical calculation at the expense of intuitive factors. In the next section, I explore a more emotionally inclined approach to moral behaviour: moral foundations theory.

Moral Foundations Theory

Haidt (2013) developed moral foundations theory as a framework for understanding intuitive responses to moral perception. In contrast to the rationally-focused cognitive developmental theories, Haidt (2013) likens morality to a set of intuitive taste receptors known as moral foundations. Moral foundations theory was developed from a thematic analysis of moral codes across different cultures. The themes are listed as five corresponding 'virtue/vice' pairs: care/harm, which refers the amount of harm or benefit inflicted; fairness/cheating, which is concerned with people

reaping undeserved benefits; authority/subversion, which respects beneficial relationships within hierarchy and social order; sanctity/degradation, which is about protecting the individual and others from contamination; and loyalty/betrayal, the extent to which people side with their in-group (Haidt, 2013).

Moral foundations theory was designed to provide an intuition-based alternative to the hyper-rational approach embedded in Kohlberg's (1973) theory of moral development as well as the dual-process model that dominated prior moral psychology. Rather than suggesting people's moral decisions depended on rational calculations, moral foundations theory claims that moral responses are emotionally triggered then justified after they occur (Haidt, 2013). These modules were evolutionarily adapted to protect against anti-social tribe members and potentially disease-ridden stimuli (Haidt, 2013; Sznycer & Lukaszewski, 2019). The sensitivity of each module depends on socialisation and individual differences (Landmann & Hess, 2018).

The main contributions of moral foundations theory have been in political psychology research, specifically the differences between progressives and conservatives ('left' vs. 'right') and campaigns about controversial topics (Musschenga, 2013). Faced with an increasingly polarised political space in America, Haidt (2013) sought to help people across the political divide see one another as people with differently sensitised moral foundations rather than people fighting for good vs. evil. He observed that progressives valued care followed by fairness while conservatives valued all five foundations equally. For example, progressives are more likely to approve wealth redistribution policies for the sake of supporting vulnerable populations. In contrast, conservatives are more likely to disapprove due to their perception of redistribution (via taxation) as theft from taxpayers.

Moral Foundations Theory in Academic Integrity Context

Moral foundations theory's emotionally focused themes can contribute to approaches that universities can take to reduce academic misconduct. First moral foundations theory suggests that moral judgements are intuitive first and then rationalised later. Indeed, students have been found to neutralise unethical behaviour by coming up with post-hoc rationalisations. For example, researchers have found that students justify misconduct by downplaying the consequences of cheating, devaluing the worth of the assignment or suggesting that cheating is a norm in their cohort (McCabe, 2016). Thus, academic integrity approaches such as existing criminological frameworks and dual-process model may be incomplete in their focus on cost-benefit calculus. The emotional basis of moral judgements may also explain students' susceptibility to misbehaviour due to moral disengagement or the deactivation of guilt (Ashford, 2021; Curtis et al., 2022). Similar to Haidt's (2013) account of moral justifications, guilt deactivation usually involves after-the-fact rationalisation through techniques such as euphemism, advantageous comparison, and distorted views of consequences. According to Newton and Lang (2016), essay

mills have already targeted the emotional bases of cheating behaviour. For example, they use flawed advantageous comparisons (e.g., claiming that academia is inherently corrupt) and minimisation of behaviour (e.g., describing their services as 'homework help' and 'exemplar answers') to reduce guilt attached to cheating.

The moral foundation of fairness/cheating may also explain the significant influence of norms on cheating: students who believe cheating is normal or unpunished may find it unfair to exert honest, hard effort while their peers are taking the 'easy', illicit way out (see Curtis, 2023). Alternatively, Marsden (2016) found that students who insisted on 'A' grades were more likely to cheat: this may be because the perceived consequences of failing to achieve an 'A' are inflated compared to the consequences of cheating. Understanding the moral foundations that students are sensitive to may improve administrators' and educators' capacity to communicate the severity of academic cheating. For example, while academic integrity primarily engages the fairness/cheating module, it also relates to the sanctity/degradation module for religious students. Studies by Onu et al. (2021) and Ridwan and Diantimala (2021) found that students with high levels of religious knowledge were less likely to cheat than those with lower levels of religious knowledge.

Ongoing Debates in Moral Foundations Theory Research

Despite the potential contribution of moral foundations theory, challenge to its underlying theoretical structure and basis in reality may undermine its capacity to unpack moral emotions behind academic misconduct. There remain questions about the latent structure of moral foundations theory and extent to which specific emotions connect to moral foundations. One reason for this is that moral appeals to harm and purity are extremely difficult to activate separately, especially in real life moral dilemmas. Landmann and Hess (2018) found that violations of any foundation triggered anger and contempt but only purity was linked specifically to disgust. The lack of specificity in triggered emotions led Landmann and Hess (2018) to propose a collapsed moral foundations structure that identified three instead of five modules: suffering, intentional norm violation, and purity violation. However, there are other proposals to expand moral foundations theory to six, adding in a liberty/oppression dynamic that refer to feelings of resentment towards authority (Haidt, 2013).

The instability of moral foundations theory's core structures undermines its attempt to ground itself in reality through evolutionary explanations. Haste (2013) states that many of these explanations are post hoc and are inappropriate for investigating sociological, artificial constructs such as political differences (or academic integrity). She suggests that the idea of evolutionary wiring weakens under the fact that morally-triggering stimuli can change according to context (e.g., changing attitudes towards first-cousin marriages, becoming accustomed to the excreta of dependants etc). With the instability of moral foundations theory's proposed modules, Gray and Keeney (2015) suggest that moral foundations theory

may simply be a repackaging of progressive vs. conservative differences, which makes it too specific to an American context to qualify as a universal psychological framework.

Conclusion

Academic integrity is important for ensuring that students leave higher education with the appropriate skills and ethical character for professional success. This chapter highlighted the need to focus on the moral aspects of academic integrity that involve creating a sense of cultural integrity and personal duty to uphold ethical behaviour. Improvements to the moral dimension of academic life will have the most profound impacts not only on the learning environment but professional life. However, the moral aspects of academic integrity have not yet capitalised on frameworks in moral psychology. Therefore, I explored the way the dual-process model and moral foundations theory can enhance our understanding of moral reasoning in an academic context.

Connecting academic behaviour with the dual-process model's utilitarian vs. deontological differences in regulatory focus can help design effective messaging against academic misconduct. The moral dilemma paradigm can also provide researchers with systematic way of adjusting the variables that may influence students' perceptions of specific misconduct scenarios. Moral foundations theory's emphasis on the emotional aspects of moral behaviour suggests that the focus on rational calculation inherent in dual-process and other cognitive-developmental theories are incomplete. Moral foundations theory implies the importance of adjusting emotional register around discussions of academic misconduct and honesty.

A potential drawback of both dual-process and moral foundations theories is that both are open to the effects of ambiguous interpretation. For example, a so-called utilitarian option in a moral dilemma can be reached via deontological reasoning, and the harm vs. purity facets in moral foundations theory are difficult to separate in real life scenarios. However, the dual-process model arguably excels in providing an explanation and experimental paradigm to moral behaviour compared to moral foundations theory, which relies on descriptive trait measures and tenuous basis in reality.

Nevertheless, both may provide valuable insights into the reasoning behind students' choices to follow or break academic rules. While current academic integrity literature has investigated cognitive and emotional aspects of cheating, these are often explored in isolation even though the ethical aspect of behaviour is both cognitive and emotional. Moral frameworks, particularly a combination of the rationalist dual-process model and affective moral foundations theory, provide an integrated method for understanding the interaction between cognitive and emotional factors that affect the decision to engage in misconduct or not.

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Chapter 4
Lies, Lies, Lies: Detecting Deception and Implications for Investigations of Academic Cheating

Brenda M. Stoesz

Abstract Contrary to popular belief, research indicates that individuals in the general population are poor at detecting truthfulness or deception using facial cues (Stel & van Dijk. *Social Influence,* 13(3):137–149, 2018). We also tend to have a truth-bias, where we judge more truths as truths than lies as lies (Baker et al. *Legal and Criminological Psychology,* 18(2):300–313, 2013; Bond & DePaulo. *Personality and Social Psychology Review,* 10(3):214–234, 2006). Successful deception detection is often based on multiple sources of information, and it may take days, weeks, or months to draw conclusions about others' truthfulness (Park et al. *Communication Monographs,* 69(2):144–157, 2002). Educators encounter numerous types of deception, and the accuracy of lie detection could be quite useful when investigating allegations of academic misconduct. Findings from deception research suggest that discovery interviews used in academic misconduct cases may not be worthwhile unless educators and administrators are specifically trained to detect deception (Driskell. *Psychology, Crime & Law,* 18(8):713–731, 2012) and examine multiple sources of evidence before coming to conclusions (Ellis et al. Technology, policy and research: Establishing evidentiary standards for contract cheating cases. In T. Bretag (Ed.), *A research agenda for academic integrity* (pp. 138–151). Edward Elgar, 2020). This chapter summarizes the peer-reviewed research literature on detecting deception and outlines the implications for investigations of academic cheating.

Keywords Academic cheating · Deceit · Honesty · Investigation · Microexpressions · Truth bias

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Introduction

> "The truth is written all over our faces."
> Cal Lightman (Tim Roth), *Lie to Me* (Baum & Schewentke, 2021)

Popular media would have us believe that we can detect lying simply by attending to and interpreting facial cues, such as eye-gaze direction, blink rates, non-genuine smiles (known as non-Duchenne smiles), or pursed lips. In the television series, *Lie to Me* (Baum & Schewentke, 2021), the main character, Dr. Cal Lightman (played by Tim Roth) is an expert at detecting when people are attempting to deceive others. The fictional television show is quite entertaining with twists and turns in the storyline that stem from the challenges that Dr. Lightman and his team of "lie detectors" are hired to tackle in each episode. The show's scientific advisor is Paul Ekman, a psychologist who began his career researching facial expressions and body movements (Paul Ekman Group, n.d.). Ekman is credited with the discovery of microexpressions or involuntary movements that often "leak" and make it possible for others to detect deception (Ekman & Friesen, 1969, 1974). Although the television series is designed to entertain, it blurs the lines between fact and fiction in the abilities to discriminate truthfulness from deception and the nondiscerning viewer may believe that even they can become experts at detecting the most serious deception cases. Contrary to this notion, research indicates that individuals in the general population are poor at detecting truthfulness or deception using nonverbal behaviour, such as subtle facial cues, microexpressions, and body movements (Stel & van Dijk, 2018). This chapter summarizes some of the peer-reviewed research literature on lying and deception, including academic cheating, our abilities (or lack therefore) to detect deception, and outlines the implications for investigations of academic cheating in higher education.

Defining Deception

Deception, or lies, faking, insincerity, omission, malingering, and cover-ups, comprise a complex set of acts (Barber, 2020; Kalbfleisch & Docan-Morgan, 2019) "intended to foster in another person a belief or understanding which the deceiver considers false" (Krauss et al., 1976, as cited in Zuckerman et al., 1981, p. 3). Thus, deception has a dual nature; it comprises both the false message and the metacognitive elements about the sincerity of the false message (Zuckerman et al., 1981). Because lying must involve at least two people, it is also viewed as part of the collection of aversive interpersonal behaviours (Kowalski et al., 2003).

Although society generally condemns all lying, some lies are considered worse than others. Therefore, deception has been classified by the intention of the deceiver, whether being caught in the lie will result in less or more severe consequences, the beneficiary of the lie, the degree of truthfulness in the lie, and how the lie is perceived by others (Bryant, 2008). The categorization of lies as real, white, or

grey depends on the aforementioned factors plus the level of acceptability or justifiability. Real lies are defined as lies that are simply not true, and involve malicious motives, are self-serving, and are deemed not acceptable (Bryant, 2008). White lies, or those where the "falsehood [is] not meant to injure anyone, and [is] of little moral input" (Bok, 1978, p. 58), are often regarded as acceptable because the deception is viewed as harmless or trivial, and often serves prosocial purposes (Baker et al., 2013). Many of the lies we tell everyday, such as expressing to someone that their haircut looks amazing when you actually think it is not, are considered white lies and may facilitate relationship building. Finally, gray lies have been described as ambiguous, and fall somewhere between real and white lies. Gray lies are viewed as real lies that are justifiable given the circumstances (Bryant, 2008). Academic misconduct could be categorized as gray lies by students because they may intend to deceive their instructors and the educational institution when engaging in cheating behaviours and feel that their actions are wrong, but trivialize and justify those actions anyway (Stone et al., 2009).

Prevalence of Lying

"Pure" aversion to lying is rare (Vanberg, 2017), therefore, it should come as no surprise that some researchers have demonstrated that the average person lies multiple times every day (Bryant, 2008). Other researchers, however, have come to the conclusion that "only some lie – a lot" (Halevy et al., 2014, p. 54; Serota et al., 2010). In a national online survey of 1000 randomly selected American adults (aged 18 years and older), Serota et al. (2010) asked participants how many times they had lied in the past 24 hours and to whom. The authors found that people told one to two lies per day on average (either in face-to-face or computer-mediated interactions). The shape of the distribution was skewed, however, and warranted closer examination of the data. Subsequent analyses revealed that most people told no lies during the past 24 hours, but a few people (5.5% of the sample) told an average of 15.6 lies per day. Interestingly, the rate of lying decreased with increasing age. Serota and colleagues then cross-validated the general patterns of results in a separate group of 229 postsecondary students. Consistent with the national sample, the authors found that the postsecondary student sample (i.e., the younger adults) told more lies per day than the national average but, again, only a few postsecondary students deceived a lot.

Deception, in the form of cheating on assessments, attendance related lying, and false reactions to instructors' inquiries, by students in primary to graduate school is relatively common (Christensen Hughes & McCabe, 2006; Stoesz & Los, 2019; Tindall et al., 2021). In a study involving ninety 12–17-year-olds, 95.6% of these junior and senior high school students reported cheating at least once in their academic work and those who cheated more often were more likely to perceive cheating as less serious (Stoesz & Los, 2019). Curtis et al. (2022) surveyed 4098

postsecondary students in Australia to estimate the prevalence of academic misconduct. Approximately 3.5 and 4.2% of students admitted to serious deception involving the submission of academic work obtained from commercial contract cheating services and/or commercial file-sharing sites in a control condition or during an incentivised truth-telling condition, respectively. Based on the tendency of survey respondents to underreport involvement in behaviours deemed socially-undesirable, the authors hypothesized that the actual contract cheating rates were three to four times higher. In another study, Curtis and Clare (2017) found that postsecondary students who engaged in this serious form of academic misconduct (i.e., contract cheating) were likely to be repeat offenders. Thus, it seems that the practice of deception can often lead to more deception, not only in our daily lives but in educational contexts as well.

Who Do We Deceive the Most and Why?

Reasons for lying are numerous. Some people deceive for fun to joke around with friends or for the thrill of it and are curious about the reactions that their lies may elicit (Carson, 2006). Others may be required to lie when carrying out the duties of their professions (e.g., undercover operatives, military leaders, lawyers, and politicians) (Semrad et al., 2019). The average person, however, may lie to establish personal boundaries (Kagle, 1998), to protect themselves or others from some degree of psychological or physical harm (Bryant, 2008; DePaulo & Kashy, 1998; Kagle, 1998; Kelly & Worell, 1978), and/or to avoid consequences (Hollinger & Davis, 2006).

Some research findings suggest that family members or friends are lied to more often than acquaintances or strangers (Park et al., 2002; Serota et al., 2010), whereas other evidence suggests that lies are told less often to people to whom we feel close (DePaulo & Kashy, 1998). Regardless of the frequency with which we lie to close family and friends, when we choose to deceive them, our lies are more often other-oriented and less often self-centred, with the purpose of preventing our loved ones from feeling distressed (DePaulo & Kashy, 1998). This finding is interesting and may help us to understand why some students may make poor decisions when completing their academic work. Studies show that students who are dissatisfied with the teaching and learning environment are more likely to cheat (Bretag et al., 2019a, b; Chow et al., 2021). Dissatisfaction could be linked to lack of positive, working relationships with instructors or educational institutions in general, making it much easier to justify deception. On the assumption that enthusiastic teachers serve as role models (Frenzel et al., 2009), and that students do not want to be unfair or disrespectful to their role models by cheating, Orosz et al. (2015) examined the direct and indirect associations between teacher enthusiasm and academic cheating. The authors learned that teacher enthusiasm was an important interpersonal variable linked to likelihood of not cheating, above and beyond motivations for learning.

Reasons for engaging in academic misconduct are more complex, however, and researchers have attempted to understand the individual characteristics and motivations of those who are at greatest risk of engaging in such acts. In academic work, deception may be related to age, gender, grade expectations, low perceived efficacy, academic stressors (i.e., time constraints, workload), and the desire to present oneself positively to others or to save face (e.g., Griffin et al., 2015; McCabe & Trevino, 1993). Griffin and colleagues found that a large proportions of students in their study (i.e., 91.9%) believed that deception helped them to achieve their academic goals. This finding is consistent with research providing evidence that students are more likely to engage in academic misconduct when appearance goals are induced (e.g., by focusing on grades) and when success is defined by end results rather than by processes and strategies involved in solving problems (Daumiller & Janke, 2019). Therefore, academic misconduct and then lying about the misconduct may also be triggered by the need for self-preservation and maintaining appearances (Burgason et al., 2019; Murdock & Stephens, 2007). In addition, academic cheating and other types of deception are more likely if the chance of getting caught and the consequences associated with the deception are relatively small (Rigby et al., 2015; Vanberg, 2017).

Detecting Deception

Historical records indicate that lying was first viewed as an issue of legality several centuries ago (Bond & DePaulo, 2006). As a result of deception being considered a legal issue, those in positions of authority were motivated and often obligated to devise and use various methods of *ordeal* to prove innocence or of torture to extract the "truth" and to punish the liar (Trovillo, 1939). Methods of ordeal often required the accused liar to "voluntarily" apply the selected lie test to themselves, such as the excruciatingly painful act of placing one's own tongue onto a red-hot iron. If the tongue burnt before the ninth application, this was taken as evidence that the person was guilty of lying, as a truthful person was assumed to be immune from experiencing great harm. Davis and colleagues write that "torture was actually historically required by some courts ... This perspective assumed that individuals would be honest under such harsh conditions" (2019, p. 770).

Fortunately, ordeal and torture are not the *go-to* ways in which we attempt to distinguish truthfulness from deception in our modern, everyday lives. In everyday situations, we rely on the way words and phrases are spoken and attempt to decode nonverbal behaviours, such as expressions on faces (e.g., smiling) and face and body movements (e.g., blinking, scratching, shrugging), to infer other people's emotional and cognitive states (i.e., Theory of Mind), including attempting to distinguish truth from fiction. In early work on detecting deception, Ekman and Friesen (1974) assigned nursing students to one of four experimental conditions in which they were instructed to be honest or lie about their feelings after watching pleasant or stressful medical training films, and then asked them to list the behaviours they felt

they could control or avoid doing in order to deceive an interviewer. Participants mentioned the face more often than the body as something to control when they were attempting to deceive. Video recordings of the interviews of participants were then shown to another group of participants. When asked to judge whether the interviewee was being truthful or deceptive, this second group of participants were more accurate when judging deception by viewing body movements. Thus, there appears to be a mismatch between our beliefs about how we detect deception using visual cues and what we actually pay attention to when identifying deception.

In two studies examining people's abilities to distinguish true from deceptive emotional expressions, Stel and van Dijk (2018) asked participants to watch video clips of individuals lying or telling the truth about their positive or negative emotional experiences. Participants were then asked two questions: (1) To what extent were the individuals in the videos truthful or deceptive? (i.e., a direct measure of deception detection) and (2) Which emotions were the individuals in the videos experiencing (not simply showing)? (i.e., an indirect measure of deception detection). The analyses of participants' responses to the first question revealed that truth tellers and liars were indistinguishable regardless of the valence of the emotions that were expressed, but were more accurate when inferring negative than positive emotions for both truth tellers and liars (the second question). Stel and van Dijk argued that participants focus more on subtle visual and affective details when asked to focus on what others may actually be experiencing rather than what their faces are expressing overtly. This indirect method of detecting deception is hypothesized to be possible because deceivers are inconsistent in how they display deceptive negative emotions compared to deceptive positive emotions (Porter & ten Brinke, 2008).

Along with cues from faces and bodies, we may examine another's general appearance and use previous knowledge about personality characteristics to better inform our judgements about the potential deception. Perhaps because we all lie at various times and for various justifiable and unjustifiable reasons, we may believe that we can easily and immediately spot when other people are trying to deceive us (Bond & DePaulo, 2006; Stel & van Dijk, 2018; Ulatowska, 2017). Unfortunately, this is not the case. In their synthesis of 206 research studies that included 24,483 participants, Bond and DePaulo (2006) estimated that the average rate of lie-truth discrimination was approximately 54%. Thus, individuals in the general population are no better than chance at correctly detecting deception using facial cues whether another person is being truthful or deceptive.

Distinguishing a lie from the truth with greater accuracy, however, would be advantageous in education (Ulatowska, 2017; Vrij et al., 2006). Ulatowska (2017) examined teachers' beliefs about deception cues and the ability to detect lies, and compared their responses to the responses of education and psychology students, as well as a group of participants matched on age and education level but not working in the education profession. All participants had incorrect beliefs about deception cues. Interestingly, the overall honesty assessment accuracy was 53%, which comprised the lie detection rate (47%), and the truth detection rate (60%). There were no differences between groups of participants. The truth bias was also evident in the teacher and control groups, but not the student group. Accuracy of beliefs regarding

cues to deception were not linked to the honesty assessment accuracy. These results have important implications for investigating academic misconduct, and mirror results of other studies demonstrating that those in certain professions (e.g., social work, law enforcement) may feel confident in their abilities to identify lies, but are actually no better than chance at detecting deception (e.g., Vrij et al., 2006a, b).

Why Detecting Deception Is Difficult?

One reason for difficulties in detecting deception is that there is no fixed set of objective behaviours that accompany deception. The stereotyped liar averts their gaze, smirks or smiles, touches their face or hair, fidgets, and shifts their posture (Ulatowska, 2017), but these are signs of nervousness even when we are being honest. In infancy (Morton & Johnson, 1991), we are drawn to look at faces and quickly develop the ability to accurately identify who we are looking at and what they are feeling (Haist et al., 2013; Meaux et al., 2014; Stoesz & Jakobson, 2013, 2014), even when their faces are obscured by darkness or are partially covered (Bassili, 1979). Because of our relative visual expertise in static and dynamic face and body processing, we may feel that we are experts at lie detection as well even though we are not (as described above). However, the "relationship between [certain] nonverbal cues and deception is faint and unreliable" (DePaulo & Morris, 2004, as cited in Vrij et al., 2019, p. 302). Paying attention to how people are speaking, such as the pitch of their voice, making speech errors and hesitations, and pausing, is associated with lying, but most often this relationship is also weak and may only be observable when an interviewer asks the liar certain types of questions (Vrij et al., 2019).

Deception detection is also inaccurate because we have a truth-bias, where we judge more truths as truths than lies as lies (Baker et al., 2013; Bond & DePaulo, 2006). This leads to what has been coined as the "veracity effect" – that is, truth accuracy is greater than chance, but accurate detection of lies often falls below chance levels (as described above) (Levine et al., 1999). The truth-bias is quite strong (Pantazi et al., 2018), especially between persons familiar to each other (Millar & Millar, 1995) and people who engage in face-to-face conversations (Buller et al., 1991). Interestingly, a robust truth-bias has even been observed when contextual evidence suggests that deception is probable (McCornack & Levine, 1990). The truth-bias and the veracity effect may come about because typical people actually do tell more truths than lies (Serota et al., 2010). In addition, mental systems have limited processing power and require that some information is processed with greater automaticity than other information (see Gilbert, 1991). To believe information may be more automatic and effortless because it is less likely to require evaluation. Disbelieving, in contrast, requires gathering additional information and comparing that to existing knowledge, which requires more energy (Gilbert, 1991).

Deception detection is also more difficult when the deceiver is good at telling convincing lies (Semrad et al., 2019), which develops with increasing age (Lee, 2013). Children (Talwar et al., 2007), adolescents (Feldman et al., 1999), and adults (Riggio et al., 1987) who tell lies convincingly have elevated levels of communication competency that allows them to more easily navigate social interactions, including those that involve dealing with difficult subjects (e.g., academic misconduct) effectively. In their experimental study examining prosocial lie-telling, Talwar et al. (2007) found that the majority of children, aged 3–11 years ($N = 323$), told white lies in situations where the expectations were to be polite, and were more likely to tell the lie if their parents reminded them to be polite (68% and 86%, respectively). In addition, older children in the study were also more likely to tell prosocial lies and to elaborate on them than younger children. This developmental trajectory is consistent with other findings that children's ability to conceal their transgressions by lying improves as they enter school-age years (Feldman et al., 1999). And, this ability to hide their wrongdoings of the non-academic variety is likely linked with successfully concealing academic cheating from parents, educators, and school administrators.

In a systematic review of the limited research about personality traits of good or expert liars, Semrad et al. (2019) found that three personality models were used by researchers to describe these individuals – Dark Triad (Machiavellianism or "the belief that others can be manipulated to achieve personal goals" (p. 308), psychopathy characterized by impulsivity and denial, narcissism defined as excessive self love), emotional intelligence, and HEXACO (Honesty-Humility; Emotionality; eXtraversion; Agreeableness; Conscientiousness; Openness to Experience). Effective deceivers were described in some research studies as having high levels of Machiavellianism, experience and confidence, and being naturally good performers or actors, and highly manipulative and expressive. Understanding motivations for deceiving and characteristics of good liars has been of great interest to researchers, but, as Semrad and colleagues point out, it has been difficult for researchers to directly measure the effectiveness of a lie.

Can Deception Detection Be Learned?

Successful deception detection is often based on multiple sources of information, and it may take days, weeks, or months to draw conclusions about others' truthfulness. Park et al. (2002) asked 202 undergraduate students to recall the details of a lie that they discovered, how long ago did the event (i.e., the lie) happen, the nature of the relationship between them and the person who lied to them, how they discovered the lie, and how long it took them to discover the lie. The authors found that 266 methods were used to detect 194 lies, with the most common being evidence from third parties (32.0%). Physical evidence (18.0%), and using only verbal and nonverbal behaviours at the time of the deception (2.1%) were also reported.

The latter statistic is interesting as it is clear that using information by observing the deceiver's face and body at the time of the lie is insufficient to make an accurate judgement about truthfulness. Indeed, a significant percentage of lies were detected using combinations of methods (30.9%) that included third party reports, physical evidence, and confessions from the deceiver. Only 14.9% of suspected lies were detected at the time they were told, and most of the lies that were detected (17.5–20.6%) took about a day, week, month, or year to detect. Together, these results strongly suggest that we need to learn to pay attention to various types of information and take the time to gather and process the information to make an accurate truth-deception judgement.

Can we improve our ability to discriminate truth from lies through training? The short answer is yes. In a meta-analysis of 16 studies employing deception detection training that included information, practice, and/or feedback with 2847 trainees and included control groups (i.e., no training), Driskell (2012) found that "the effect was positive, significant, and of medium magnitude" (p. 724). Training programs were more effective when they incorporated knowledge, skills, and practice identifying specific cues of lying. Despite the overall evidence that we can learn how to detect deception more accurately in a controlled laboratory setting, the real world is more complex, and we are less likely to focus on face and body cues unless we have good reason to use our cognitive resources for deception detection.

Implications for Academic Misconduct Investigations

Educators encounter numerous types of deception, and the accuracy of lie detection could be quite useful when investigating academic misconduct. Consider the following scenario: Professor Morrison is grading mid-term papers and comes across one with several indicators that lead to suspicions that the paper in question was not written by the student who submitted it. He is surprised by what he has observed given the student's writing earlier in term. Before jumping to conclusions, he invites the student to a discovery interview meeting to discuss the assignment as recommended by department administrators. At the meeting, the student explains that a draft was submitted because there was no time to proofread and edit for final submission. Several events in the student's personal life, including a family death, took priority over the paper. The student showed sadness, but no signs of nervousness. Based on the student's statements and demeanour, Professor Morrison is convinced that the student was being truthful, and decides to provide the student with an opportunity to revise the mid-term paper and resubmit it. The student agrees. After the conversation with the student, Professor Morrison decides not to report his earlier suspicions nor the outcome of the conversation to the department administration. Given the research on correct identification of truths and lies (described above), how can Professor Morrison be certain that his judgement is accurate?

General Processes for Investigating Allegations of Academic Misconduct

Identifying, reporting, investigating, and making decisions about academic cheating comprise the general procedures for dealing with cases of deception in the academic context. There are, however, large variations in the specifics of each phase of the process across postsecondary institutions (Birks et al., 2020). Differences in the investigative process may be due to whether the suspected academic cheating cases are handled at the micro-level of the institution (i.e., by instructors or other educational staff), are decentralized to departments or faculties, or are managed by central units (Birks et al., 2020). There may also be differences in who is responsible for gathering evidence (e.g., instructor, administrator, or trained academic misconduct investigator), and what type of evidence should be collected (e.g., documents, interview notes), and whether technology (e.g., text-matching software, proctoring recordings) was used to assist in collecting evidence (e.g., University of Bristol, 2021). Consequences for cheating of various types also differ across institutions, and may depend on how cheating is defined, perceived severity of various offenses, and whether institutions take punitive, educative, or a combination of approaches to academic misconduct (e.g., Stoesz et al., 2019; Stoesz & Eaton, 2022). In addition, individuals within the roles of instructor, administrator, or other personnel involved in handling of academic cheating cases, rotate in and out, resulting in people with various levels of training, experience, and expertise tasked with finding the truth. These factors, and others, may contribute to inconsistencies, not only across institutions, but also within a single institution, when investigating cases of academic misconduct and determining the truth.

Discovery Interviews

Some procedures for handling cases of academic cheating include the use of discovery interviews. Discovery interviews are not simply casual conversations between instructors and students after an instructor has encountered behaviour or documents that appear suspicious. Discovery interviews should be used to help formulate insights and develop hypothesis, and have been recommended as a necessary component for investigations of academic misconduct. Similar types of interviews are used in various professional fields from customer service to law enforcement to understand problems and situations more fully. Along with specific interview questions and the verbal responses to them, some interviewers are encouraged to pay attention and note the demeanor of the interviewee. In Reid and Inbau's book *Criminal Interrogation and Confessions*, law enforcement officers are encouraged to evaluate demeanor (Inbau & Reid, 2004, as cited in Minzer, 2008). Indeed, even law courts may depend on these types of interviews and the demeanor of the suspected deceiver to determine the truth, however, social psychologists (and legal

critics) conclude that there is strong evidence that the accuracy of demeanor judgements is low (e.g., Minzer, 2008).

Therefore, discovery interviews for the purpose of learning more about the details of suspected cases of academic misconduct and for making judgements must include the following:

> Interviews should be conducted by trained academic integrity investigators rather than markers or academic staff. The focus of the interview and the designated interviewer may vary according to institutional policies and procedures. However, a critical principle in all cases is that the interviewer should be familiar with the assessment item in question and the areas of concern raised by the marker before conducting the interview. Importantly, an academic integrity investigation is first and foremost an opportunity to support students' learning (Curtis et al., n.d., p. 6).

Findings from deception research suggest that discovery interviews used in academic misconduct cases may not be worthwhile unless educators and administrators are specifically trained to detect deception (Driskell, 2012) and examine multiple sources of evidence before coming to conclusions (Ellis et al., 2020). Therefore, it is crucial that judgements about innocence or guilt with regard to academic misconduct are not made in the moment of the discovery interview. However, when evaluators have access to more information than just demeanor, pay attention to the context surrounding the statements made (i.e., information from third parties, physical evidence, and confessions), and take time to process the collection of information about the case, the ability to accurately judge truths and lies increases (Minzer, 2008; Park et al., 2002). Greater accuracy is important as this informs next steps in terms of consequences, which could take the form of encouraging the student take responsibility for the deceit and providing additional education (as appropriate) so that they are less likely to make poor decisions about their academic work in the future.

Although the focus of this chapter was on the detection of deception, the secondary goal of the chapter is to remind readers about the strengths and limitations of our ability to gather and process information of various types (e.g., documents, accounts from third parties, evidence from technologies) to construct a complete picture of the truth. False positives have the potential to be extremely damaging to students in terms of their trust in instructors and the educational institution, disrupt their overall learning, and may contribute to mental health issues (Ellis et al., 2020).

Conclusion

This chapter summarized the peer-reviewed research literature on detecting deception from face and body cues and outlines the implications for investigations of academic cheating. The consequences of failed detection of academic misconduct and failure to report the misconduct can have important consequences. Undetected and unpunished academic cheating is not only unfair to honest students, but may lead to conclusions that academic cheating is socially acceptable (Smyth & Davis,

2003) and may perpetuate the vicious cycle of dishonesty (Lord Ferguson et al., 2022). Preventing, accurately identifying, and dealing appropriately with academic cheating are vitally important as there is a relationship between academic cheating and workplace deviance (Graves, 2008; Lucas & Friedrich, 2005; Nonis & Swift, 2001).

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Chapter 5
Capitalising on Emotions and Emotional Regulation: Five Strategies to Improve Academic Integrity

Holly E. Tatum and Guy J. Curtis

Abstract This chapter explores the role that emotions play in students' decisions to cheat and their responses to cheating after it has occurred. We outline a model showing the potential connections between emotions and cheating. Next, we provide an overview of the literature on emotions, both anticipated and experienced, and academic dishonesty. The literature review covers anticipated moral emotions, fear of failure, positive and negative emotions, self-control, and emotional reactions to cheating. We connect the empirical findings from research on emotions and cheating to five strategies that instructors and practitioners can implement to deter academic misconduct and promote academic integrity. Finally, we suggest areas for future research into connections between emotions and cheating.

Keywords Emotions · Anticipated emotions · Emotional regulation · Cheating · Guilt · Shame · Fear of failure · Self-control · Honour code · Prevention

Introduction

The extant body of literature on academic integrity has established several categories of reliable predictors of cheating. These predictors include situational factors (e.g., classroom environment, peer norms, institutional culture), demographic variables (e.g., gender, SES, year in school), attitudes (e.g., peer disapproval), and individual psychological characteristics (e.g., impulsivity, rule-following propensity, personality). Underlying many of these predictors is the experience of emotion. For example, when students feel overwhelmed or experience fear of failure, they are likely to cheat (Mih & Mih, 2016). Students who are impulsive and those who are oriented towards

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immediate reward (i.e., grades/finishing their work) may be more likely to cheat in order to accomplish their short-term academic and emotional goals (Anderman et al., 2009).

This chapter explores the role that emotions play in students' decisions to cheat and their emotional responses to cheating after it has occurred. It is not an exhaustive review of all human emotions, but rather a sampling of some key emotions that have been studied in relation to cheating and academic misconduct. Our primary goal is to connect the empirical findings on emotions and cheating to strategies that can improve academic integrity. We present five strategies that faculty, administrators, and student development professionals can use to promote and maintain a climate of academic integrity while deterring students from cheating.

How Emotions May Contribute to Cheating

There are several pathways through which emotions are related to behaviour, actions, or, more specifically, a student's decision to cheat on a test. Figure 5.1 represents some of the effects of, and interactions between, emotions and cheating that are discussed in this chapter. We have included this figure in order to illustrate concepts that are raised within the chapter such as the direct vs. indirect effect of emotions.

From left to right, Fig. 5.1 starts with Precursors, these are anything that may influence emotions or emotional expectations, such as situational factors (e.g., external stressors) or the student's personality (some people are more susceptible to experience some emotions). Emotions, in Fig. 5.1, are simply what students feel at the present time, and Anticipated Emotions are what they expect to feel in the future if they decide to cheat. The line labelled "Direct path" represents the situation where the emotion itself is the cause of students' cheating, for example, a student may cheat

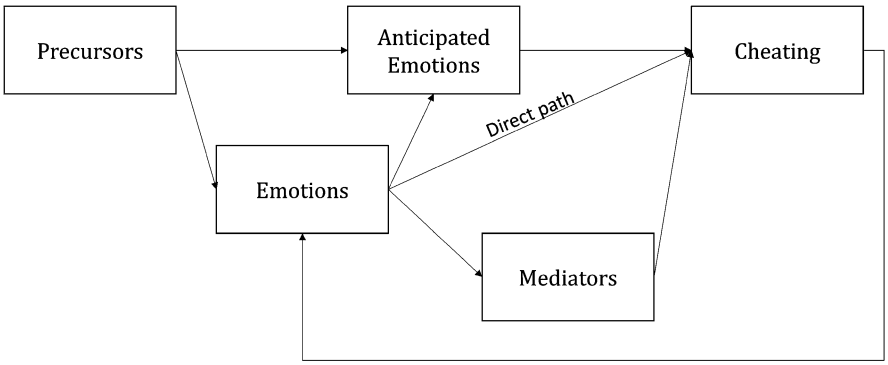

Fig. 5.1 Potential relationships between emotions, anticipated emotions, emotional regulation, and academic cheating

because they feel stressed. However, emotions may *indirectly* cause cheating by affecting other variables. For example, an emotion such as stress may cause students to anticipate a future emotional response to cheating, e.g., they may expect to reduce stress by cheating if that cheating helps them to pass a test that they otherwise expect to fail. Alternatively, the emotion may lead to Mediators that are related to cheating (i.e., variables that occur in time between the emotion and the cheating). For example, stress may reduce the student's ability to concentrate or their self-control, which then leads to cheating. Further considering Emotions and Anticipated Emotions, emotional regulation, such as neutralising (i.e., mentally reframing cheating as being more acceptable; Stephens, 2017), may influence how, or how much, these influence cheating, or how much cheating influences subsequent emotions. Finally, Fig. 5.1 includes a feedback loop from cheating to emotions, where, for example, cheating may lead to emotional responses such as shame (if the cheating is detected) or elation (if the student gets away with cheating). Figure 5.1 does not capture all of the possible pathways between precursors, emotions, anticipated emotions, mediators, emotional regulation, and cheating. Nevertheless, this Figure provides a guide for readers as to how these concepts and processes may be integrated.

In the next section, we review anticipated moral emotions as a deterrent for cheating, we then consider the interaction of some other emotions, emotional processes, and cheating. After that, we review how cheating affects emotions, and then we outline five strategies that build on the research findings with an aim of increasing academic integrity and reducing cheating among students.

Anticipated Moral Emotions and Cheating

Gilbert (2007) argued that a great deal of human behaviour is driven by anticipated emotions and that people are usually quite good at predicting how things will make them feel. Thus, on a very basic level, people try to do what they believe will make them feel happy and avoid things that will make them experience negative emotions. However, people weigh negative experiences as more influential and important than positive experiences (Baumeister et al., 2001). In addition, people tend to overestimate how long anticipated emotional reactions will last (Gilbert, 2007). Taken together, these phenomena combine such that people usually expect negative future events to be both serious and enduring, and, therefore, worth expending effort to avoid.

The effect of anticipated negative emotions being potentially more influential than anticipated positive emotions is evident in research on moral decision-making (Baumeister et al., 2007). Krettenauer et al. (2011), for example, found that anticipated emotions influenced moral decision-making in both prosocial and antisocial hypothetical situations but in different ways. With regard to making moral decisions about antisocial actions, in this case stealing and cheating at school, negatively charged self-evaluations of emotions, such as anticipating feelings of regret or

guilt when failing to act morally, did not predict prosocial moral choices (e.g., donating to charity, helping) but did predict moral decision-making in antisocial contexts. In other words, anticipating negative emotional experiences influenced the decision to cheat but did not influence the decision to donate to a charity. They also found that feelings of obligation were not largely related to moral decision-making, concluding that anticipated emotions serve as a unique contributor or have a direct effect on moral decision-making.

There is evidence that anticipating emotions such as shame and embarrassment may deter some forms of cheating behaviours (Carpenter et al., 2010; Curtis, 2023b; Finelli et al., 2003). Moral emotions, sometimes called self-conscious emotions, such as pride, shame, guilt, and gratitude, are what guide individuals to act in prosocial ways which, in turn, maintain society's norms and values. A discussion of academic integrity would be remiss if it ignored the role of moral emotions in cheating. Two moral emotions that are often studied are shame and guilt. Shame and guilt may work through different pathways to affect moral actions (e.g. Sheikh & Janoff-Bulman, 2010; Stanculescu, 2013). Three such pathways are: (1) the behaviour vs. self perspective, (2) the private vs. public perspective, and (3) the interpersonal-adaptationist perspective. In simple terms, authors such as Tangney (1990) argue that guilt is experienced when people do not personalise or globalise how they perceive their breaches of moral norms or rules, but attribute their feelings to the behaviour itself (i.e., "my behaviour was bad, but I'm not bad"). In contrast, shame is felt when people attribute their bad behaviour to their own character (i.e., "I'm a bad person", Tangney, 1990). The private vs public perspective, in contrast, suggests that guilt is experienced when people break moral rules undetected (i.e., privately) and shame is felt when their rule breaking is noticed by others (i.e., publicly). Evolutionary-based interpersonal-adaptationist perspectives on self-conscious emotions suggest that the extent to which these emotions are felt depends on the "social value" of the person affected (Sznycer & Lukaszewski, 2019). Another person's social value includes how much they might contribute to, or harm, the "fitness" of the person assessing their value. For example, a student may see their professor as having a high social value because the professor's good opinion of them, or sanctioning them for cheating, can be the difference between the student obtaining the social "fitness" of obtaining good grades. According to the functionalist evolutionary psychology perspective, a student will feel more shame when their cheating is noticed by their professor, who has a high value, than when it is noticed by a stranger. Conversely, they will feel more pride if their good academic performance is recognised by their professor than by a stranger.

Cohen et al. (2011) developed a measure of individual differences in people's proneness to experience shame and guilt. This measure has been applied within academic integrity studies to examine whether these individual differences are related to academic misconduct. Studies have found that both guilt-proneness and shame-proneness predicted reduced academic cheating (McTernan et al., 2014; Murdock et al., 2008). However, other findings have been inconsistent with these. In a study of adolescents, guilt-proneness but not shame-proneness was related to self-reported cheating behaviours (Stanculescu, 2013). It may be the case that some

students cheat because they are confident that they can regulate moral emotions such as shame and guilt, and thus, if they are put into a shame-inducing situation by cheating, they will "get over" these emotions (Farnese et al., 2011). Rettinger et al. (2012), for example, reported results of a study where shame responses led to more cheating because students who wanted to avoid feeling bad about their actions engaged in "neutralising" actions, like blaming others, to avoid the negative feelings.

Still, other recent research suggests that anticipating shame and guilt, specifically in relation to cheating, is an important influence on student's decisions to cheat. Curtis et al. (2022), asked students about their intention to engage in cheating by commissioning another person to write their assignments or take their online tests for them. They also asked students to rate how guilty they would feel if they got away with such cheating and how ashamed they would feel if they were detected cheating in these ways. They found that anticipated guilt and shame both correlated negatively with cheating intentions. That is, the more shame and guilt students anticipated feeling in relation to cheating, the lower their intention to cheat. Subsequent research suggests that specifically anticipating guilt and shame related to academic misconduct mediates the relationship between a general guilt and shame proneness and academic misconduct intentions (Curtis, 2023b). Similarly, Rundle et al. (2019, 2023) asked students to rate the extent to which they endorsed various statements as reasons why they did not outsource their assignments to other people. "I would feel shame, guilt or remorse" was among the most important reasons students indicated for not cheating.

Beyond anticipated guilt or shame, there are a range of emotions and emotional states that appear to drive or influence students' engagement in academic dishonesty. In the next section we review four of these: fear of failure; negative emotions; self-control; and anticipated positive emotions.

Other Emotional Processes that Drive or Motivate Cheating

Fear of Failure

When students who were sanctioned for cheating were asked about their reasons for cheating, they cited fear of failure, stress, and strain caused by various factors such as lack of time management and technology difficulties (Beasley, 2014). Fear of failure is the motivation to avoid experiencing negative emotions, such as embarrassment and humiliation, as a consequence of failure (Atkinson, 1957; Ifeagwazi et al., 2019). Although some students may have dispositional tendencies towards fear of failure, others experience outside pressures to attain high grades, such as scholarship or program requirements (Curtis & Popal, 2011; Diekhoff et al., 1996; Passow et al., 2006). These pressures to avoid failure may have several consequences including discouraging students from taking challenging courses or avoiding certain majors to maintain their GPA. However, the focus on performance goals (i.e., getting good grades) over mastery goals (i.e, learning) is associated with cheating (Yang et al.,

2013) and therefore, it is not surprising that those higher in fear of failure are more likely to cheat on an exam (Ifeagwazi et al., 2019). Fear of failure also interacts with other behavioural factors to predict cheating such as mental and behavioural disengagement, motivation, and procrastination (Mih & Mih, 2016).

Negative Emotions

Stresses have been routinely connected with unethical behaviour in the criminology literature, giving rise to a whole class of "strain" theories that incorporate various forms and sources of distress into explanations for why people commit crimes (Agnew, 2008). Eaton et al. (2023) undertook a review of studies that have explored connections between academic integrity and students' mental well-being. In reviewing this literature, they concluded that the preponderance of the research had examined negative emotions, rather than positive aspects of well-being such as resilience, and negative behaviours like cheating rather than positive behaviours like compliance with honour codes. They also found that a great deal of the research that they reviewed focused on external stressors and strains that potentially contribute to students' decisions to cheat, e.g., exam pressures. Interestingly, they also found that the literature was focused on emotional precursors to cheating, rather than emotional consequences of cheating.

Several studies have explored whether negative affect influences academic cheating directly or mediated by other psychological variables. Some of these studies have established a relationship between negative emotions and a positive attitude towards cheating (Fu & Tremayne, 2021; Tindall & Curtis, 2020). However, as Tindall et al. (2021) point out, attitudes do not always align with behaviours; therefore, they tested the direct and indirect relationships between negative affect and both positive attitudes towards plagiarism as well as intentions to plagiarise and actual plagiarism. They found that negative affect directly predicted plagiarism and indirectly affected plagiarism mediated by subjective norms and intentions. Their findings supported suggestions that emotions can have a direct or indirect effect on cheating behaviours. Interestingly, when they added self-control as an additional mediator, it was also related to both negative affect and plagiarism.

Self-Control

Lack of self-control has been shown to correlate with academic cheating (e.g., Curtis et al., 2018; Yu et al., 2017). Kotabe et al. (2019) point out that self-control is often needed to moderate the pursuit of a short-term emotional goal, such as pleasure, because of the concurrent expectation that acting to satisfy that emotion will create a different and opposing negative emotion such as guilt. As anyone with a weight loss goal will tell you, this is the exact situation confronting them when they are offered a piece of cheesecake. Gottfredson and Hirschi (1990) contend that people's engagement in unethical behaviour is increased when low self-control is combined with an

opportunity to misbehave. This relationship was found in a study of academic cheating, with both self-control and perceived opportunity acting as significant and interacting predictors of academic dishonesty among students (Bolin, 2004).

Although it is a controversial idea (c.f., Dang et al., 2021; Friese et al., 2019; Hagger et al., 2016), the ego-depletion effect suggests that fatigued psychological resources can cause people to have diminished self-control, and consequently act more on their impulses and emotions (Baumeister & Tierney, 2012). This effect has been tested in studies of college student cheating (Mead et al., 2009), with results demonstrating that students are more likely to cheat when their self-control resources are reduced by demanding tasks. Pre-school, children who were given a cognitively demanding task before playing a dice-rolling game, were more likely to cheat in the subsequent game (Keller & Kiss, 2021). This finding suggests that if students' self-control is depleted by the demands of their school work, a test set at the end of a school day may create a high-risk combination of low self-control and a concurrent opportunity to cheat (Keller & Kiss, 2021).

Anticipating Positive Emotions

Nearly a century ago, Carter (1929) asked students their opinions about why they, and other students, might cheat on college assessments. An interesting observation by students in his study was that other students might cheat "for the thrill of it" (Carter, 1929, p. 351), and they may even anticipate satisfaction both from cheating and getting away with it, and lying about cheating and getting away with lying! More recently, Sierra and Hyman (2006) tested the effect of anticipated emotions on intentions to cheat among undergraduate students. Specifically, they studied anticipated *regret* and anticipated *elation* on cheating intentions. They found that students' willingness to cheat was influenced more by the positive emotion of anticipated elation than by the negative emotion of anticipated regret. They explain this finding through students' beliefs about optimal outcomes, i.e., not being caught. Because the majority of cheating incidents are never discovered or reported (e.g., Awdry et al., 2022; Beasley, 2016), some students have likely already experienced the thrill or elation of getting away with cheating, which would also influence their future decisions to cheat. This finding may be of particular interest with regard to students who repeatedly engage in academic misconduct, who may, in fact, account for most instances of cheating (Curtis & Clare, 2017).

The Emotional Consequences of Cheating

Eaton et al.'s (2023) review did not identify any studies that examined well-being after cheating or the potential emotional consequences for students who are caught cheating. However, this may have resulted from the scope of their review's literature search criteria, as some studies exist that do provide insights into this issue. Beasley

(2014), for example, asked college students who were reported for academic misconduct to answer the following question: "*What, if anything, would have stopped you from committing your act of academic dishonesty*?" Students responded that the shame they experienced after being reported for academic misconduct would likely have deterred them from cheating in the first place (Beasley, 2014). In their responses they also mentioned other feelings they had experienced, like disappointing family and friends, mourning the loss of learning, and feeling bad about hurting their peers and professor. Pitt et al. (2021) also found that students who went through a formal process of being investigated for cheating felt intense stress and believed the experience negatively affected their relationship with their professor and peers. Beasley (2014) referred to such experiences as tangential or latent consequences, not the official punishment or sanction but rather the feelings students experienced after going through the misconduct process.

Researchers have experimentally investigated negative and positive emotions experienced *after* cheating and found that the extent of cheating may relate to how strongly one experiences negative affect. Peer et al. (2014), for example, found that those who cheated the most, reported the highest levels of negative affect. However, individuals can reduce their negative feelings through moral disengagement or neutralisation.

Emotional Regulation

Decades of research on human behaviour has demonstrated that we are driven to reduce or eliminate the psychological tension that occurs when our actions and beliefs do not align (Festinger, 1957). The negative feelings one experiences after acting immorally create distress and we are motivated to reduce that distress by either changing our actions or changing our attitudes or cognitions. One way to reduce distress is through temporary moral disengagement or neutralisation, justifications of our actions. Some scholars contend that moral disengagement must take place for many students to engage in academic dishonesty. Stephens (2017) argues that because most students engage in academic dishonesty while maintaining a self-image of a "good person", they primarily rely on reducing cognitive dissonance through changes in cognitions rather than changes to behaviour. These changes in cognitions are conceptualised as moral disengagement or neutralisation strategies that allow the student to attribute their behaviour to external sources, thereby reducing personal responsibility and avoiding negative feelings about themselves (Stephens, 2017).

Substantial empirical evidence has documented the use of neutralisation strategies among students who cheat (e.g., Beasley, 2014; Diekhoff et al., 1996; Rettinger & Kramer, 2009) and a recent meta-analysis concluded that neutralisation was the strongest documented psychological predictor of academic dishonesty (Lee et al.,

2020). Researchers have even claimed[1] that humans "forget" the rules after cheating by engaging in motivated forgetting of the rules after committing a moral transgression (Shu & Gino, 2012). Such emotional regulation strategies, as applied to the Emotions and Anticipated Emotions variables in Fig. 5.1, may influence the strength and impact of connections between emotions, anticipated emotions, cheating, and post-cheating emotions.

Using Emotions and Emotion Expectancies to Deter Cheating

Given that felt and expected emotions may be precursors of cheating, it is possible that changing students' emotions, or their emotional expectations, may reduce their engagement in cheating (Curtis & Tindall, 2022). For example, Zhao et al. (2022) tested whether telling children stories about characters' positive and negative emotional reactions to cheating or rule following would reduce their likelihood of cheating. The researchers told kindergarten students (aged 3–6 years) stories about another child's reaction to acting honestly and following the rules versus their emotional reaction to violating the rules. They then played a card game with the children and, at a pre-planned point in the game, the researcher left the room, giving the children a chance to cheat by peeking at the researcher's cards. Presenting the Rule-Adherence-Happy condition did not reduce cheating. However, telling children about another child's negative reaction to rule violation reduced cheating from 90% to 50%, but only in the older children (aged 5+). Older children have a better developed cognitive facility to understand the analogy of the earlier story about cheating and emotions to the game they were playing – doubtless college students could understand such an analogy too. In the next section, we present five strategies for reducing academic misconduct that build on the research we have reviewed on connections between emotions, emotional processes, and academic cheating.

The Five Strategies

The following strategies connect the research on students' emotional experiences to strategies that could *reduce* the likelihood of academic dishonesty with the goal of creating a learning environment that promotes honesty and integrity. Faculty and staff working with college students should consider the following strategies to inform their teaching, as well as in the development of academic integrity policies,

[1] We have deliberately called motivated forgetting a "claim" rather than an "observation" because the validity of the data reported in the study cited here are questionable, see: https://www.chronicle.com/article/a-dishonesty-expert-stands-accused-of-fraud-scholars-who-worked-with-her-are-scrambling

preventative measures, programming, and interventions with students who have cheated.

1. ***Address emotional expectancies or anticipated emotions and use them as deterrents***

Faculty should capitalise on emotional expectancies regarding academic misconduct and use them as a deterrent for cheating. Experimental evidence suggests, for example, that we may be able to counteract the anticipated positive emotions related to cheating with cautionary tales. As Zhao et al. (2022) demonstrated, telling children about another child's negative emotional reaction to breaking a rule during a game dramatically reduced cheating. These strategies to prevent cheating may include addressing students' anticipated experiences of the positive emotions related to successful cheating attempts. Another effective strategy is to clearly state the integrity expectations and policies and how instances of academic dishonesty will be handled (Simola, 2017). For example, in an experiment with college students, Bing et al. (2012) used a realistic course warning paired with an honour code reminder to effectively reduce homework cheating by 75%. In their study, faculty warned students that cheating had occurred in the class during previous semesters and described how it was detected and handled. In other words, they noted both the negative consequences for cheating and the fact that students did not get to experience the "thrill" of getting away with cheating.

There is an important caveat with regard to informing students about academic integrity policies. When faculty include syllabus statements about academic integrity, but fail to discuss, explain, and remind students about it, students may perceive it is unimportant or irrelevant (Staats & Hupp, 2012). Thus, it is important to *discuss* these with students and not just include it in the syllabus. When students understand the honour code or the academic integrity policy, they are less likely to cheat (Jordan, 2001).

2. ***Don't underestimate the importance of promises and reminders***

Tatum (2022) has recently reviewed the experimental work on moral reminders, with special attention to the role of honour pledges and reminders in honour code systems. The evidence suggests that moral reminders, such as honour code reminders, can be used to thwart students' neutralisation and/or moral disengagement. Stephens (2017) argues that making integrity policy or honour code reminders salient to students, who may otherwise claim ignorance or even avoid the information, is key to helping students maintain their moral responsibility. Stephens (2017) further advocates for faculty and administrators "to create (unavoidable) situations that lead students to know and understand their obligations related to academic integrity" (p. 6). Researchers have demonstrated that making a verbal commitment not to cheat has a significant impact on reducing cheating during a game, even for children as young as 5 years old (Heyman et al., 2015). These findings suggest that this approach of promise-making added to reminding could also work for young adults. In addition, Dix et al. (2014) found that students' commitment to an honour

code can be strengthened when they are satisfied with the code and engaged in its implementation and benefits.

3. ***Remember the importance of peers***

Although we often conceptualise cheating as a moral decision, others argue that it is also a social decision and that students may view it as a social convention (Murdock & Stephens, 2007; O'Rourke et al., 2010). Therefore, any set of strategies created to deter cheating must include a discussion of the role of peers. As discussed elsewhere in this book (see chapter by Curtis, 2023a), knowledge of peers' cheating, whether directly observed or just holding the perception that peers are cheating, predicts academic dishonesty. Peers have the potential to influence the academic integrity climate in both positive and negative ways. Peers, in fact, may be a better deterrent against cheating than instructors or institutional policies. When there is a peer culture that disapproves of cheating, students may fear having to face their peers and be accountable for their actions (as in the case of student-run honour code systems). There are several benefits of an honour code – first, the perception that one's peers are cheating is lower (Arnold et al., 2007) and the perception that one's peers are accepting or approving of cheating is also lower (Pauli et al., 2014). Thus, a key recommendation from several studies (e.g., Lancaster, 2022; Stone et al., 2010) is to engage students in communicating to their peers that cheating is unacceptable.

4. ***Accountability matters, but avoid shaming***

As institutions consider their process of adjudicating breaches of academic integrity, they should consider the range of approaches to addressing misconduct that include punitive (i.e., sanctions) and educational approaches (e.g., writing lab contract), as well as restorative justice practices. An important takeaway message from the research on emotions and academic misconduct is that accountability is important for the individual student as well as faculty, peers, and the institution.

Research on confessions demonstrates that people who cheated and then subsequently fully confessed experienced less negative affect than those who cheated and only partially confessed (Peer et al., 2014). Students who partially confessed experienced the highest level of negative affect even when compared to those who cheated and did not confess at all (Peer et al., 2014). Thus, owning up to one's violations may bring with it a clearing of one's conscience that leads to less negative emotions.

As implied earlier, the prospect of students anticipating elation or thrill from successfully cheating could be reduced by increasing the expectation that cheating will be detected. Research on cheating suggests that students who may be most likely to cheat are also most dissuaded from doing so by the fear of being detected and/or punished (Rundle et al., 2019, 2023). For serious misconduct, it is recommended that consequences are substantial and that students should be made aware that other students had been detected and sanctioned (Bretag et al., 2019). Importantly, however, Rettinger (2017) suggests that instructors should avoid shaming students because that could lead to more externalisation and an increase in neutralising attitudes. He argues that instructors should frame incidents of cheating as mistakes

("a bad choice") rather than a moral failing and connect that choice to future decisions about the students' personal goals, values, and self-concept. Thus, informing students that others have been disciplined for cheating should be done in general terms rather than by personally identifying the students who had cheated.

5. ***Incorporate programming that addresses negative emotions***

There are numerous potential sources of negative emotions in students' lives and in their study environment. For example, negative emotions can be elicited by dissatisfaction with the instructional context (Bretag et al., 2019). In general, most college students are young adults, and young adulthood can be an emotionally-charged stage of life, with higher rates of anxiety and depression (Larcombe et al., 2016). It is also important to note that students may be differentially susceptible to negative emotions. For example, students who are not well supported financially or are studying in their non-native language may have more stresses and worries than students who do not face these barriers (Bretag et al., 2019; Sabbagh, 2021). Tindall et al. (2021) suggest that institutions should provide programming that addresses emotions and emotional reactions to the stress that students experience while in college.

The findings of Carpenter et al. (2002) suggest that connecting with students and developing a strong rapport may deter students from cheating. When instructors focus on student learning by expressing concern for both their academic performance as well as their overall well-being, it is harder for students to rationalise cheating in their courses by blaming instructors. Gratitude may be elicited by faculty showing care and empathy for students, and gratitude is associated with reduced academic misconduct (DeSteno et al., 2019). Instructors may simultaneously show empathy, elicit gratitude, and reduce stresses on students with simple steps such as allowing flexibility around assessment deadlines.

Areas for Future Work

Within this chapter we outlined research into the relationships between emotions, emotional expectations, emotional regulation, and cheating. Although we have provided a representative summary of the literature on these topics, it is apparent that research on academic cheating has not covered the full range of human emotions. Estimates vary on how many emotions and affective states are distinguishable, with seminal research suggesting the existence of six basic emotions (Ekman & Friesen, 1971) and recent work suggesting that there are 27 semantically-distinct categories of emotions (Cowen & Keltner, 2017). Our review reflects some of the useful findings on academic cheating and emotion, but it is biased by more research being available on some emotions than on others. There is potentially a cornucopia of research opportunities in examining connections between under-studied emotions and cheating.

Some of our suggestions for action are based on research findings of connections between emotions and academic cheating, but not on research into the effectiveness of these strategies. For example, programs to help students manage negative emotions are a logical extension of research findings such as Tindall et al.'s (2021), but there is no evidence that we can find of a student mental well-being program in a college having a measured impact on rates of student cheating. Therefore, further research to substantiate the efficacy of some of our proposed strategies is still needed.

Researchers have noted that cultural differences (e.g., collectivism vs individualism; e.g., Tremayne & Curtis, 2021) may play a role in academic misconduct. Breaking norms can be both psychologically uncomfortable and emotionally distressing. Yet, sometimes it is hard to break a collectivistic norm of helping others. For example, in Nigeria providing another student with answers during an exam is seen as unethical by most students, but doing so still tended to be the norm in a study of Nigerian students (Korb, 2010 as cited in Ifeagwazi et al., 2019). Thus, further cross-cultural research is needed to understand the generalizability and boundary conditions of connections between emotions and cheating.

Conclusion

In this chapter, we have reviewed theories and research from psychology and presented a model or structure that connects emotions to student cheating. There are several salient connections between emotions and cheating, including anticipated or expected emotions, moral and self-conscious emotions, and currently experienced emotions. In general, anticipating feeling bad (such as guilty or ashamed) may dissuade students from cheating but feeling bad now (such as stressed or fearful) may contribute to students cheating. In addition, emotional regulation, such as managing emotions via neutralisation, is a crucial process in understanding students' cheating behaviour. Extending from such findings, we proposed five strategies that can be employed by faculty, staff, and institutions to reduce cheating and promote academic integrity: (1) Address emotional expectancies or anticipated emotions and use them as deterrents; (2) Don't underestimate the importance of promises and reminders; (3) Remember the importance of peers; (4) Accountability matters, but avoid shaming; (5) Incorporate programming that addresses negative emotions. Although these strategies are logical extensions of research findings, it is notable that those findings are predominately from research in Western, educated, industrialised, rich, and democratic (WEIRD) educational settings. Further research is needed on the impact of the range of emotions on students' cheating, the efficacy of some strategies, and the cross-cultural applicability of the findings and strategies discussed in this chapter to less-WEIRD contexts.

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Chapter 6
Developing and Implementing Policies for Academic Integrity – Management of Change

Irene Glendinning

Abstract A robust approach to academic integrity is an essential requirement for a higher education provider to ensure that academic and research quality and standards remain strong and are not compromised by malpractice and corruption, by staff, students or from external influences. Even institutions with a well-established institution-wide strategy for academic integrity should have on-going monitoring and regular reviews, to ensure that their approach, policies and procedures are operating as intended and remain fit for purpose to counter ever evolving risks and threats. In parts of the world where academic integrity is weak, there are often other priorities or barriers, higher education institutions especially lack appetite to change the status quo. However, even in countries with a long history of policy development, such as UK and Australia, it can be difficult in some institutions to change hearts and minds about the urgency of strengthening responses, both to old threats, such as plagiarism and exam cheating, and newer threats, such as sharing of materials, questions and answers to on-line exams and contract cheating, in all its guises. In this chapter I will draw on my own research and my experience of leading institution-wide reviews, combined with guidance and research from others, to suggest approaches that may be useful in different contexts, to successfully develop and implement policies relating to academic integrity that are applicable to the local context.

Keywords Academic integrity · Change management · Quality assurance · Academic standards · Higher education · Institutional strategies · Institutional policies · Holistic approach

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Introduction

Policies and procedures for academic integrity, research integrity and ethics need to be fit for purpose, in addition to being efficient and effective in their implementation. The evolving nature of the threats to integrity leads to the need for policies to be monitored and regularly reviewed. These requirements imply that there should be someone with the responsibility for managing this important monitoring and change management process. This chapter will explore the demands of such a role and use a case study to illustrate how policies can be developed, implemented, adapted and managed over time. There will also be consideration of what can go wrong and how to respond.

The chapter builds on ideas and findings from four main sources, Kotter's Eight-Stage Change Model (Kotter, 2012), the Scorecard for Academic Integrity (SAID) (Glendinning, 2017), together with findings from two Australian studies, the Academic Integrity Standards project (Bretag et al., 2011; Bretag & Mahmud, 2016) and the follow-up Exemplary Academic Integrity project (Bretag et al., 2019; Bretag et al., 2020).

As the title of this chapter implies, change management is an important part of the process of setting the strategic focus and developing and maintaining institutional policies and procedures for integrity. This is a difficult area to manage, because, although we are largely focused on academic integrity, the broader concept of integrity, covering academic, research, ethical and institutional, impinges on almost every part of a higher education institution's functions (Glendinning, 2022). This means that an inclusive and holistic approach needs to be adopted when reviewing and revising these policies, to avoid unintended side-effects.

Change Management

The seminal Eight-Stage Change Process developed by John Kotter centres around change management in commercial business rather than for education (Kotter, 2012), but this model can be adapted for managing the academic integrity strategy and policies in higher educational institutions by making it cyclical, and adding specific context, see Fig. 6.1.

Having a cyclical process reflects the reality that academic integrity policies are not static, they need to adapt in response to institutional changes as well as evolving and emerging threats. The model can be used to guide the process of change and prevent potential pitfalls. This model could be adapted further by adding an inner iterative cycle around points 3, 4 and 5. It is also worth noting that the timescales of these steps are not uniform, some will often need considerably more time to complete than others. The prevailing institutional culture needs to be considered throughout the change management process and beyond. The changes will not be successful unless all those involved in the process appreciate the benefits and accept

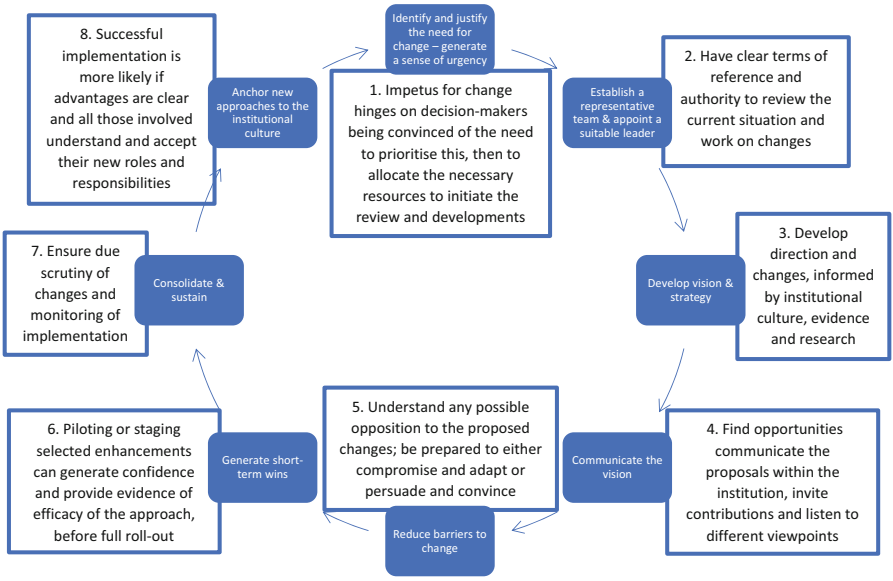

Fig. 6.1 The change management cycle: Academic integrity. (Adapted from Kotter, 2012, p. 18)

the reasons behind them and also changes to their own role. Ideally, there should be a consultation process to capture viewpoints from a wide range of stakeholders, especially students. Training, guidance and support must be made available both in advance of the implementation and during the roll-out, to ensure the potential for confusion is minimised.

Having established a model for the change management process, it is important to clarify what is included under academic integrity policies and what characteristics make them effective and complete.

Benchmarking Academic Integrity Policies

A definition is needed of what is included and excluded when we refer to academic integrity policies. Adapting an earlier model with the working title Scorecard for Academic Integrity Development (SAID), developed several years ago by the author, together with Tricia Bertram Gallant and Jennifer Eury, an institution's academic integrity strategy, policies and related procedures, can be evaluated by considering their approach to these ten categories:

- *Institutional commitment and resources for supporting the academic integrity strategy*
- *Clear and consistently applied policies and procedures for academic integrity*

- *Fair and proportional outcomes for integrity breaches, applied across the institution*
- *Engagement and buy-in towards strategies for deterring academic integrity breaches*
- *Institutional learning culture and values*
- *Student leadership and support for the institutional strategy*
- *Transparency, openness, effective communication at all levels*
- *On-going evaluation, monitoring, reviews to enhance strategy, policies and systems*
- *Engagement with research into academic integrity*
- *Understanding of acceptable academic practice, in line with international norms*

(adapted from Glendinning, 2017, pp. 27–8)

A self-assessment questionnaire to evaluate the maturity of an institution's responses towards academic integrity makes use of these ten categories and related questions (ENAI Surveys, n.d.). The ten categories will be used next to guide the discussions.

Institutional Commitment to Academic Integrity Strategy

Adopting a whole-institution approach for developing a culture of integrity requires commitment from the very top of the institution (Kotter, 2012; Bretag & Mahmud, 2016). Institution-wide commitment can be broadly communicated by including statements about integrity in institutional mission and value statements, but this must be meaningful, not an empty gesture. When approached seriously, academic integrity is expensive. Adequate resourcing is an essential requirement to ensure that the strategic commitment can be delivered. A committed senior leadership will ensure that any necessary resourcing and support are provided. Failure to resource activities to educate and deter malpractice, including maintaining robust systems and processes to monitor and handle breaches to integrity (Bretag & Mahmud, 2016), is likely to cost the institution more in the longer term, not least in terms of poor reputation for quality from prospective students and graduates' employers.

One mark of an institution's commitment to academic integrity is the appointment of a suitably experienced person with responsibility for maintaining the institutional strategy on academic integrity and coordinating the implementation and monitoring of operations (QAA, 2022; Bretag & Mahmud, 2016; Kotter, 2012). Bretag and Mahmud refer to academic integrity champions, which is not necessarily a formal role, this can be anyone, staff or students, internal or external to the institution, who are leaders helping to drive positive change (Bretag & Mahmud, 2016).

Clarity and Consistency in Policies

At a very minimum, academic integrity policies must be consistent, proportional, and fair to all participants (Glendinning, 2017), which means both students and staff (academics/faculty and administrators). Ideally the way academic integrity is framed and managed should be institution-wide and apply to the whole community (QAA, 2022). The use of language should be positive, when possible, supportive and educational, rather than punitive, assigning blame (Bretag et al., 2011; Bretag & Mahmud, 2016). Written and spoken communications should talk about integrity rather than misconduct, when it makes sense, but using vocabulary that students and staff can understand, without ambiguity. It is a good idea to ask student associations and the institution's international office to check the wording for student-friendliness. Some institutions provide guidance in several languages, to ensure that international students are not disadvantaged (QAA, 2022), but this carries with it the need for updating all versions as changes occur.

Regarding consistency, care must be exercised to ensure that the student experience and outcomes relating to both education about integrity and sanctions applied for integrity breaches, are not affected by any differences in procedures in different parts of the institution (Bretag et al., 2011). Education and support should dictate both the process to be followed and be part of the outcomes. This will ensure that the reasons for the breach are fully understood and addressed, and that the student has no reason to continue to make similar mistakes.

Considering the negative side of the topic, there should be clear statements on what constitutes a breach of integrity, how allegations should be reported, recorded and managed, including who is responsible for generating evidence to support allegations, presenting and hearing the allegations and defence, adjudication on the evidence, deciding on the outcomes (Bretag & Mahmud, 2016).

Records of all academic integrity breaches need to be maintained to allow monitoring of trends and to determine whether measures to deter misconduct are effective (Bretag & Mahmud, 2016). Keeping detailed records for each case is essential to identify when a student continues to breach integrity, which may either be intentional misconduct or could be a sign that the student needs further guidance (Bretag et al., 2011).

Of course, breaches to integrity do not just apply to students and they are not confined to student assessments. Misconduct can happen in many other operational areas, including admissions and recruitment, (for example, use of fabricated credentials), teaching and learning, (such as bribery to change marks), administrative and academic functions, (including nepotism and fraud in the appointment of teachers), the conduct of research and, not least, scholarly publishing (Glendinning et al., 2019). The institutional strategy should encompass all possible threats to integrity and hold everyone in the institutional community accountable for upholding integrity.

Fair and Proportional Outcomes

Measures must be in place to ensure that the same type and severity of integrity breach results in equivalent outcomes. The actions taken in response to an upheld allegation against a student should serve the following purposes:

- To ensure no unfair advantage arises from the breach – for example zero mark, if the student is permitted to redo the work or take a replacement assessment, normally a cap should be applied to ensure that only a bare pass grade is possible;
- To put right any misconceptions and deficits in skills that gave rise to the breach – appropriate education, bespoke to the educational needs of the student;
- To discourage the student from any further breaches – additional training and guidance about the importance of academic integrity should be a mandatory element of the outcomes;
- To serve as a deterrent to other students – if students believe there will be no consequences, they are more likely to take risks.

An academic conduct investigation provides an opportunity to understand any pressures the student was under, financial, family, personal, and to provide support and guidance to help them to overcome their challenges. It is also important to support the student through any negative side-effects of their mistake or misunderstanding, for example, the need for the student to explain to family, employer or sponsor why their progress has been delayed, or why an additional course fee is due.

There should be mechanisms in place to determine what outcomes (sanctions or penalties) should result from different types of breach and how to categorise the level of severity of the action or conduct. There should be opportunities for appeals or reviews of decisions, but only on clearly stated grounds, to ensure that any potentially unfair outcome is duly investigated and, if justified, overturned. The people given responsibility for a specific part of this process must not have any conflicts of interest in that specific case and situation. In particular, the marker/grader identifying the problem should not be directly involved in making the decision about the allegation or what the outcomes should be for the student. Their role as educator of the student puts them at risk of threats, pressure or offers of bribery from the student, either not to report the breach or to change the decision. They and others involved in this process, including administrators, must be protected through the procedures from this potentially risky situation.

Some institutions include forms of sanction that are overtly punitive and do not directly align with the purposes listed above, such as imposing a monetary fine, requiring the student to do menial work or community service, or publicly naming and shaming students who have plagiarised or worse. It is the view of this author that any outcomes or sanctions for an academic breach must respect the dignity of the student and allow them the opportunity to correct misunderstandings or errors. Should a student not respond over time to the opportunities provided to learn from their mistakes and continue to breach integrity rules, then more stringent sanctions should follow, potentially leading to suspension of studies or expulsion.

Engagement and Buy-In

This point roughly equates to steps 4 and 5 of Kotter's model (Kotter, 2012): communicating the new strategy and initial ideas for changes and empowering people to contribute their views. Inviting a broad range of input to the development process when there is still capacity to influence and shape the changes, is a good way to identify, and then reduce, any barriers to change.

No policy has a chance of success unless those involved in implementing it understand the part they play, believe in and value it, appreciate why it is needed, and are aware of the consequences if they ignore their responsibilities. Academic integrity processes can be particularly unpopular because they take up valuable time that people would rather use for more positive pursuits. It is essential that all members of the community understand the part they must play and are convinced about the necessity of adopting these policies, irrespective of any inconvenience to them.

Having efficient procedures that are not overly bureaucratic, draconian, or viewed as irrelevant or time-wasting is part of the answer to getting buy-in from colleagues (de Maio et al., 2020). Involving and consulting a wide range of people from the community, including students, during the development and review of policies is an essential element in making sure that all perspectives are considered, and people feel ownership of the policies. This must be a genuine consultation, where all input is considered with due care, and opinions and ideas from all parties are taken seriously.

Once the policies and procedures are established, sharing them and inviting comments is a good way to pick up any further anomalies or exceptions that were not accounted for earlier. On implementation, provision of guidance, training and support for all staff and students can make a difference to the capacity for everyone to get engaged and help to make the roll-out an operational success.

Engagement is also about education on academic integrity and associated knowledge and skills. This is not just for students, but for everyone involved in academic integrity (Bretag et al., 2011; Bretag & Mahmud, 2016). Educators must not assume students bring these skills with them from their previous educational experiences. Sometimes students (and academics) may mistakenly believe they understand, for example, how to reference and why it is important, then they are surprised to find they are accused of plagiarism.

The first stage is to identify what skills are important, then continue to develop the skills throughout every student's journey, and also offer training for any staff who may need it. As a starting point, Fig. 6.2 presents the author's view, with input from a few colleagues, on what constitute relevant topics for learning and developing.

Sometimes topics that students do not see as central to the curriculum are not taken seriously. To ensure students remain fully engaged in developing these important skills, they need to be contextualised to the students' main study programme and delivered at a time, when they will be most meaningful and useful. The topics need to be taught by effective teachers, who have expert knowledge in these areas. A good way to ensure the subject context is delivered is for the subject

Fig. 6.2 Skills and knowledge related to academic integrity

expert and the skills expert to co-teach the topic. This approach has the additional advantage of helping to enhance the skills of subject teachers.

As suggested, education and professional development on the same topics can also be beneficial to academics and other staff in the institution, not least for them to appreciate how to design and present assessment tasks that require students to apply what they have learnt. A well-designed examination or assessment task will not eliminate opportunities for academic misconduct, but it will make cheating more difficult and more likely to be noticed when it does happen (Dawson, 2020).

Learning Culture and Values

The internal culture and ethos of an institution will dictate how academic integrity is viewed within the institutional community and what is required in terms of strategic direction. It would not be feasible, for example, to take the strategic focus and operational policies and procedures in the author's institution and successfully transplant and implement them in a university in Albania, or even in the USA or Germany. The approach adopted by any institution must take into account the norms, local customs and expectations of all parties involved, which can be very different, even for institutions within the same country (Curtis, 2023). This point aligns with the adaptations to Kotter's eighth step, taking into account the underlying norms within the institution when introducing and embedding new approaches, for

example, affecting learning, teaching and assessment methods. Implementation will almost certainly require changes to thinking and procedures (Kotter, 2012). When changes require members of the institutional community to accept new concepts and values, more time should be allowed, combined with careful planning and training.

Irrespective of local culture and norms, there are certain characteristics that all institutions should aspire to. Policies should encompass various codes of conduct and guidance for different community members and provision for education and training of different parties. There should also be clarity on what procedures to follow for different events, and who is responsible for different decisions. Academic integrity is central to teaching, learning and assessment. The design of assessments, how they are embedded within the learning process and how they are monitored and delivered, can either provide or obstruct opportunities for students to cheat. The academic skills that students bring with them, plus the expertise that they acquire during their studies, as set out in Fig. 6.2, can make or break their student journey.

There is need to instil in both students and staff the criticality of integrity to the well-being of the institution and its reputation. The value placed by other people on the employability of graduates and all qualifications and credentials awarded by the institution, is underpinned by its approach to quality, standards and integrity and largely defines its reputation.

Reputations can also be sullied by inappropriate conduct of employees of the institution, particularly senior leaders (Adams, 2017; Singh, 2018; Bik, 2022). Attention to integrity also applies to every operational function of an educational institution, especially promotion and marketing (Bradley, 2018), recruitment and admissions (Besser & Cronau, 2015; Redden & Jaschik, 2015), scholarly research (Bik, 2022; Piller, 2022), and academic publishing (Eaton, 2018; Glendinning et al., 2019; Glendinning & Eaton, 2023).

There has been very little attention in the literature about maintaining standards and integrity in partner institutions and remote and offshore campuses. In such cases, the parent institution delegates responsibility for some or all the teaching, learning and assessment, but is still responsible for the standards and quality of the qualifications awarded in its name. Having less control does not remove the obligation for accountability of the institution. Any partnership agreements should include the requirement for regular reviews of the management of academic integrity, together with on-going monitoring of operations by the partner, with oversight, support and guidance if needed from the institution (TEQSA, 2022). When sharing and devolving responsibility to others, including agents, partners, subsidiary institutions and remote campuses, the institution should make clear how academic integrity is to be promoted and managed, how consistency in student experience, outcomes and sanctions for breaches can be maintained, and the processes for monitoring and frequency for reviews (TEQSA, 2022).

Acknowledging that integrity applies to the whole institution's academic and research community is an essential starting point. Monitoring the efficacy can be quite challenging. This is an area where more attention is needed.

Student Leadership

Most guidance on developing policies for academic integrity emphasise the need to involve students in the process to make sure that student needs are understood and taken into account (for example: Morris, 2011; QAA, 2022; TEQSA, 2017; Bretag et al., 2019; Bretag & Mahmud, 2016). Going one step further, it is highly desirable for students to demonstrate leadership, ideally to strongly support the institutional strategy. Student leaders and representatives should be engaged as partners during formulation or revision of the institutional strategy, development of policies and procedures, and also in the implementation and on-going operations. This can be achieved though having representatives from the local student association on the review team and steering group. It is a good idea to devise a means to make it easy to capture input from students at any time, for example, by using a dedicated secure and private email mailbox that students are encouraged to post to. Understanding student perspectives is not just an add-on feature, it is central to any effective academic integrity strategy.

Student leaders should be encouraged, through funding and practical support, to initiate their own awareness-raising campaigns and research into aspects of academic integrity. Many student associations are autonomous and, therefore, not bound by the same obligations as staff employed by the institution. This means that they can provide independent support for students facing allegations of academic integrity breaches. They can also capture (and then anonymise) important evidence about the student experience when facing allegations, that would be difficult, due to conflicts of interest, for researchers within the institution to collect.

In some institutions having an "honor code" system is part of the strategy for involving students and promoting a culture of honesty and integrity to students. The author has not seen enough evidence to be convinced about the value of this type of initiative for using in a UK context; it is largely associated with universities in the United States of America (Hammack, 2022; McCabe, 2016; Rettinger & Searcy, 2012). However, this is certainly an approach that is worth considering, in the right context.

Transparency

The underlying strategy or philosophy and roles of different participants in the process should be transparent, openly accessible, and reflected in the way the policies are framed. Every member of the community should know where to find details of the policies and they should be written in clear and unambiguous language (Bretag et al., 2011; Bretag & Mahmud, 2016). Educational options, guidance and training should be freely available, be easy to locate and access, for both staff and students.

Every member of the community should be able to work out, based on available policies and guidance, what outcomes apply for different academic or research integrity breaches. Procedures should exist for staff as well as students who breach integrity, although the procedures will need to distinguish between different staff roles, different situations (including allowing for staff who are also students), and different types of breach.

The rules, procedures and outcomes for non-academic breaches should be separate and distinct from those for breaches relating to academic and research integrity, because they have different impacts, implications and consequences for the institution and the individual. For example, if a current student is operating a ghost-writing service for other students, this may not strictly affect the integrity of their own academic work, therefore in my institution this would be a (very serious) disciplinary breach rather than an academic breach, but nevertheless, potentially leading to immediate expulsion.

On-Going Evaluation, Monitoring, Reviews

Management of change is important for academic integrity because, as alluded to earlier, the threats to integrity can change quite quickly. In addition, in a complex and/or devolved system, local variations to policies and procedures can gradually creep in and become normalised over time, overriding the approved holistic institutional strategy. For these reasons, the monitoring, review and revision process should be viewed as continuous and cyclical. Several guidance notes advise that if 3 years have elapsed since the academic integrity policy was last reviewed, then it is certainly out of date (Bretag et al., 2019; QAA, 2022). This author has a more nuanced view of the review timescale, based on her own experience.

At Coventry University Group, UK, similar to many other universities, an Academic Integrity Steering Group (AISG), chaired by the Academic Integrity Lead, meets three times each year to discuss the operational aspects of the policies and procedures, to pick up on any problems and challenges and to find solutions. The terms of reference of the AISG include the need to look forward, considering what more needs to be done to improve the systems in place and to address changing priorities and new threats. The AISG reports to the University's Quality in Learning and Teaching committee, which, in turn, reports to the Academic Board.

The Academic Integrity Lead serves as overall coordinator, pro-actively and reactively picking up on problems and investigating and advising on unusual incidents, working closely with the legal team, associate deans (panel chairs), the senior team and central registry. She also provides regular guidance and training for staff and student representatives. The routine operational responsibilities are devolved to faculties and remote campuses and subsidiaries. With close on-going oversight a three-year review cycle would be too frequent. Therefore, a major review every 4 or 5-years would be more appropriate. The AISG has a broad membership, aiming to foster an inclusive approach and to make sure any specific needs of all

parts of this large University can be understood, and are kept up to date with developments. The AISG makes progress by establishing working groups, for example, to improve longstanding inefficiencies, and investigate new phenomena and emerging problems.

A set of academic integrity policies and associated procedures can be very complex, particularly for a large university, involving tens of thousands of students at different levels of education. For a small institution it may be possible to have a single academic integrity panel to hear allegations of breaches, consider evidence and make decisions, which are likely to lead to consistent outcomes. For institutions with large and diverse student populations, having a single institutional panel would be unsustainable, therefore the procedures are likely to need to be devolved to faculty level, as is the case in Coventry University Group, as described above.

The periodic review is important because this provides an opportunity to evaluate how well the overall strategy is working, if there is one, and, if needed, to adjust or redefine the approach and direction. It would make sense for an institution without any holistic approach to integrity to follow a very similar type of review, ideally for the whole institution, but if this proves difficult, it could be done at faculty or subject level as a starting point.

First of all, the terms of reference should be established for the review and appointment of the review leader, followed by the review team members. The central review team should be as small as possible, but should include representatives from every part of the institution, including students (Bretag & Mahmud, 2016). Ideally most of the review team members will have knowledge and experience of the current operations of policies and procedures. It would be good to have predefined aims and objectives, but these could emerge, or be further refined, after the review team convenes.

Familiarity with current thinking about what is deemed to be good practice can be gained by a literature review of to up to date research and guidance. The review group could invite some acknowledged experts in academic integrity policy development to speak to the team and to answer their questions. The recent universal adoption of Zoom and Teams and similar platforms, means that it is cost-effective to invite an advisor from anywhere in the world, without incurring expensive travel costs.

An important input to the review is any available statistics on academic integrity breaches, analysed in as much detail as the data allow. This can be useful evidence about the need for change and where to place priorities (Bretag & Mahmud, 2016). Review group members may choose to collect views of colleagues and students, perhaps using a questionnaire, interviews or focus groups. This could be done at the start, to find out what needs to be fixed, or to collect views on how to frame the revised strategy and policies, alternatively, the survey could be done after the new policies have been drafted, for collecting different viewpoints and suggestions for improvements. As running a survey of any kind is burdensome, it is not a good idea to run more than one survey for the same review. However, there are other ways to involve a wider group of colleagues and to regularly cascade information about the progress of the review. This involvement will help to ensure colleagues are not

unduly surprised by the impending changes and have an opportunity to contribute, which can help to add a sense of ownership.

For the institutional review led by the author starting in 2019, working groups were established to focus on specific elements of the review, each drawing in people from outside the central review team with expertise in the area under discussion. The working groups covered: use of technology, institutional regulations, education and training, operational procedures for managing breaches; reviewing the outcomes/penalties for breaches. Once these working groups were established, the central review team meetings were concerned with monitoring the progress of the working groups, receiving inputs and ideas, and setting goals and targets.

It is important to establish responsibility approving any proposed changes from the outset. Changes need to be justified to ensure they are fully costed and workable, and they do not introduce unsustainable burdens on individuals who are responsible for delivering them.

Implementation is perhaps the hardest stage of the review. The implementation plan could involve piloting radical changes to ensure that they are operationally feasible, before the major roll-out. An alternative approach is a staged implementation, where some elements of the new process are introduced first and allowed to bed-in (Stage 6, Fig. 6.1, (Kotter, 2012)), before introducing the full range of measures. There is always a tension between the need to improve processes as soon as possible and the measured approach to avoid a complete disaster. Whatever form of implementation is adopted, the key to success is effective planning and communication about the changes and providing timely training and support for all parties who are either directly or indirectly affected by them.

Engagement with Research and Development

As explained earlier, keeping up to date with the latest evidence and guidance on how to manage academic integrity on an institutional level is an important part of the review process. However, it is not just something to be done every 3 or 5 years, keeping up to date with guidance and advice is an on-going process. This is one reason why there should be leadership about academic integrity in the institution, ideally there should be a team of people with this as part of their job. Input from experts in this field could be captured through various means, a literature review, through attending conferences, taking part in networks and events, or inviting experts in this field to the institution, to brief colleagues, in person or via Zoom, Teams or similar.

However, as explained several times already, an institutional strategy, policies and procedures need to be the right ones for the institution. The advice provided needs to be adapted according to the culture and ethos of the institution, pushing boundaries where possible, but it is better to have something generally acceptable than moving too fast and failing altogether.

Common Understanding in Line with International Norms

When giving and receiving advice on institutional strategies, there are many factors to consider, as exemplified by these difficult questions:

- Are there any international norms on academic integrity?
- Who decides what is an acceptable position to take on topics relating to integrity, ethics, misconduct, corruption?
- Is it possible to reach a global consensus defining good practice on academic integrity within a higher education institution?

Based on the author's experience of conducting research in different countries, depending on who you ask, there are very broad perceptions and opinions about what academic integrity should look like and who is responsible for encouraging positive conduct or deterring negative conduct.

In many parts of the world there is an assumption that students will learn the necessary skills in their own time, (for example: how to write in an academic style, to select and incorporate sources and literature correctly within their own work, to be able to reference and cite appropriately and be adept at paraphrasing text (IPPHEAE, n.d.). Given that these skills are difficult to master, when even seasoned professional can get it wrong, there is growing awareness that all students need to be formally taught about the topics described in Fig. 6.2, otherwise they are likely to continue to make mistakes, leading to allegations of plagiarism, and perhaps worse (Howard & Jamieson, 2011).

Another source of difference is views on whether the same standards should apply equally to everyone in academia. In some countries, for example, in France, Finland, Poland, integrity is generally considered to apply at master's level or above and in many other countries only the final thesis is checked for plagiarism (IPPHEAE, n.d.), with less focus on academic conduct of undergraduate students than in other counties, such as UK, USA, and Australia (Glendinning, 2016). Several researchers argue that it is fine for students to copy-paste, use patch-writing to help them construct complex sentences, in a supportive learning environment, particularly while learning to write in a non-native language (Howard & Jamieson, 2011). If a student has not been guided or corrected on mistakes in their academic writing skills before they write their final thesis or start a master's or doctoral study programme, then it is unlikely they will appreciate that they have been getting it wrong, and may find themselves accused of plagiarism when the stakes are much higher.

Although several researchers have proposed ways to evaluate institutional policies (for example: Bretag et al., 2019; Glendinning, 2022), there is no global agreement on what should be included in such policies, or how they should be framed (Glendinning, 2022). However, it is proposed that most people involved in academia understand what is meant by ethical conduct in education and research and most of these people would agree how to define and recognise unacceptable conduct in an educational or research context.

Recommendations

As a general rule, anyone within a higher education institution (students, academics, administrators) with exemplary academic integrity policies should strongly agree with these statements:

- The leaders of this institution demonstrate a strong commitment to academic and research integrity;
- Every member of the community in this institution understands their role and responsibility for supporting and enhancing the culture of academic integrity;
- All students receive education, training, guidance about the academic skills and knowledge, as defined in Fig. 6.2;
- All staff (institutional leaders, faculty/academics, administrators, professional support staff, etc.) in this institution behave with integrity and are held accountable for their actions;
- The assessment tasks set by academic staff/faculty/professors require students to demonstrate and apply what they have learned;
- The academic integrity policies and procedures are applied consistently across all parts of the institution;
- I know where to locate details of the institutional policies and procedures for managing allegations of academic integrity breaches;
- My institution provides clear definitions of different types of breaches of academic and research integrity;
- Any outcomes or sanctions applied to students found to have breached academic integrity are consistent, fair and proportionate;
- Any outcomes or sanctions applied to students found to have breached academic integrity are adjusted according to the nature and severity of this case, to account for the student's circumstances and any previous inappropriate actions taken by the same student.
- In my institution, all the academic integrity breaches are detected and managed through the formal policies and procedures;
- Student leaders contribute as partners towards developing and improving academic integrity in this institution;
- An inclusive approach is adopted towards development, monitoring and review of the institutional strategy, policies and operational procedures for academic integrity.

Uncertainty or negative answers to the above questions signal areas of weakness, which have implications on the completeness and effectiveness of the current strategy. Allowing for institutional autonomy, the way each of the aims and objectives of the strategy is achieved may vary either within or between institutions, but for fairness and consistency, the impact on students should be broadly equivalent.

The approach to the development of policies is almost as important as the policies themselves. If policies are not accepted, not understood, too complex, time-consuming or draconian, then people will find ways to circumvent them. Involving

a broad range of colleagues and students as partners in the development process will greatly improve the chances of their efficacy and successful adoption.

As discussed earlier, the approach taken to implement the policies and procedures, piloting or phasing in, for example, can also improve their successful adoption. Communication and training are important elements in preparing for implementation. Operation of new or revised policies and procedures need to be monitored for unintended side-effects and unforeseen impacts. Care must be taken when making any necessary tweaks and adjustments, to avoid further disruption and confusion.

Depending on the level of on-going monitoring, any policies that have not been reviewed for 5 years or more are almost certainly out of date, because the landscape continually changes. Changes to students' study and learning environments can greatly impact on their security and capacity to behave with integrity and provide new opportunities for integrity breaches. In addition, the external threats to integrity are constantly evolving and shifting. Therefore, a regular cycle of policy development and review should be explicitly included in the policy statements and implemented.

Conclusions

Integrity in education and research can mean different things in different parts of the world. This concept can even have different connotations in educational and research institutions within the same country. The way the policies are framed, and the terminology used to describe them, can say a great deal about the ethos within an institution. A decade ago, many higher education institutions had "plagiarism policies", or "academic misconduct policies" (Glendinning, 2016). More recently national agencies and international networks are encouraging institutions to adopt more positive language, including academic integrity, research integrity and ethical conduct, and have an education-led approach rather than focusing on punishment (QAA, 2022; TEQSA, 2017, 2021; INQAAHE, TEQSA, & QBBG, 2020).

Several research projects have been conducted in recent years to explore how academic integrity is being managed in various parts of the world (for example: Awdry et al., 2022; Bretag et al., 2019; Bretag et al., 2020; Glendinning, 2016; Foltýnek et al., 2017; Glendinning et al., 2021; Dawson & Sutherland-Smith, 2017). All these influences are helping to promote positive changes to the shape, look and feel of policies, guidance and procedures within institutions around the world.

Although there is no universal approach to institutional policies, this chapter provides insights into common elements and the importance of managing change.

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Chapter 7
Evaluating the Impact of Implemented Academic Integrity Policy on Creative Works

Stella-Maris Orim and Anirejuoritse Awala-Ale

Abstract This chapter focuses on academic integrity policy implementation and its perceived impact in the social sciences domain. The chapter synthesises research findings and relevant literature in these areas, highlights prevalent implementation practices, perceived links to innovation and impact on development of individuals and society in general. Higher education is arguably set up as an environment where research, teaching, learning and assessment take place. It is where students are taught to develop skills in propositional comprehension, using both their literal and inferential knowledge, in connection with knowledge from other sources. This knowledge is then used to develop innovative ideas which could contribute to enhancing the lives of individuals and society more generally. Therefore, to develop skills in propositional comprehension, assessment tasks should be designed to encourage deep and sustained learning. Measuring the degree to which this learning has occurred is a vital function of higher education institutions. In order for deep learning to materialise into innovative ideas, higher education institutions need to implement consistent, holistic academic integrity policies. It can be argued that the meticulous implementation of well-conceived institutional academic integrity policies in a holistic manner fosters the right environment for emergent innovative ideas, which can have positive developmental impact on individuals, institutions, and society.

Keywords Academic integrity · Institutional policies · Academic integrity policy · Creative works · Theoretical frameworks

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Introduction

A central question in the academic integrity discourse is, why does academic integrity matter? The importance of academic integrity can be gleaned from the vast majority of research output on what it entails, how breaches of academic integrity can be curbed, and how it varies in different contexts. From another perspective, the criticality of academic integrity becomes apparent when the consequences of its absence are observed. Mehta et al. (2020) argue that there is a damaged relationship between academia, society and policymakers. The importance of research findings in informing policy is threatened by a crisis of trust emanating from the prevalence of academic dishonesty, which throws doubt on the credibility and trustworthiness of research papers (Hopf et al., 2019; Mehta et al., 2020).

Academic Integrity

Academic integrity is the foundation of the academic community, as it ensures that all members of the community are held to the same standards of honesty and trustworthiness. It comprises the expectation that members within the academic community would uphold certain values and virtues, including but not limited to fairness, courage, responsibility, trust, and honesty (International Centre for Academic Integrity, 2014). Therefore, it is expected that academic community members, which comprise teachers, students, and researchers, accept and exhibit the values of honesty and fairness when engaging in teaching, research, and learning (Eaton, 2021). Since academic integrity is vital to the practice of evaluating the achievement of module learning outcomes by students, it is imperative that it is embedded in a policy that is easily accessible, implemented consistently by the lecturers and the students get educated on the relevant academic writing skills (Bretag et al., 2011a; Morris, 2016, Glendinning, 2016).

Creative Works

Moving the focus from academic integrity per se to institutional policies specifically, it will be useful to focus on "creative works" which, in the context of this chapter relates to students' innovative or original submissions. Similarly to disciplines such as the humanities, the arts, and design, creativity and innovation are valued intellectual skills within the social sciences. Fundamentally, this chapter aims to search, identify, analyse, and discuss research papers which consider the link between a Higher Education Institution's (HEI) academic integrity policy and enhanced creative and innovative research output or submissions by its students. Establishing this connection is important because in their discussion regarding how HEIs can

minimise contract cheating, Newton et al. (2016) argued that "a focus on the positive issues of academic integrity may prevent and/or deter students from using ... third parties" (p. 265), this would, in turn, encourage innovative writing and creativity amongst students.

Institutional Policies Regarding Academic Integrity

Academic integrity policies can be described as codes or guidelines that outline the HEI's principles and values that underpin appropriate academic behaviour and the measures that will be taken when there are policy violations (Anohina-Naumeca et al., 2020). The creation of these policies does not automatically translate into academic integrity. Hence, it is recommended that academic integrity policies are communicated and consistently applied (Anohina-Naumeca et al., 2020) as their implementation is the key to achieving desired results. Having these policies is just the first step as the way an institution perceives and defines academic integrity in its academic policy will have an impact on how it is communicated and what the academic community understand as the requirement and hence, their response. Bretag et al. (2011a, b) reported on their preliminary analytical findings following the evaluation of academic integrity policies from 39 universities in Australia. They found that a great amount of these policies comprised punitive element in their approach, a similarly substantial percentage utilised an educative approach, trying to design their policies with a focus on academic integrity. However, they also observed that most of these policies did not provide a clear declaration of their responsibility towards academic integrity. There have been a few changes since then, as there have been continuous arguments for policies with an educational component in terms of institutional support. Research has shown that these institutional support and educational programs focused on academic integrity can result in a positive effect on the attitudes of student, leading to the reduction of academic integrity breaches (Sefcik et al., 2020).

A clearly written and comprehensive academic integrity policy helps to create a positive learning environment, as it ensures that students can focus on their studies without being confused as to what constitutes plagiarism or other forms of cheating. The creation and implementation of academic integrity policies within HEIs are more pertinent than ever. In 2004, the American author, Ralph Keyes, published his book titled *the post-truth era*, wherein he argued that the twenty-first century is a post-truth era characterised by the prevalence of dishonesty in all aspects of contemporary life (Keyes, 2004). Keyes's (2004) prescient argument is especially relevant in academia, where academic dishonesty has become a bane in HEIs (Eaton, 2021). Due to the ubiquity of academic dishonesty within HEIs, there have been discussions, analyses, and recommendations concerning appropriate strategies HEIs can adopt (Morris, 2018). Among these strategies, the development and implementation of institutional academic integrity policies have been widely recommended (Bretag et al., 2011a, b; Morris, 2018).

The rationale of institutional academic integrity policies as a means of curbing academic dishonesty is affirmed by findings from Harper et al.'s (2019) significant survey of Australian universities' teaching staff, where they observed that 51% (n = 431/840) of the staff agree and strongly agreed that university-wide academic integrity policies curbed the prevalence of contract cheating. Likewise, Anohina-Naumeca et al. (2020) confirmed that academic integrity policies are associated with reduced levels of academic dishonesty, as their findings showed that students who have higher understanding of their university's academic integrity policy had less tolerance for academic dishonesty. Anohina-Naumeca et al.'s (2020) findings emphasised an important point in the academic integrity policy discourse indicating that development of such policies is not enough, as they must also be communicated. Further research revealed that there are several elements which academic integrity policies must possess to ensure effectiveness (Bretag et al., 2011a, b; The Higher Education Academy, 2011). Following Bretag et al.'s (2011a, b) investigation of 39 Australian universities' academic integrity policies, they identified five of the core elements that academic integrity policies must have. The authors found that exemplar academic integrity policies must be: (i) accessible, and this entails conciseness, clarity, and readability; (ii) coherent, wherein there is a clear statement of purpose which pervades all aspects of the policy; (iii) clear with respect to the responsibilities of all stakeholders; (iv) detailed in its description of academic breaches and their implications; and (v) supportive in providing a system that enables stakeholders, including, students, to fulfil the requirements of the academic integrity policy (Bretag et al., 2011a, b).

Discussion

Academic Integrity Policies Impact on Student Creative Works or Innovative Writing

Several interventions can be put in place by educational institutions to foster student engagement, enhance their study experience and increase the chances of students producing submissions that are high in creativity and innovation. Morris (2016) identified some of these as academic integrity education, academic writing development and other innovative approaches. In line with this focus on having supportive interventions, Cutri et al.'s (2021) conceptual review was aimed at reframing the academic integrity perception from a focus on enforcement to that of an academic skill which needs development. The authors argued that some academic practices could foster an environment encouraging feelings of incompetence to flourish, resulting to unintentional academic misconduct. They recognised that clear instructions for academic integrity, developmental support for academic literacy skills, and supervisory practice changes that will support supervisor and student reflexiveness, arguing that with the use of these practical strategies academic integrity can blossom.

Arguably, there are still instances where academic integrity guidelines or policies may not be upheld in a consistent manner, Amigud and Pell (2021) examined one such case. They conducted a transnational survey of research, teaching, administrative and support staff ($N = 79$). Their findings suggested that there are instances where exceptions could be given on grounds of compassion such as personal welfare, first-time offenders, circumstances where there is the perception of unfair or discriminatory policy implementation, international students, where there are sincere mistakes, and for unique activities such as philosophical and ideological debates. Amigud and Pell (2021) argue that abnormality in policy aims in addition to dissimilarities in the attitudes of staff, beliefs and values will lead to added difficulties in implementing academic integrity measures. They also commented on the possible impact on the academic environment as a whole arguing that uncertainty of the expectations and unequal focus on student as opposed to that of staff will result to an environment with academic integrity policy implementation inconsistency and procedural unfairness.

Where academic integrity policies are implemented in a wholistic manner, fostering a culture of integrity (Guerrero-Dib et al., 2020), one way in which an academic integrity policy can impact student innovative writing will be by encouraging students to be more original and creative in their work. When students know that they will be held accountable for their work and that they will be punished for cheating or plagiarism, they may be more inclined to put in the effort to come up with original ideas and to properly cite their sources. This can lead to putting more effort into achieving higher quality writing and a greater sense of accomplishment for the student. In this same line of thinking, Beghetto (2010, p. 447) argues for creativity as a curricular goal, stating that "establishing a common circular goal of developing the creative competence of children is one way to help prepare students for an uncertain future". This is in line with the views of Vygotsky, the highly influential psychologist whose popular argument was to emphasise the importance of nurturing creativity in school-age children. He stated that the whole future of humanity will be accomplished through the imaginative creativity and orientation to the future (Vygotsky, 2004).

Another way in which an academic integrity policy can impact student innovative writing is by promoting fairness and equality in the academic environment or setting (Salmi & Bassett, 2014). When all students are held to the same standards, it ensures that everyone has an equal opportunity to succeed. This can be particularly important for students from disadvantaged backgrounds, who may not have the same resources or support as their more privileged peers. However, noteworthy is the fact that an academic integrity policy should not be used as a means of stifling creativity or originality. Instead, it should be used as a way of encouraging students to think critically and to challenge the status quo. By promoting a culture of honesty and integrity, students can feel free to explore new ideas and to take risks in their writing, knowing that they will be evaluated fairly based on the quality of their work.

Academic Integrity Policies, the Standard of the Research, and the Impact on Individuals and Society in General

Despite the ability to hypothesise that academic integrity policies translate to high-quality creative and innovative research output, there is a poignant dearth of academic research on the theme. Nevertheless, a credible argument can still be made for implementing academic integrity policies to achieve creative and innovative research works that would benefit individuals and society in general.

Due to the paucity of research findings that examined academic integrity policies' implementation effect on the creativeness, innovativeness, and quality of research output, a somewhat creative approach will be used to render this argument. The implication of the absence of academic integrity policies on the quality of the research output will be considered. In this regard, Brainard (2018) and Brainard and You's (2018) studies become pertinent. The authors draw attention to a trend regarding scientific research. They found that since 1997, a ten-fold increase in the number of retracted research publications has occurred, and 60% of those retractions were due to fraud (Brainard & You, 2018). The authors observed that poor editorial oversight and ethical policies were factors that catalysed the prevalence of articles which violated ethical principles, falsified data, used fraudulent data, and plagiarised (Brainard & You, 2018). Importantly, Brainard and You (2018) noted that since 2009, high-impact scientific research journals have consistently adopted model policies and standards to guarantee publication quality and minimise the possibility of retractions.

Thus far, the previous paragraphs have explained the implication of the absence of academic integrity policies. Further examination of the body of knowledge shows that the absence of guiding academic integrity policies and practices results in the publication of fabricated, fraudulent, and plagiarised scientific reports, which have had detrimental societal impacts (Hviid et al., 2019; Rao & Andrade, 2011). This problem is especially apparent in the case of Joachim Boldt, a German anaesthesiologist and a research leader at Klinikum Ludwigshafen, which is a German academic teaching hospital. As of 2018, 96 papers authored by Joachim Boldt had been retracted because the data used in those studies had been fabricated and had ignored ethical principles (Brainard & You, 2018; Marcus, 2018). Although the extent to which Joachim Boldt's action has harmed patients is unknown, what is undebatable is that he put patients at risk because several of his studies support unproven surgical treatments, especially the use of colloidal hydroxyethyl starch to enhance a patient's blood pressure during surgery (Brainard & You, 2018; Marcus, 2018). Zarychanski et al.'s (2013) study published in the wake of Joachim Boldt's retractions found that when trials were meta-analysed, and Boldt's 38 studies were excluded, the use of hydroxyethyl starch was not a viable surgical intervention, but rather a dangerous approach that resulted in acute kidney damage or death.

Another case like that of Joachim Boldt is Andrew Wakefield's, who, along with 12 other colleagues, published a fraudulent and ethically dubious paper in the *Lancet,* arguing that measles, mumps, and rubella (MMR) vaccines were likely to

result in pervasive developmental disorder in children, such as autism (Wakefield et al., 1998). At the time of publication, Wakefield et al.'s (1998) findings were widely publicised. However, their association between MMR vaccines and autism was refuted by epidemiological studies (Dales et al., 2001; Hviid et al., 2019; Taylor et al., 1999). Unfortunately, at that time, parents had already begun to cease MMR vaccinations for fear that it causes autism (Rao & Andrade, 2011). By 2004, 10 of Andrew Wakefield's co-authors published a retraction, citing the use of insufficient data to make the connection between MMR vaccines and autism. That same year, the *Lancet* admitted that there were financial interests that Wakefield and colleagues failed to disclose (Rao & Andrade, 2011). Nevertheless, the journal cleared Wakefield and colleagues of allegations of ethical violations (Rao & Andrade, 2011). However, by February 2010 Wakefield et al.'s (1998) paper was withdrawn by the Lancet, and they explained the occurrence of scientific misrepresentation and violations that were unethical (Rao & Andrade, 2011; The Editors of The Lancet, 2010). Opel et al.'s (2011, p.179) analysis of Wakefield's fraud found that it was "a failure of multiple systems within the research enterprise." Opel et al. (2011) cited the presence of informal customs within the research enterprise and cultural issues which enabled Andrew Wakefield to escape scrutiny at different levels and systems. Some time after this study, there were some measles outbreaks in the UK that may have been associated with reduced rates of vaccination. In a way, it can be argued that Opel et al.'s (2011) analysis spotlights the significance of research or academic integrity policies, which not only outline the values and principles of appropriate research behaviour but provide the impetus for measures to be taken in case of violations.

At this point, the discussion in the previous paragraphs has shown the possible consequences of the lack of implemented research and academic integrity policies. Such an absence creates the conditions that allow for the creation of fraudulent, fabricated, and ethically reprehensible research products that have social implications. Hence, institutional policies on academic integrity are important because they guide educators and students in adhering to appropriate research values and virtues (Eaton, 2021). These policies, and adherence to the expectations of academic integrity, have the potential to inspire researchers within HEIs to engage in rigorous, accurate and transparent research, thus, laying the foundation for quality and possibly creative research output (Baruah, 2021). Additionally, a fair and consistent academic integrity policy implementation can impact societal development by promoting a sense of trust and respect within the community. When individuals can trust that others are being honest and fair in their academic endeavours, it creates a sense of mutual respect and cooperation that is essential for the development of a healthy and productive society. This is especially important in a world where knowledge is increasingly being shared and disseminated through digital platforms, as it helps to ensure that the information being shared is accurate and reliable.

Another way in which fair and consistent academic integrity policy implementation can contribute to societal development is by promoting the development of critical thinking skills (Forawi, 2016). By requiring students to engage in original thought and analysis, and by encouraging them to properly cite and acknowledge the

work of others, academic integrity policies can help students to develop the skills and habits of mind that are necessary for success in today's complex and rapidly changing world. These skills are essential for navigating the challenges and opportunities of the twenty-first century and are crucial for the development of a society that can adapt and thrive in the face of change.

Overall, academic integrity is the basis of a fair and just society, as it promotes the principles of fairness, honesty, and regard for the intellectual property of others. These values are essential for the development of a healthy and productive society, as they encourage individuals to take responsibility for their actions and to contribute to the collective knowledge and progress of the community. The implementation of an academic integrity policy is crucial for the promotion of these values within educational institutions. By establishing clear guidelines for what is and is not acceptable behaviour in terms of academic work, such policies help to ensure that students and faculty members are held to high principles of fairness and honesty. This, in turn, helps to create a culture of academic integrity within the institution, which can then be carried forward into the broader society.

Conclusion

This chapter emanated from the premise that the meticulous implementation of well-conceived institutional academic integrity policies in a holistic manner fosters the right environment for emergent innovative ideas, which can have a positive developmental impact on individuals, institutions, and the society. Focusing on 'what happens in the absence of meticulously implemented academic integrity policies?' The findings from the reviewed sources showed that when the gatekeepers of knowledge, including HEIs and journals, fail to implement academic integrity policies, the outcome is the prevalence of plagiarism, data fabrication, and ethical violations amongst others. Where these forms of academic misconduct exist unhampered, there is a lack of student engagement in their learning process and, as a result, a dearth of innovative ideas as students generally bypass knowledge and the critical thinking pathways which birth creativity and innovation, not only in their submissions, but also in the workplaces and society at large. Therefore, as gatekeepers of knowledge, HEIs have a responsibility to curb academic dishonesty through the holistic implementation of academic integrity policies which de-incentivise the production of fraudulent and ethically dubious research products. By doing this, the meticulous implementation of well-conceived institutional academic integrity policies in a holistic manner will foster the right environment for emergent innovative ideas, which can have a positive developmental impact on individuals, institutions, and society at large.

In conclusion, we expect that the impact of a well-formed academic integrity policy on student innovative writing will be largely positive. The implementation of an academic integrity policy is an essential component of societal development, as it promotes the values of honesty, fairness, and respect that are essential for the

development of a healthy and productive society. By promoting a sense of trust and respect within the community and by promoting the development of critical thinking skills, academic integrity policies can play a fundamental role in shaping the future of our society through creative works.

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Chapter 8
Conducting Academic Integrity Research with Undergraduates

David A. Rettinger

Abstract Within the social sciences, academic integrity is often considered either as a problem to be solved or a topic for scholarly research but not both at the same time. This chapter provides a description of a third strategy: the conduct of undergraduate research in academic integrity. This strategy combines the benefits of undergraduate research generally: active, participatory learning, individualised instruction, and elevated student engagement with the benefits of in-depth conversations with students about academic integrity. First, the chapter establishes the psychological and pedagogical foundations upon which undergraduate research in academic integrity is conducted. Next, two intensive research structures are described. Third, the benefits of these activities are explored both from the students' and professor's points of view. Finally, some key recommendations are provided.

Keywords Undergraduate research · Academic integrity · Active learning · Psychology

Conducting Academic Integrity Research with Undergraduates

Academic integrity and misconduct are typically addressed in the social sciences as a set of behaviours for scholars to study (Rettinger & Bertram Gallant, 2022) or as a problem for instructors or administrators to solve (Lang, 2013). While these approaches are both important and necessary, a third path is available that combines these processes to achieve three goals: 1. Creating publishable research on academic integrity, 2. teaching students about research and 3. Promoting academic integrity by teaching students key integrity concepts through undergraduate research. Furthermore, exposure to these concepts supports a broader culture of integrity by helping

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research students to be role models for their peers, thus reinforcing other efforts to prevent academic misconduct.

Research with undergraduates is becoming more common in the United States. Recent data indicates that in the natural sciences as many as 75% of all graduates have conducted some form of research, up from 50% just 10 years ago (Linn et al., 2015). Undergraduate research is considered a "high impact practice" that has transformative effects for students (Finley & McNair, 2013). There is substantial evidence that research experiences are engaging for students, leading to increases in retention, learning, and long-term satisfaction with their educational experiences (Kuh, 2008a). Additionally, within social science disciplines it has become an essential component of graduate school applications. For example, Oklahoma State University's psychology department comments on their website (*How to Apply to Grad School*, n.d.), "...experience with research is considered extremely important by many schools. Working on a project with faculty supervision is strongly encouraged."

Research on academic integrity has many benefits over and above the overall importance of engagement in research generally. First, it exposes students to a topic that's immediately relevant to their current experience. As university life becomes more diverse, our students have less and less in common outside of class. Studying academic behaviour like cheating means that all potential researchers are affected by the psychological forces that are under examination.

Second, studying these forces gives students insight into their own experience. Both situational factors (likelihood of being caught if cheating, severity of punishment) and student attitudes (growth mindset, intrinsic motivation for learning, acceptability of cheating) can play a major role in determining whether a student commits misconduct. By studying these variables directly, students learn a vocabulary for discussing their own thought processes about school and are provided space to reflect on how their own beliefs and attitudes are shaping their behaviour.

Third, academic integrity has both practical and theoretical aspects, making it appropriate for researchers at all levels of conceptual expertise and a variety of interests. Students of educational psychology, for example, might focus on pedagogical variables such as classroom motivational structures. Sociology students might choose to examine larger social forces like racial inequities or gender roles as they influence academic misconduct. Clinical students in social work or psychology might choose to focus on interventions or on pathologies that might influence dishonest behaviours. Students of business might consider any or all of these in the particular organisational contexts that are of interest to them.

Finally, academic integrity is amenable to student research because virtually any research methodology that has been applied within the social sciences has been applied to academic integrity research. Both qualitative and quantitative methods are common, using surveys, experiments, vignettes, document analysis, focus groups, interviews, and more. Academic integrity is a topic that can be suitable for students of most any discipline within the social sciences (and many beyond).

This chapter outlines the theoretical foundations of psychology research into academic integrity by highlighting undergraduate research. Then, key formats for engaging students in research are described, including examples of research from

classwork, research teams, and individual research both within and outside of psychology. This section highlights some of the methodological diversity within academic integrity research as well. Finally qualitative data are presented that show the effectiveness of the undergraduate research process in achieving the goals of promoting academic integrity, teaching students critical and ethical thinking, and of teaching them about research itself.

Theoretical Foundations

It is encouraging to see how much of the literature on academic misconduct stems from collaborative research with undergraduate students (in addition to the excellent work conducted by early career researchers and graduate students). This volume and others (e.g., Rettinger and Bertram Gallant, 2022) contain excellent general reviews on the causes of academic misconduct, and so this brief review will highlight some of the research conducted with undergraduate students that has informed our understanding of who cheats and why. These studies were often conducted in classes such as those described below or as thesis projects by individual undergraduates.

Social scientists understand that all behaviour is the result of a complex interaction between aspects of the individual and their context. Academic misconduct is no different. Early research by Bowers (1964) and McCabe (1992) focused on individual traits that predict misconduct, but over time more interest has emerged in variables that are more useful in explaining academic behaviour. These include personality traits, beliefs about cheating and dishonesty, and students' motivational approaches toward learning. Further studies have examined aspects of the educational context like beliefs about students' peers and about institutional policy. Additionally, research often examines the critical interaction of person and situation in their effects on academic cheating.

As an example of the trait approach, McTernan et al. (2014) studied a range of transgressive behaviours beyond academic cheating to determine if certain stable traits can predict who will engage in them. They tested the hypothesis that people who are impulsive, have a high need for new experiences (i.e., are high on sensation seeking) and have a lower-than-average ability for empathic perspective taking would be more likely to cheat in various ways. Using structural equation modeling, their research concluded that those variables do, in fact, predict frequency of transgressive behaviours, lending support to arguments that stable individual traits do explain academic misconduct.

In addition to these stable traits, Rettinger et al. (2004) and Rettinger and Kramer (2009), among others, highlight the importance of students' attitudes and beliefs about cheating and school in predicting cheating. First, students are more likely to cheat when they don't believe that they can do their assignments according to the rules. Using vignettes to manipulate the protagonist's self-evaluations, Rettinger et al. (2004) showed that students who believe they can do the work depicted were rated as less likely to cheat than those who do not (see also Finn & Frone, 2004).

The literature consistently finds that moral judgments about cheating and so-called "neutralising attitudes" play an important role in students' cheating behaviours. It is not surprising that students who endorse the idea that cheating is not as serious (McCabe, 1992), not a moral issue (Stephens et al., 2007), or less morally wrong (O'Rourke et al., 2010) tend to report that they are more likely to cheat. This is not a sufficient explanation for cheating behaviour, though, because students who think that the behaviour is wrong still do it (Stephens, 2017). This phenomenon has been explained by the closely related concepts of neutralising attitudes (Sykes & Matza, 1957) and moral disengagement (Bandura, 2011). In both theories, moral attitudes can be circumvented, often by considering a particular behaviour to be exceptional, or deciding that normal moral rules don't apply. Student research by O'Rourke et al. (2010) showed a strong positive association between the strength of a student's neutralising attitudes and their self-reported academic misconduct.

Next, the reason that students are engaged in education has an important impact on their behaviour. Students who are motivated by learning are less likely to commit academic misconduct, while those who are motivated by extrinsic or competitive goals are more likely to cheat (Rettinger et al., 2004). Cheating appears to be antithetical to the goal of personal development (Newstead et al., 1996) but actually helps to achieve extrinsic and performance goals because getting a good grade and the benefits that accrue from high achievement are more easily attained. This can explain why motivational variables do not always moderate the effect of self-efficacy. Even highly effective students may still opt to cheat to ensure good grades when they are extrinsically motivated.

Aspects of the social context or situation have a substantial effect on students' behaviour. Students, like everyone, are sensitive to the social climate around them and model their behaviour on what they perceive others do and believe. A more extensive review of the importance of social norms to helping students learn with integrity can be found in this volume (Curtis, 2023). Students learn appropriate academic behaviour from peers even more than from authority figures (McCabe & Trevino, 1996). Students' beliefs about what peers consider acceptable has a profoundly important impact on their own misconduct (Jordan, 2001). Students who think that academic misconduct violates the social norm are much less likely to engage in misconduct itself. One crucial environmental influence on students' behaviour is the result of witnessing other students commit dishonest acts. O'Rourke et al. (2010) found that seeing others cheat has a direct positive effect on self-reported cheating, even controlling for changes in attitudes. This corresponds to findings by Carrell et al. (2008), who found that simply knowing students who cheated in high school increases the odds of a student cheating in college.

Furthermore, seeing others cheat also influences some of the attitudes mentioned earlier. Seeing these acts or even believing that they are occurring can change students' moral valence (belief that cheating is wrong), neutralising attitudes (their ability to excuse the behaviour in a particular circumstance), and perceptions about their peers' views of academic misconduct. O'Rourke et al. (2010) demonstrated that seeing others commit misconduct increases cheating overall by making the behaviour seem less dishonest, and also directly through mechanisms of social learning.

Students are able to observe others cheating and not being punished, which vicariously reinforces their own cheating.

As we can see, student attitudes and their perceptions of the academic integrity environment have a substantial influence on their decision to or not to engage in academic misconduct. Many of the findings that support this claim were generated by research teams involving undergraduate student collaborators. Let's now turn to the structure and methodology of the projects that lead to such findings.

Research Formats

This chapter reports on two kinds of academic integrity research experiences for undergraduates: course-based projects and independent, team-based projects. At the University of Mary Washington as of 2022, all Psychology majors are required to engage in at least one senior research experience, either in a semester-long (16 week) class called *Research Seminar* or through an independent, team-based research project lasting a full academic year. Research seminars typically include 11–16 students and research teams consist of 3–5 students. Both endeavors are generally reserved for senior Psychology majors.

Standardised learning objectives are developed by committees for each course and include both content and process-related aspects. In the case of seminars and projects about academic integrity, content goals refer to learning about the theories and practical aspects of research on that topic. For research seminars, the relevant learning objectives are:

1. To become familiar with the major theoretical models (of academic integrity).
2. To gain hands-on laboratory proficiency with research methods in these areas of psychology.
3. To improve critical thinking, analytical thinking, writing, speaking, and research reporting skills.

For research teams, the learning objectives are broader and more concrete. Students will be able to:

1. Apply what was learned in coursework to new scenarios outside standard university courses.
2. Identify their personal values and learning goals and direct themselves by creating personalised learning experiences that may include alternative means of learning.
3. Clarify and refine their understanding of their strengths and weaknesses in content of relevant disciplines and in skills such as time management, organisation, professionalism, and so forth.
4. Recognise their knowledge and lack of knowledge.
5. Connect their undergraduate experiences and their post-graduation lives.

6. Conduct a literature review of relevant psychological literature and critically read primary source research articles.
7. Identify a research project that builds on previous literature and determine appropriate research methods to complete the project.
8. Collect data to answer research question(s) and analyse the data using appropriate tools and techniques.

Because these objectives span versions of the course on topics across psychology (i.e. developmental, social, clinical, biological, experimental), the particular objectives of sections pertaining to academic integrity contain the unwritten goal of having students reflect on their own past behaviour and act more in accordance with their own values in the future.

To achieve these goals, research seminars have two components, a truncated literature review and a research study. The literature review assignment is designed so that the empirical research is informed by the literature review, giving students the chance to develop their own research questions and hypotheses on the basis of theory and previous research. The entire project is conducted in small groups of 2–4 students, although each individual student produces their own written report. These mini-projects are not intended to lead to publication-quality projects, and the time frame is not conducive to data collection on that scale. For example, groups have studied topics including how peer influence affects misconduct, the role of reporting requirements within honor codes, the importance of students' perceptions of instructor effort on self-efficacy and misconduct, and more.

Research team membership is selective and is by application. Most students accepted onto research teams are seniors, although first or second-year students who show extraordinary promise may participate. Research team membership is an intensive experience that is awarded six credits over two semesters (equivalent to two classes over a full academic year). Because research teams have an entire academic year to complete their work, expectations are greater. Each team conducts a complete literature review rather than a short one and completes at least one study that is intended for publication. Teams often conduct multiple studies (although one may be a pilot version) in an academic year. Research teams produce presentation- and publication-quality data.

For example, the article by O'Rourke et al. (2010) is the result of work by a team of five students who studied the effects of witnessing other students commit misconduct. As described in the literature review, they conducted research on the importance of seeing other students cheat. The students conducted both a vignette-based experiment and a survey to test their hypotheses. Their use of a multi-method approach gave them a broad range of skills that prepared them for graduate school and professional life.

The findings of McTernan et al., (2014) are described above. These students examined dishonest behaviours across a range of domains, including academic dishonesty. Because those students had a particular interest in clinical work and statistical methods, they chose to study stable traits that might be connected to psychopathology (like sensation seeking, self-conscious emotions, and empathy)

using advanced statistical techniques. As a group they curated a survey instrument to collect data on these variables and then learned and executed advanced multivariate techniques like confirmatory factor analysis and structural equation modeling. Using these data and techniques, they built a statistical model of individual differences to explain misconduct that highlighted the importance of impulsivity and empathic perspective taking.

Most recently, a team of four students (Rettinger et al., 2023) investigated the importance of institutional, classroom, instructor, and peer effects on self-reported cheating. This group used multivariate statistical designs (PROCESS; Hayes, 2022) to analyse data from two surveys of university students. The first examined the role of campus resources in preparing students for university work and indirectly in reducing misconduct. They found that study skills like time management and use of campus resources (e.g., writing center, tutoring) are highly associated with academic misconduct but that institutional belonging and participation are less critical in reducing misconduct. In the second study, they evaluated the importance of instructor-related variables in reducing cheating. They concluded that most of these variables have an indirect effect on misconduct by reducing students' beliefs about peer acceptance of the behaviour. In other words, good teaching reduces misconduct directly, but also by creating a "culture of integrity."

It is noteworthy that undergraduates are able to produce high-quality research that answers theoretically meaningful questions about the psychology of academic integrity. Some of this research has been published in peer-reviewed journals (e.g., O'Rourke et al. 2010; Curtis, et al. 2022, Rundle, et al., 2019), and other research has been presented at conferences like the Association for Psychological Science (e.g., Rettinger et al., 2008, 2009, 2010, 2012, 2014). Even when student research does not lead to publishable findings, conducting the research is valuable for the students.

Effectiveness

How do we know that students have benefited from their experiences as academic integrity researchers? While it would be desirable to examine long-term effects on behaviours such as citizenship, ethical development, and illicit activities, in the short term we asked them to reflect on their experiences. With help from the University of Mary Washington Alumni Association, a brief open-ended survey was sent to a group of students who had participated in individual research, team research projects, and course-based research on academic integrity. A total of 56 alumni were contacted but only 10 responded (2 from research seminars and 8 from research teams). They were asked about the impact of their research experience on their thinking about academic integrity and about psychology research more generally. All were treated according to APA ethical guidelines and consented to the sharing of their responses.

Participants were asked to recall the hypotheses and research questions of their research. Of 10 responses, nine were clear enough to identify the study in question, even though they were conducted between 1 and 12 years before. All were able to identify the primary research methodology used in their research, an even split between surveys and experimental methods (including vignette experiments). Given the sampling bias resulting from self-selection, it's difficult to make strong interpretations of the participants' excellent memory for their research, but for those students who were most motivated, we can conclude that they maintain a long-term recollection of their research experience.

Participants were asked if their research experience caused them "to think more or differently about academic integrity." Their responses indicated that the majority (9) of them did learn about academic integrity from their research experience. Some indicated that they better understood "why people might engage in academic dishonesty," particularly that "there is a lot of pressure." Their experience conducting research led others to highlight the fact that there are "many different motivations. . .going into the decision to be academically dishonest. There isn't just one type of student who engages in it." The participants showed a nuanced understanding of academic integrity that many students never achieve. In particular, respondents were able to articulate particular psychological variables that impact academic dishonesty such as "neutralising attitudes," "impulsivity," "self-directed emotions like shame and guilt," and "externalising blame." Conversely, participants (who requested that they be identified by their initials in the following descriptions) including CVO recognised the complexities of the issue, noting "there are SO MANY factors. . . . It isn't as simple as just being lazy." It's safe to say that many faculty members have a much less nuanced view of academic integrity.

Participating in research on academic integrity gave some participants a more realistic view of academia, particularly about its failings with regard to managing academic misconduct. Some participants reported feeling "disappointed" or seeing "nuances," in the academic integrity process as it plays out on campus. In particular, one participant (CVO) commented that "it discredits and devalues the grades. . .I worked. . .hard to earn." Another participant (ST) had a more sympathetic perspective, "cheating is more than just wanting to get an A or be better than your peers, sometimes students feel like they need to cheat out of necessity for getting through college regardless of the grade." This range of responses highlights the fact that students who conduct academic integrity research do gain a perspective on the topic that most of their peers do not.

One goal of this project was to test the hypothesis that conducting research on academic integrity would lead to a lower likelihood of misconduct by research students. Unfortunately, the qualitative data do not support that conclusion. Only one student (ST) indicated that studying academic integrity caused them to be less likely to commit misconduct themselves. ST "found myself double checking work and making sure I have not accidentally plagiarised anything." The remaining nine respondents did not even mention their own academic integrity or misconduct. We can't draw any firm conclusions from this lack of evidence, but I propose that selection bias creates this lack of result. It seems likely that the population of

students who choose to research academic integrity and later report back on that experience are among the least likely to commit misconduct in the first place. Based on this lack of data, we cannot conclude that studying academic integrity in particular will reduce the incidence of misconduct.

Participants also discussed general lessons from the project. They mentioned specific aspects of research including "IRB applications, measurement of variables, statistics, and more." Another commented that they had found "interpreting null results and designing experiments to be impactful no matter their findings." Participant AC provided a summary that is consistent with the views of their peers: "The most obvious impact has been on how I read and consume research in the real world. I am better equipped to engage with reliable sources of information and identify misinformation because of the lessons that were learned and reinforced in conducting research of my own."

Some participants felt that conducting research was worthwhile because of broader lessons about life and learning. PL described it as an "invaluable experience... which empowered me to pursue graduate studies and assert myself in the professional world." AL went on to law school and commented, "Knowing what it means to prove something helps me to approach others' claims with a healthy dose of skepticism. That's useful in the law and for life in general." Undergraduate research generally has lifelong impacts (Kuh, 2008b) on students' educational experiences, and conducting that research on a personally meaningful topic area such as academic integrity can intensify the experience for them.

Finally, it is worth noting that the research described in this chapter took place within class structures that dedicate a huge amount of time to undergraduate research. Not all programs or courses have such a luxury. However, the benefits that accrue to these projects don't require such a large commitment of resources. Students can benefit from participating in any aspect of a research project separately. For example, a literature review, a research design project, or even data analyses in a statistics class can provide opportunities for students to reflect on their own academic values. When possible, though, students get the maximum benefits from a structured research experience that begins with goal- and agenda-setting activities. Because intrinsic motivation is so important to authentic learning (Anderman, et al., 1998), give students as much autonomy as possible in determining research topics and methods. This requires that they start with a literature review on their topic of interest with special attention to methods that have worked well in the past. Following a successful review of the literature, they should create a research proposal that can also serve as the basis for IRB or ethics board approval. These activities will prepare them to collect and analyse their own data.

Conclusions

Undergraduate research on academic integrity serves three key purposes. First, it allows faculty scholars of academic integrity research and the graduate and post-doctoral members of lab groups to work with undergraduates to produce publication-quality research on topics that are important to our scholarship. This creates synergy that can energize both mentors and mentees and make more productive use of our limited time and resources.

Second, undergraduate research in academic integrity provides students with an engaging topic of study as they learn about research methods in their disciplines. Students from all backgrounds, disciplines, levels of experience, and interest levels have some exposure to academic misconduct, making it of near-universal interest. Academic integrity research uses a wide array of methodologies, including surveys, behavioural experiments in the laboratory and the field, and vignette-based experiments, along with qualitative methods such as interviews, focus groups, and textual analysis. Academic integrity research is an excellent sandbox for students new to research to work with methodology, statistical analyses, and written reporting because they have an intuitive understanding of the behaviour involved, even as they learn about the logistics and theories, they need to conduct their research. Because the ability to conduct and evaluate research is among our most important learning outcomes in the social sciences, academic integrity research can be harnessed to meet that goal.

Third, the study of academic integrity helps students to understand their own behaviour and those of their peers better. Our student-researchers indicated that they gained a broader perspective of academic cheating, that they saw the importance of teachers' and institutions' responses to cheating and were generally more aware of the issues surrounding academic integrity.

In many ways, awareness and behaviour change are our most important goals as academic integrity professionals, but it can be challenging to bring academic integrity topics into the curriculum in a positive way. We often frighten students with threats of punishment or alienate them by talking to them about cheating, because they feel preached at or that we presume that they are dishonest. By including them in our work as scholars of academic integrity, their role/perspective becomes one of an ally in their own education and in promoting a culture of integrity more broadly. The practice of conducting undergraduate research with students for academic credit in a course or independent research makes it possible for busy students to fit research into their schedules and sends a strong signal that the institution values the time they and their faculty mentors spend on undergraduate research. Undergraduate research generally and particularly research on academic integrity with undergraduates can have positive impacts on students' ethical development, academic integrity, and research learning outcomes.

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Chapter 9
A Pedagogy for Teaching Research Ethics and Integrity in the Social Sciences: Case-Based and Collaborative Learning

Erika Löfström and Anu Tammeleht

Abstract Case-based and collaborative learning have been identified as successful strategies in education. These are widely used as a means to engage learners. This chapter reviews research on case-based and collaborative learning, as well as on the teaching and learning of research ethics and integrity. Based on the extant literature, it identifies what works in ethics and integrity training, and why this is so. The aim is to describe a pedagogy for the teaching of research ethics and integrity within the social sciences, considering the nature of the social sciences, i.e., phenomena are ambiguous, and knowledge is contested. In this chapter, we unpack the pedagogy behind case-based and collaborative approaches, and view research considering contemporary learning theories in order to arrive at a pedagogy for the teaching of research ethics and integrity especially in the social sciences. We illustrate some of the insights from prior research with examples of data from our own interventions. Only by understanding the pedagogical underpinnings of teaching methods that do seem to work and for which there is also research evidence, will it be possible to develop the teaching in a pedagogically aware and justified manner.

Keywords Ethics training · Integrity training · Higher education · Case-based learning · Collaborative learning

Introduction: Why Does Pedagogy Matter?

There is agreement that research ethics and integrity need to be taught in higher education, and that these can, indeed, be taught (Canary, 2007; East & Donnelly, 2012; Hyytinen & Löfström, 2017). Literature reviews (e.g., Löfström, 2016; Stoesz

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& Yudintseva, 2018) suggest a number of ways to teach research ethics and integrity. These include lectures, individual online courses, role-play, simulation and case-based approaches. Cases or dilemmas as the basis for learning have been identified as being a powerful means of teaching ethics or integrity-related content (Fisher & Kuther, 1997; Nonis & Swift, 2001; McWilliams & Nahavandi, 2006; O'Leary & Cotter, 2000; Zucchero, 2008). Working with cases or dilemmas promotes active learning (Kalichman, 2007), which is considered to be beneficial for competence development. Within the social sciences, learning about research ethics and integrity has been researched more in education, psychology, business, and economics than in other fields (Löfström, 2016).

To improve teaching, it is necessary to understand why and how learning takes place, and, therefore, the processes by which students learn enhance our understanding of learning in the context of research ethics and integrity. To do that, one may examine the levels of understanding that teaching activates, in other words, making the invisible learning visible to learners and their teachers.

If a learner misses the point, the content may be entirely novel to the learner or presented at a level that is too advanced, considering the learner's current knowledge and understanding of the topic. However, the learner may have been able to memorise, recognise, identify, and perform simple procedures, such as recognising terminology without fully understanding the concepts or identifying the relationships between them (also referred to as a unistructural level of understanding) (Biggs, 1999; Biggs & Tang, 2007). While this level of understanding already brings some tangible comprehension, it is hardly the level at which higher education institutions prefer their graduates to end. This very much also applies to research ethics. To be able to carry out a piece of research or to function adequately in an academic context, one must reach for higher levels of understanding.

Appropriately understanding concepts around research ethics and integrity provides a good point of departure for implementing the knowledge in practice. However, this is not enough if there are challenges in identifying relationships between concepts and in drawing conclusions based on these. This level of understanding, at which conceptual knowledge has already been attained, and the learner can describe, illustrate, combine, and follow procedures, is referred to as a multistructural level of understanding (Biggs, 1999; Biggs & Tang, 2007). Learners may be able to retell content using proper concepts, such as citing codes of conduct and applying the terminology, such as *informed consent*, properly. At the same time, there can be failure to understand the meanings of the concepts and their associations within the content. For example, the learner may understand that to give their consent, participants need to be informed, but they may not recognise this being a consequence of the ethical principle of *respecting individuals*.

At higher levels of understanding, which are often the target of studying at the tertiary level, the learner can compare, contrast, explain, analyse, relate, and integrate (referred to as a relational level of understanding), and hypothesise, theorise, create, and reflect (referred to as an extended abstract level of understanding) (Biggs, 1999; Biggs & Tang, 2007). These levels involve identifying key issues and being able to explain them and connect them with other relevant entities of knowledge

(relational level of understanding), and exploring the boundaries of given conceptualisations, identifying connections and patterns, and making informed judgments (extended abstract level of understanding). This means that the learner not only understands the idea of informed consent, as in our example, but understands how that relates to some other concepts, such as *ethical principles*, *respect for individuals*, *information letter*, and perhaps *ethics review*. In addition, the learner is also able to implement this knowledge in the information and communication practices applied and recognises that there may be different expectations regarding the information for different target groups, such as young children or other individuals who may be unable to consent for themselves.

The above taxonomy of learning, also known as the *Structure of Observed Learning Outcomes* (SOLO), has been applied widely in a range of subjects, among learners at a range of levels, and on a variety of learning tasks (e.g., Chan et al., 2002), including the context of research ethics (Löfström, 2012; Tammeleht et al., 2019, 2022a, b). The pedagogical consequences entail that the level of understanding aimed for directly influences the instructional choices in teaching. If we aimed for the understanding of research ethics and integrity at relational and extended abstract levels, *what would the pedagogy look like?*

Prior research on research ethics and integrity supports the notion of using cases (e.g., Bagdasarov et al., 2012; Johnson et al., 2012; McWilliams & Nahavandi, 2006; Nonis & Swift, 2001; O'Leary & Cotter, 2000). To place learning in a wider theoretical frame of reference, we relied on socio-constructivist learning theory (Vygotsky, 1978a), which suggests that learning is most effective when supported by a group working on the same learning task in a collaborative manner. Researchers have suggested collaborative learning (or team-based learning) to be one of the more effective instructional frameworks for teaching ethics and integrity (see McCormack & Garvan, 2014).

We focused on case-based learning and collaboration and explored why these may be considered effective in terms of facilitating deep learning. We explored whether and why this pedagogy is helpful in developing research ethics and integrity competencies through examples from our own empirical data. The aim of this chapter is to understand how these methodological approaches in teaching promote understanding of research ethics and integrity, and the extent to which the approaches encourage learners to reach higher levels of understanding.

The social sciences are a broad selection of a variety of fields (e.g., sociology, economics, psychology and counselling, education, anthropology, political science; Klemke et al., 1980) employing many theoretical perspectives and research approaches. Despite the variety within the individual fields, it is common for researchers to undertake research with human research participants or for them to investigate human artefacts. This obliges researchers to adhere to high standards of research ethics and integrity, which is common for all researchers. In research, integrity and ethics are often intertwined in explicit norms, tacit practices, and decision-making situations. In this chapter we address both. By research ethics we mean general, normative principles concerning what is acceptable and what is not,

i.e., expectations regarding moral positions (Jordan, 2013). By research integrity we mean moral positions and acting upon these, i.e., "logically coherent positions on ideal moral behaviour, backed by actions that demonstrate this position, practised by individuals or institutions . . ." (Jordan, 2013, p. 252). In practice, research ethics and integrity involve not only understanding concepts, such as informed consent or plagiarism, but also applying practices that will ensure high standards and understanding why it is important to uphold high standards. Therefore, it is vital that teaching supports relational and extended abstract levels of understanding.

A Note on the Training Intervention and the Data

We have illustrated the advantages and challenges using cases in research ethics and integrity education in social sciences with examples from data collected from a case-based collaborative training intervention. While the research has been reported elsewhere (see Tammeleht et al., 2019, 2022a, b for details on methods and research ethics, and results), we have shown examples from the data whenever pertinent to what the literature on case-based and collaborative learning establishes. Therefore, we have briefly explained the ethics and integrity training intervention and described the type of data accumulated during the intervention and from which we drew our examples.

We designed a pedagogical intervention combining cases and collaboration with the aim to cover the foundations of research ethics and integrity. The topics were informed by *The European Code of Conduct for Research Integrity* (ALLEA, 2017) widely applied in Europe. The purpose was to raise awareness of ethical issues during the research process; practise using codes of conduct and become familiar with central topics; and to learn with peers. We collected data in the form of group reports and discussion recordings from 64 students from several degree levels (bachelor's, master's and doctoral) working in 19 groups (Tammeleht et al., 2019). Participation in research was voluntary and based on informed consent.

Training sessions were structured along the following tasks:

1. Pre-practice questions designed to attune learners to the topic and map their initial awareness of ethics and integrity in research. Learners were also asked to familiarise themselves with national guidelines and the ALLEA Code of Conduct.
2. Task 1: Getting acquainted with the case. Groups received a case with relatively general and open-ended content. They were asked to come up with an example related to their field (the cases were applicable for several fields) and to define a context to the ethical issues. The first step was to mark on the group-report sheet (underlining/circling/taking notes) which ethical issues they recognised. This could be both explicit and implicit. The group had about 15 minutes for this task. The following excerpt illustrates an implicit potential case:

> The research institution turns to you to take over a part of a bigger survey as part of a European research project. The subjects of your research will be girls in their early teens (as an alternative – you are collecting data from a sensitive sample – rare artefacts/endangered plants), the results will be published in an international journal. You agree and start your planning. Which ethical issues might emerge?

3. Task 2: Relating the case to codes of conduct and guidelines. The groups were given guiding questions about the case drawing attention to various issues (topics) characteristic of the research phase, i.e., planning, conducting research or publishing. The topics that the learners were expected to discuss were based on the contents of the ALLEA Code of Conduct. The groups were prompted to utilise the European and the national codes of conduct. The groups had about 20–30 minutes to discuss the questions. For example, for the case above, some of the questions were:

> Which codes of conduct should you follow? Are you familiar with them? Where can you find them? Are there special requirements and protocols for treating under-aged human research participants? Is an ethics review required? What determines this? Envision the impact of the research: What is the impact of your research on the research participants and other parties?

4. Task 3: Elaborating perspectives. The group was given support material outlining the topics of the case accompanied by comments and references to guidelines pertaining to them. The groups elaborated the answers on their group-report sheet, spending about 15–20 minutes on this task.
5. Task 4: Reporting. The groups gave overviews of their cases to other groups. This task was scaffolded by one or two facilitators who tried to help the group to develop their understanding further. All other students were encouraged to join in with questions and comments. Each group spent about 15 minutes on the overview.
6. Students who participated in the workshop were asked to fill in a feedback form (individually) to identify awareness development and perceptions of their own learning (Tammeleht et al., 2019).

By following the tasks, learners get a chance to iterate the topics in the case and gradually improve both their ethical sensitivity as well as understanding. If the only question the learners get is: 'what should be done?' or 'whose fault is it?' they may not approach the case and all the underlying topics in a sufficiently multifaceted way, and the provided solutions may remain superficial or one-sided.

Group reports and discussions were analysed by applying deductive content analysis (Marshall & Rossman, 1995). In the analysis, the Ethical Case Assessment Grid (ECAG) based on the SOLO taxonomy (Tammeleht et al., 2019) was applied. The ECAG allows both learners and facilitators to assess and document the displayed level of understanding as engagement with the case unfolds. Individual reflections were analysed using descriptive statistics. The learners' perceptions of collaboration and content of the intervention were extracted from the answers to open-ended questions in a feedback form.

Case-Based Approaches to Teaching Research Ethics and Integrity

One of the methods appraised for its effectiveness in facilitating ethics competencies is case-based learning (CBL). CBL can be used in most fields in which students encounter controversial situations (Biggs & Tang, 2007), such as in dealing with ethical/moral dilemmas in research. CBL has been utilised especially in medical education to provide learners with opportunities to connect theory with practice and to deal with life-like situations (Biggs & Tang, 2007). Also, other concepts, such as vignettes, dilemmas, and scenarios, have been used to describe the teaching of ethics and integrity that draws on life-like situations. What they all have in common is that they draw on a realistic or 'real life' situation laying out the details of the context and including an implicit or explicit value conflict. CBL is characterised as being an effective method for knowledge acquisition, skill and attitude development and appropriate behaviour (Kim et al., 2006). Learning through cases has been perceived as an enjoyable way of learning both by students and teachers (Kim et al., 2006; Thistlethwaite et al., 2012). Enjoyment is a key element in increasing motivation and engagement (Thistlethwaite et al., 2012).

While CBL and its effectiveness have been studied in the field of medicine (see a literature overview by Thistlethwaite et al., 2012), there are also studies related to ethics education identifying the benefits of CBL. Researchers (Burr & King, 2012; Fisher & Kuther, 1997; Clarkeburn, 2002; Zucchero, 2008; Jordan et al., 2011; Rissanen & Löfström, 2014) have found that discussing moral dilemmas and dealing with cases improve understanding of the topic, support reflection on theory through practice, and enhance understanding of the context. Even small-scale ethical interventions, such as discussions of cases, have been shown to be beneficial for learning (Clarkeburn, 2002).

In case-based instruction in ethics/integrity training, the first step is to identify ethical issues (sense-making), then elaborating on the content to understand the topic better (knowledge acquisition) and moving on to deciding about the proper course of action (Johnson et al., 2012; Bagdasarov et al., 2012). Learning through ethics cases can be supported by providing notes in outline format (Johnson et al., 2013).

What Does a Good Case Do?

Good cases have relevance. They consider the competence level of learners, the goals and objectives of the learning, and the setting. The setting should be realistic, meaning it is authentic; it should contain distractors that encourage learners to evaluate the relevance of information against the given setting; and it should gradually disclose content (Kim et al., 2006). In the context of ethics and integrity, cases could be set in ordinary research settings and situations in research institutions, such as planning a research project, collecting, and managing data, and disseminating research results. The important thing is that learners recognise these activities as part of the research process and the researcher's work.

Furthermore, good cases engage learners. They do this by providing rich content, enabling multiple perspectives, and branching of content (Kim et al., 2006). Branching is like the scaffolding technique of 'extending the case' (Reiser, 2004), which involves providing information to add a layer to the original problem helping or provoking the learner to think further. A branching question may be 'But what if this person were to say ...?' Real ethical dilemmas in research practically always involve multiple stakeholders, and depending on the perspective, the issue may come across in very different ways. This could potentially lead to alternative interpretations and consequently, different solutions (Mustajoki & Mustajoki, 2017). Taking on different viewpoints, i.e., perspective taking (e.g., Rest, 1984; Hoffman, 2000) and exploring their affordances and constraints without having to necessarily commit to any one perspective in CBL can be an eye-opening and empowering experience.

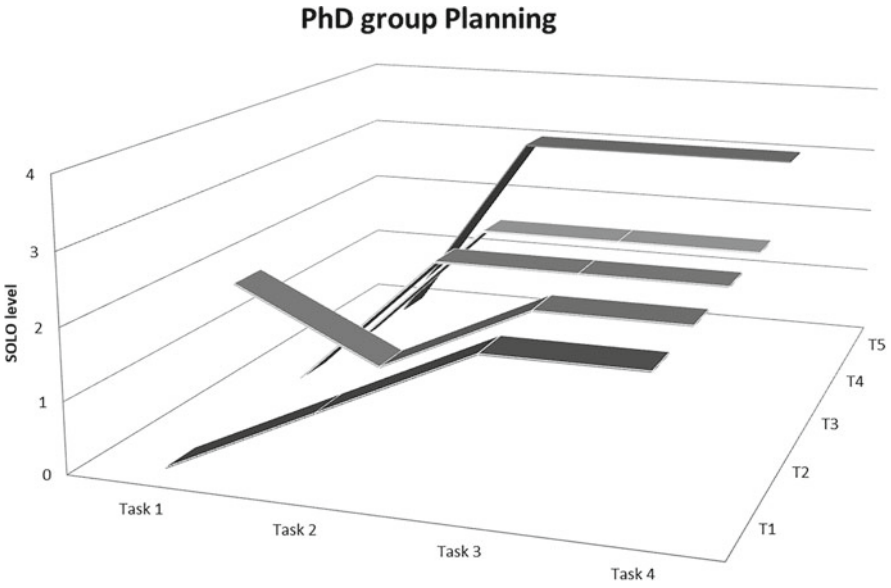
Good cases also challenge the learner by offering a suitable level of difficulty (Kim et al., 2006) within the learner's zone of proximal development (Vygotsky, 1978b). While the case must resonate in some ways with the learner's frame of reference, it may also introduce an element of unfamiliarity that encourages learners to extend beyond their comfort zones (Kim et al., 2006). To support the learner in this, case structure can be used as a scaffold gradually leading the learner to increasing complexity and an opportunity to deepen understanding (Kim et al., 2006; Reiser, 2004). It is a good idea to provide a variety of cases. Firstly, this provides the learners some autonomy to choose the one they would prefer. Secondly, it may cater for the needs of various disciplines.

Instructional aspects, such as how well the case builds upon prior knowledge, the assessment methods used, feedback mechanisms, and teaching aids, will influence the learners' experience with the case (Kim et al., 2006; see also constructive alignment, Biggs, 1996). Case quality has an impact on how learners perceive the issue requiring ethical/moral considerations and how they make decisions. Reasonably complex cases with negative outcomes, such as the presence of harm and the potential of violation of behavioural norms, enable learners to identify the key ethical issues and engage in problem-solving (Johnson et al., 2012; Reynolds, 2006).

Good cases also encourage elaboration, that is, answering questions about a well-structured case provides better results with knowledge acquisition than working on one's own case or having no need to elaborate, that is, not answering questions on the case (Bagdasarov et al., 2012). The tasks related to the case should provide opportunities for learners to display high levels of understanding, meaning at least a relational level. Elaboration is associated with the higher levels of understanding in the SOLO Taxonomy (see Biggs & Tang, 2007). There should be an opportunity for learners to elaborate on the case with the help of accompanying tasks and questions that prompt thinking (Bagdasarov et al., 2012).

Poor cases are too general and would pose difficulties for most learners. Even though several aspects might be identified that could be used to initiate a discussion, there might be too many variables that are not known. Learners can be instructed to identify a context, research topic, time frame and so on by themselves, but the case

must be solid enough to 'work out' even when learners add their own parameters to the case. We have illustrated this by an example from our data from doctoral candidates. These data suggested that especially more advanced learners struggled with poor cases. Doctoral candidates dealt with a case that they considered too superficial, and this hindered them in noticing most research ethics and integrity topics present in the case. When they were asked specifically about the pertinent topics during the second task (relating the case to codes of conduct and guidelines), the doctoral candidates were able to provide answers on all the topics, but only after the case had been elaborated by the facilitator (Fig. 9.1). However, the participants did not exhibit evidence of the highest level of understanding, namely the extended abstract level, on the foundation level tasks.



SOLO level / Topic	Description
4 = Extended abstract	Extending ethical issues beyond the present case. Theorising, generalising, reflecting.
3 = Relational	Addressing relevant ethical issues, providing explanations pointing out interrelations.
2 = Multistructural	Concepts have been understood, but difficulties to make connections between them.
1 = Unistructural	Displaying some familiarity with concepts, failing to address pertinent aspects.
0 = Pre-structural	Failing to identify a relevant ethical perspective or to approach it in a meaningful.
T1	Knowledge of the codes of conduct
T2	Need for ethics review
T3	Evaluating the impact
T4	Treating partners and participants
T5	How to minimise risks and harm?
T6	Data management plan

Fig. 9.1 Doctoral candidates tackling a case which was perceived to be poor

Where to Find Relevant Cases?

The topics could be divided according to the phases of the research process, such as, planning, conduct, dissemination, and data management. The cases could be obtained from various sources: from research articles and books, specifically collected through interviews or invented by teachers, especially if certain content needs to be included but no suitable examples are available. Cases should be modified to make sure they retain no connection to the original source, unless the case is a commonly known one, but even then, it is advisable for ethical reasons to modify and anonymise the case (Tammeleht, 2022).

What Is the Case-Based Learning Process Like?

There are various options to help learners deal with a case. Different approaches could be utilised for beginners and more advanced learners, with prior knowledge. Firstly, to turn on the ethics 'antennae', the learners could be asked whether they see any ethical issues in the case. This task targets ethical sensitivity. Ethical sensitivity is necessary for activating ethical decision-making processes; the interpretation of a case determines the premises for the subsequent decision-making process (Butterfield et al., 2000). Without the recognition of an ethical issue in a case the learner will not find the task to be meaningful.

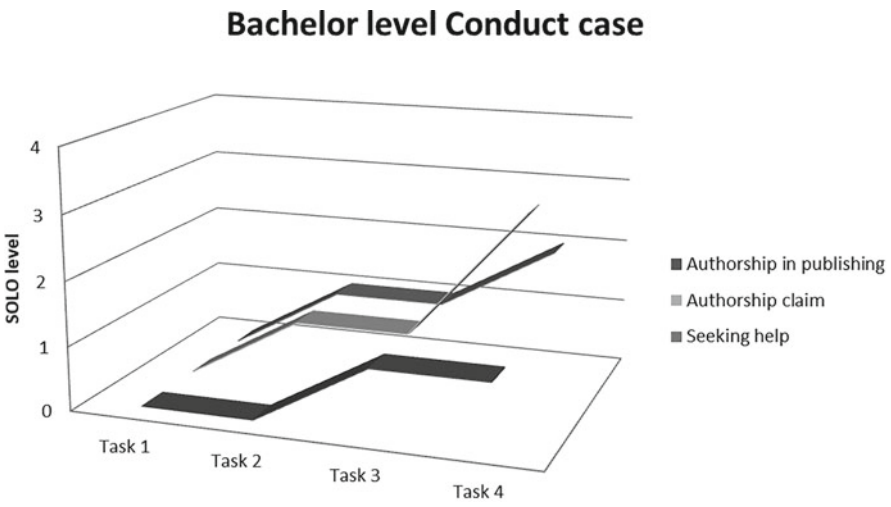
The expectation is that the more familiar the learners are with ethical topics, the more potential issues they recognise. Learners with limited exposure to ethics may not be expected to notice as many issues as their more experienced colleagues. However, the relationship between experience and ethical sensitivity is not a straightforward one, and facilitators using cases in their teaching should be aware that ethical sensitivity can also appear to decline over the course of studies. Prior research suggests that university students' ethical sensitivity is greater when they begin studying and that it declines gradually (Hébert et al., 1992; Sanders & Hoffman, 2010; Sparks & Hunt, 1998). The reasons for the decline may be a confusion between when to apply moral rules and when to rely on one's own ethical decision-making (Hébert et al., 1992; Sanders & Hoffman, 2010; Sparks & Hunt, 1998). Consequently, facilitators may find it helpful to separate learners' own identification of the ethical issue at hand and the identification of pertinent moral codes and guidelines to subsequent tasks in the case. Another helpful distinction may be that of norms and practices. A study on university students' learning of ethics and integrity in the behavioural sciences suggests that students perceive their socialisation into academia and their field mainly through the ethical norms and practices that they observe (Rissanen & Löfström, 2014). Ethical guidelines are necessary but may not cover all nuances of ethical issues in daily practices in research (Guillemin & Gillam, 2004). Cases may be used to bridge norms and practices, and, to bring the manyfold nuances of reality into the learning.

Supporting learning with a case at higher levels of understanding may involve pinpointing key aspects of the case. Pinpointing the relevant topics may take the form of questions. Occasionally, merely asking about the topic may help learners realise that a theme was indeed present, and they can easily provide information about it. Nevertheless, beginners may be at a loss as they may lack the information. Still, learners should get a chance to map their current knowledge by answering the questions, and to search for additional information with a clear purpose in mind. Access to support material may come in handy at this point.

Support material can come in the form of links to relevant pages online (like codes of conduct and institutional guidelines). Still, it may be beneficial for learners to have a more summative and shorter text generated by the facilitator to help pinpoint the more relevant aspects of the themes at hand. Links and references to further reading can be added to the summary, but the support material should not provide direct answers to the questions posed. Instead, the summarising text could be a cohesive discussion of the topics covered. This helps learners to contemplate the issues at hand and to formulate the answers themselves. Provided some questions have not been answered, there should be support available in some form, either a reading resource, a knowledgeable person providing the information, using an internet search, etc. The learners should have the opportunity to modify their answers, even if they had already provided an answer without any additional help. By elaborating on their answers, the learners can deepen their understanding (Bagdasarov et al., 2012).

We have illustrated the learning processes by examples from our data from bachelor's and master's students, and doctoral candidates. The analyses of the groups' ethical reasoning in relation to levels of understanding suggests that groups gradually developed towards higher levels of reasoning, but not all groups reached levels beyond the multi-structural level. Bachelor's students seemed to lack knowledge and research experience, at the same time exhibiting high sensitivity and potential for development when provided with appropriate support. For example, one of the bachelor's student groups initially did not notice any ethical issues in the case provided (such as authorship, power relationship, misconduct) during Task 1. Task 2 helped them recognise some topics (such as contributors should be authors, dealing with misconduct), but still at the unistructural level. Reading the support material did not improve the level of understanding either. The group benefited most from oral scaffolding during Task 4 and their understanding increased to multi-structural and relational for most topics (Fig. 9.2). During Task 4, the group just listed instances to turn to in case of problems, but not really seeing the relation between them. The facilitator extended the case by introducing another aspect to consider, which led the group to analyse the situation again, and as the sensitivity was already triggered, the topic of the conflict of interest was noticed and reasoned reaching a higher level of understanding (Tammeleht et al., 2019).

A master's level group working on the same case as the bachelor's level group was initially able to identify one topic, but no other ethical issues were noticed. When direct questions about various issues were posed, the group was able to provide an answer (usually one unit of information, like describing who could be an author of the article) to most of them (except one topic). Still, the answers were



SOLO level / Topic	Description
4 = Extended abstract	Extending ethical issues beyond the present case. Theorising, generalising, reflecting.
3 = Relational	Addressing relevant ethical issues, providing explanations pointing out interrelations.
2 = Multistructural	Concepts have been understood, but difficulties to make connections between them.
1 = Unistructural	Displaying some familiarity with concepts, failing to address pertinent aspects.
0 = Pre-structural	Failing to identify a relevant ethical perspective or to approach it in a meaningful.
Authorship in publishing	Who can be an author? Finding guidelines.
Authorship claim	Who can claim authorship? What is said in the guidelines?
Seeking help	Dealing with misconduct alone or seek help?

Fig. 9.2 The learning process of one bachelor level group dealing with a case about good conduct in publishing research (lines indicate the advancement of understanding)

quite superficial. Reading the support material during Task 3 increased understanding of most topics (e.g., authorship was explained in detail and providing justifications; examples and explanations were provided regarding relevant procedures). Support material also helped identify the last relevant topic (Topic 4, institutional guidelines). During the group presentation (Task 4) all topics were presented at a multi-structural and relational level (excepting one, which remained at the unistructural level) as the group provided the relevant information, but also included explanations and reasoning (Fig. 9.3). Overall, a gradual improvement of understanding could be recognised.

A group with doctoral candidates also recognised only one topic during Task 1, but with direct questions about relevant topics the group was able to provide answers at the multi-structural and relational levels (by providing relevant information and examples about authorship, power relations, misconduct procedures). Support material helped the group improve its understanding of only one topic (Topic 2, by adding examples and reasons for relevant procedures). The information added after the support material indicated that the group had misinterpreted Topic 5 (by providing irrelevant information about the topic) showing a backward step in Fig. 9.4. Nevertheless, during group presentations students displayed

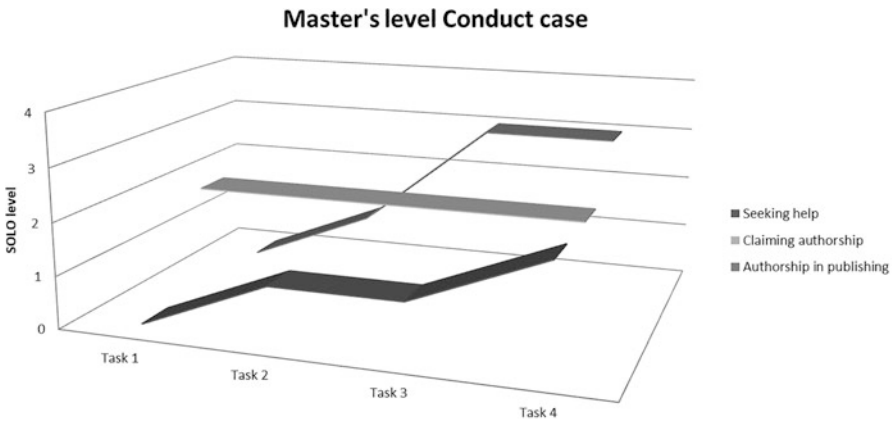


Fig. 9.3 The learning process of one master level group dealing with a case about good conduct in research (lines indicate the advancement of understanding)

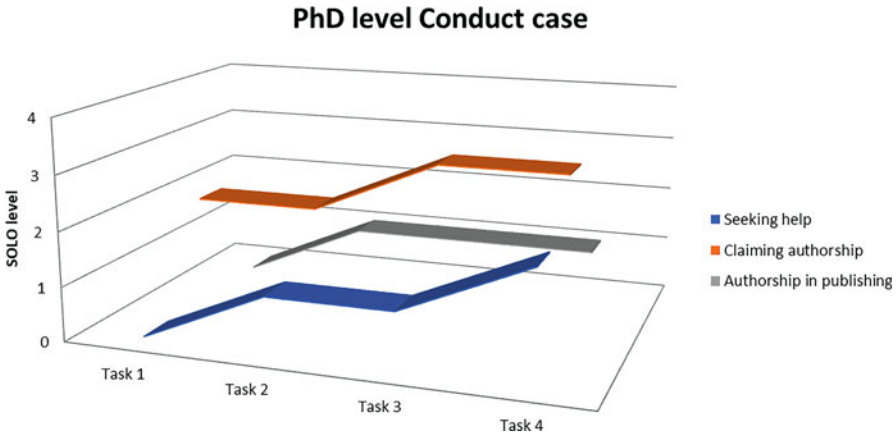


Fig. 9.4 The learning process of one group of doctoral candidates dealing with a case about good conduct in research (lines indicate the advancement of understanding)

understanding at the multi-structural and relational level for most topics as they received support from the facilitator and were able to justify their answers in a relevant way.

How to Assess Learning in Case-Based Ethics Teaching?

Assessment can take the form of formative and summative assessment. At best, assessment extends the learning process (Biggs & Tang, 2007). This may come in the form of a group presentation or a written reflection. The learners can reflect on

the issues they had initially missed in the case and think of wider implications of the ethical issues at hand (i.e., extended abstract level of understanding). Reflection may involve thinking about how the themes covered may affect the learner's own research now and in the future. Reflection could be prompted with questions such as (Tammeleht, 2022):

- Which ethical issues did you notice in your chosen case that you missed initially?
- Could any of these aspects be relevant in other situations? How?
- What could be the ramifications of disregarding any of these aspects?
- Are there any aspects that you have personal experience with? Is there any change in how you see them now?
- Which ethical issues do you envision encountering in the future? How would you handle them, considering what you have learned from the present case?

It is common in case-based ethics training that assessment is based on learners' subjective experiences of the training (Steele et al., 2016). Utilising the levels of understanding (Biggs, 1999; Biggs & Tang, 2007) for assessing learning would direct attention to what the learners do, rather than how they experience the training. Experiences may or may not resonate with learning, and consequently can be a poor criterion for learning. Teachers may find a grid on the levels of understanding (Tammeleht et al., 2019, 2022a) to be a helpful tool in the summative assessment of learning. Also, learners can use the same grid for reflecting on their learning. Indeed, research shows that using an assessment tool of this kind allows both teachers and learners to assess the learning accurately when the assessments of both parties are compared with each other (Tammeleht, 2022).

Collaborative Learning in Research Ethics and Integrity

In the spirit of socio-constructivist views of learning, collaborative learning is based on the idea that knowledge is a product of collaborative work. Constructivism means that learning involves a focus on knowledge construction, not reproduction, and a social dimension entails that learning takes place through social negotiation, not competition (Jonassen, 1994, 1995). There is also a situated dimension pertinent to a socio-constructivist understanding of learning, namely, knowledge itself and knowledge construction are always based on a context, and what is relevant or meaningful knowledge depends on the situational factors of a particular setting (Lave & Wenger, 1991). Understanding learning as contextual entails that activities and assessment should be related to real-life and real-world contexts (Oliver & Herrington, 2003). It is thought that learning can best be facilitated through realistic case-based learning (Jonassen, 1994, 1995).

Knowledge-building processes in collaborative learning may involve co-creating and sharing epistemic objects, such as portfolios, posters, virtual whiteboards, and group-work reports (Scardamalia & Bereiter, 2006). This was also the case with the data we draw our examples from. Learners may create epistemic objects, such as

shared written notes, group discussion, visualisations and other jointly created products, and solutions are refined in the collaborative learning process (Stahl & Hakkarainen, 2021). Indeed, in the context of ethical decision-making, collaborative learning specifically encourages the anticipation of consequences, which is pertinent to solving ethical dilemmas (McCormack & Garvan, 2014). Furthermore, research suggests that students perceive their socialisation into academia and their field mainly through the ethical norms and practices that they observe (Rissanen & Löfström, 2014), and team learning has been shown to improve ethical practice greatly (McCormack & Garvan, 2014). While improving ethical practice, the collaborative dimension, in the context of ethics and integrity, is also thought to limit self-protective behaviour (McCormack & Garvan, 2014), thus leading to better solutions and decision-making.

Is Computer-Supported Learning Helpful?

Digital tools have been used successfully to facilitate the learning process (Romanov & Nevgi, 2006; Stahl & Hakkarainen, 2021). Researchers refer to this as computer-supported collaborative learning (CSCL) (Stahl & Hakkarainen, 2021). Tools for reflecting on the group processes and each learner's own role as a member of the group can be integrated in the learning environment (Nevgi et al., 2006). Digital support provided in the form of visual or conceptual support and structural scaffolding, that is, built-in support in course design, can decrease the learners' reliance on teacher support (Furberg, 2016).

Data from six master's level groups (24 students in total) showed that in some cases, the groups' advancement was greater with the online training resource than with the initial pencil-and-paper version (Tammeleht, 2022). Master's students working with ethics cases collaboratively but without external facilitation from a teacher achieved the multi-structural level of understanding (all groups displayed at least two topics on this level). The analysis of the learning process through group reports revealed that groups dealt with all the topics and achieved the multi-structural level of understanding in most cases, some even a relational level while using the computer-supported collaborative ethics resource.

How to Assess Collaborative Learning?

The perceived understanding accumulated through the collaborative learning process indicated in e-portfolios ($N = 21$) showed that individuals who worked in the same group usually indicated they had reached the same level as their group mates (Tammeleht, 2022). In five out of six groups the e-portfolio and the self-reflection matched, i.e., the observed and the perceived learning outcome were the same. This suggests that learners can evaluate their levels of understanding quite adequately.

The self-reflections indicated that more than 90% of the participants considered working collaboratively in a group beneficial.

User experience reports from three groups of mostly master's level students in different disciplines suggested a group-report template to be helpful, introducing the idea of levels of learning in instruction design, and providing more choices of cases, including the opportunity to work with their own cases. We tested CSCL with five groups of bachelor's-level students (N = 20), and five groups of doctoral candidates (N = 18). Indeed, both the bachelor's students and the doctoral candidates reached the threshold level of multi-structural understanding or higher. Also, the teacher-rated assessment and the students' own self-perceived levels of understanding of ethics and integrity matched, suggesting that students can quite accurately analyse their own learning related to ethics and integrity given appropriate reflection tools. The groups consisting of doctoral candidates did not feel a need for facilitation but appeared to have engaged in peer scaffolding when necessary. Indeed, one of the benefits of collaboration is that it allows group members to gain continual feedback on their ethical decision making (McCormack & Garvan, 2014). Feedback on the sustainability of one's ethical reasoning in research ethics has been identified as one of the core pedagogical elements supporting learning (Rissanen & Löfström, 2014).

Conclusions

We have reviewed the literature on case-based and collaborative learning in the context of ethics and integrity training and illustrated ideas from the literature with examples from data that we collected from students at bachelor's, master's and doctoral levels engaging with case-based materials in groups; sometimes CSCL.

The literature suggests that cases that have sufficient details and an inherent conflict or problem, and which allow learners to elaborate are particularly beneficial. Considering the SOLO taxonomy, elaboration is indeed associated with higher levels of understanding and consequently, cases that encourage elaboration, may be particularly beneficial as opposed to cases that do not support this cognitive activity. We also identified some caveats, such as wording cases poorly, and taking for granted that the ability to identify ethical issues in case-based learning increases with the increased experience or exposure to ethical content (for counter evidence see Hébert et al., 1992; Sanders & Hoffman, 2010; Sparks & Hunt, 1998).

We identified that collaborative learning is effective in case-based training for developing research ethics and integrity competencies. It appears that the use of co-creating and sharing epistemic objects, such as portfolios and group-work reports was helpful in supporting groups staying task oriented and geared towards not just finding any solution, but to find a good solution (see Stahl & Hakkarainen, 2021). The collaborative process was also facilitated by computer-supported learning. Indeed, in some cases it appeared even more effective in terms of providing the groups of learners with the support they needed. In CSCL, the learners even engaged in peer scaffolding, making true use of the opportunities provided by collaboration

and ensuring vital feedback in the sustainability of individual group members' ethical reasoning.

Based on our reading and the observations from our own data, we can summarise the key factors of case-based and collaborative pedagogy believed to support learning of research ethics and integrity as follows:

- Case-based learning supports the gradual progression towards higher levels of understanding.
- The SOLO taxonomy provides a good starting point for designing instructions and ensuring that tasks encourage higher levels of understanding, and it may be used as an assessment tool by both the facilitator and the learners/groups.
- Using cases is beneficial, but attention should be paid to case quality and variety.
- Case-based learning can make content realistic, relevant, and contextually valid.
- Cases can be used to support learners' own elaboration, i.e., cognitive activity for deepening their understanding of a phenomenon.
- Well-worded cases provide sufficient direction, but do not unnecessarily restrict the learners' thinking processes.
- Collaborative case-based problem-solving supports group knowledge building and understanding.
- Dealing with cases collaboratively provides support in the zone of learners' proximal development as peers provide support.
- Using epistemic objects, such as portfolios or group reports, allows learners to maintain a task-oriented learning process
- Computer-supported learning has been identified as a way to support collaborative learning. Designing instruction online provides additional structure and support to the learners.

We conclude that a case-based collaborative approach to teaching ethics and integrity is supported by our observations of learning processes, considering how students progress from basic to more advanced levels of understanding.

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Chapter 10
Researching Academic Integrity: Application of Social Sciences Research Methods

Inga Gaižauskaitė and Natalija Valavičienė

Abstract To a large extent, research on academic integrity focuses on the behaviour and attitudes of academic community members. Issues of plagiarism and cheating among students, research misconduct, corruption, or contract cheating – questions that researchers raise in academic integrity contexts are often complex and could be regarded as sensitive. Furthermore, the nature of research questions in academic integrity carries risks of bias by research participants providing socially-desirable answers, reluctance to reply openly or truthfully, or fear of revealing self-incriminating information. The choice of research approach and data collection methods, research design, and research process decisions in academic integrity research, thus, requires careful consideration of how to find answers to research questions and collect reliable data but at the same time not to harm, disturb, or stress research participants. The chapter presents social sciences research methods applicable to studying academic integrity and discusses available alternatives for data collection, covering both challenges and potential solutions. Beginning from more traditional data collection approaches, such as quantitative surveys and qualitative interviewing, this chapter looks into other possibilities that could enrich academic integrity research, such as unobtrusive data collection methods and visual methods.

Keywords Survey · Interviewing · Unobtrusive research · Visual methods · Sensitive research · Academic integrity

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Introduction

Although fostering academic integrity, and creating a culture of it, in an education and/or research community is a laudable aim, research on academic integrity, paradoxically, often turns to the opposite of integrity. Research often focuses on breaches of integrity, malpractices, and looking into reasons, motives, or circumstances of people's involvement in such practices. Academic integrity research questions, one way or the other, encompass questions on academic dishonesty (e.g., plagiarism, contract cheating, falsification, corruption, unauthorised collaboration). This focus has specific implications for academic integrity as a research topic. It can be regarded as a *sensitive* research topic. There can be varied perspectives on what exactly constitutes sensitivity; however, commonly, sensitive research is a study that may have negative or unpleasant consequences or implications for participants (Sieber & Stanley, 1988), focuses on topics that are intimate, could discredit or incriminate (Renzetti & Lee, 1993), or, more generally, could pose a threat (such as intrusion, sanction, or political threat) to those involved in research (Lee, 1993). Sensitive research can elicit stronger (yet again, unpleasant) emotions (Lee, 1993). Academic integrity research potentially has these features, particularly when studying self-incriminating behaviours, deviations from socially- or academically-acceptable practices, conflicting feelings, and a range of other "charged" topics.

Moreover, academic integrity research is inherently bound to an institutional environment where research participants (e.g., students), individuals, or groups are targeted by research questions (e.g., classmates, student supervisors). In some cases, researchers belong to the same community. The institutional environment creates additional pressures in combination with potentially sensitive research questions. It may prevent participants' openness, cause response bias, induce fear of disclosure or sanctions, or induce worries about harm to reputation, relationships, and other factors counter to data quality (Gaižauskaitė et al., 2022). Therefore, researchers should consider these implications when selecting their research approach, method (s), and process decisions. There is no "ready-to-go" recipe for the best choice; in each study, researchers choose from available and feasible alternatives because any approach or method has advantages and limitations. Decisions depend not only on methodological requirements and guidelines but also on the competencies that a researcher or a team has, the availability of resources, pragmatic constraints, and many other circumstances of each study. This chapter focuses on data collection methods available in social sciences methodology that have been, or could be, efficiently applied in academic integrity research. We attempt to review the key strengths of selected methods, point out some of the challenges, and suggest potential solutions or innovations.

This chapter has been prepared by combining social sciences research methodology literature; a review of methods currently applied in research on academic integrity; the research experience of the authors of the chapter, and some lessons learned in other fields of research that deal with similarly sensitive, and/or complex phenomena (e.g., research on trust). The first two sections discuss question-based

and conversation-based data collection approaches well known in academic integrity research: questionnaire-based quantitative surveys and qualitative interviewing. Next, we look into other possibilities that could enrich academic integrity research but do not directly engage with research participants, focusing on unobtrusive research approaches. Finally, we turn to the potential value of combining research approaches, and methods, and using less frequently employed research techniques.

We must notify the reader that the scope of this chapter is limited and does not discuss many important elements linked to data collection methods, such as sampling or research ethics. However, we believe that our concise overview of methods will be a useful starting point both for those new to academic integrity research and those looking for solutions that enhance their current research on academic integrity.

Surveys as a Questionnaire-Based Data Collection Method

In social research, surveys are a well-established and widely used research approach distinguished by the form of data they produce (i.e., structured variable-by-case sets of data) and the method of analysis they employ (i.e., describing the characteristics of a set of cases and drawing inferences by comparing cases) (de Vaus, 2014). Although survey-type data sets can be produced using different data collection techniques (de Vaus, 2014), in this chapter we focus on questionnaire-based surveys (Fowler, 2009; Groves et al., 2009; Tourangeau et al., 2000), which have been common in academic integrity research (e.g., ICAI, n.d.). Surveys have been used to measure self-reported academic integrity behaviours, knowledge, attitudes and/or beliefs concerning a range of topics [e.g., contract cheating (Bretag et al., 2019), plagiarism (Blečić et al., 2022), institutional strategies and/or policies (Glendinning & Orim, 2022), research conduct (Salminen & Pitkänen, 2020)]; from varied target groups [e.g., students (Caldas et al., 2022), faculty (Kier & Ives, 2022), researchers (Agnoli et al., 2017; Artino et al., 2018)], and in diverse academic environments [e.g., secondary school education (Ernst & Gerth, 2021) or university education (Awdry et al., 2020; Awdry & Ives, 2022); in-class learning and/or online learning (Harton et al., 2019)] to name a few. The advantage of survey research is that structured, predominantly (semi) closed-ended questions, can be efficiently used to collect data about objective and subjective dimensions of academic integrity from (usually) large samples of individuals (respondents). Generally, each respondent answers the same pool of questions with the same pre-defined answer alternatives. This method produces a large structured data set that allows description and comparison of cases (e.g., identifying if students and faculty hold similar attitudes about plagiarism or determining if students from different study programs or with different socio-demographic characteristic also differ in their study practices). Survey data collection instruments (i.e., questionnaires) can be used repeatedly in an identical form over time and/or across space (e.g., across institutions or countries), thus it is applicable for longitudinal and comparative research. An example is the well-known

McCabe student survey (McCabe, 1992; ICAI, n.d.), which has become "the largest student survey of academic integrity in the world" (ICAI, n.d., par. 1).

Although these advantages may encourage a preference for questionnaire-based surveys in academic integrity research, one must keep in mind that producing good (i.e., reliable and valid) survey data is challenging. Survey methodology literature outlines in detail what is required to ensure survey data quality (see, for example, Fowler, 2009; Groves et al., 2009; de Vaus, 2014). Here we highlight several points that academic integrity researchers should consider when planning, implementing, and assessing the quality of survey research. First, we would like to stress the linkage between a researched phenomenon's conceptual and empirical levels. Survey research aims at analysing – and more specifically measuring – abstract concepts that represent a phenomenon in question. Academic integrity, honesty, plagiarism, cheating, trust – these are all abstract meanings summarised into concepts for communication. The challenge is that concepts do not have a fixed meaning; in their abstract form, they cannot be observed or measured in reality (Babbie, 2007; de Vaus, 2014). Therefore, "conceptualisation and operationalisation" (Babbie, 2007, p. 121–151) or "descending the ladder of abstraction" (de Vaus, 2014, p. 41–54) are the key processes that must be implemented to develop valid and reliable survey questionnaire items to measure, for example, the frequency of "plagiarism" behaviour among a sample of students. Just a quick search reveals that there is a range of definitions and types under the label of "plagiarism" in academic integrity literature (Tauginienė et al., 2019); moreover, perceptions of prospective respondents on what they understand as "plagiarism" may also differ (Leonard et al., 2015). Therefore, the starting point is to define the meaning of the main concepts in a particular study (i.e., what does plagiarism mean in your research?). Next the researcher must translate the defined concept to the level of dimensions and indicators (Babbie, 2007; de Vaus, 2014); that is, specific, tangible manifestation of the behaviours, attitudes or characteristics that we can identify as expressions of the concept (in this example – plagiarism) in a researched reality.

Indicators with a form of measurement turn into survey questions and subsequently, a questionnaire. At the level of a questionnaire, broad, abstract, vague, theoretical, relative concepts or terms should be avoided and the presence of such concepts or terms is not a sign of a good questionnaire (de Vaus, 2014; Fowler, 2009; Groves et al., 2009; Lenzner & Menold, 2016; Tourangeau et al., 2000). Proper operationalisation prevents miscommunication between a researcher and respondents. Ideally, the meaning of the question intended by a researcher should correspond to the interpretation of that question by each respondent; otherwise, the survey question will not work or the result produced will not be meaningful or useful (Conrad & Schober, 2000, 2021; de Vaus, 2014; Lenzner & Menold, 2016; Tourangeau et al., 2000). The more space there is for different interpretations of what a survey question or words in it mean, the more equivocal the answers that researchers collect. For example, if we ask students directly about their "cheating", quite likely we will end up with no real knowledge of what each respondent considers to be "cheating"; how much variation there is in perceptions of individual

respondents, and, most importantly, if/to what extent their perceptions correspond to what we as researchers defined as "cheating".

Moreover, many concepts of interest in academic integrity research are "loaded", that is, they carry negative meaning or indicate morally and/or socially unacceptable behaviour, thus discouraging openness of respondents (Krásničan et al., 2022). Therefore, abstract concepts must be translated into the neutral language of indicators, for example, if we want to measure levels of plagiarism, we should avoid using the term but instead use items of actual actions that are considered to be varied forms or levels of plagiarism. Krásničan et al. (2022, p. 33–36) illustrate these issues in research on contract cheating, demonstrating an additional linguistic challenge (i.e., translation of concepts) in cross-cultural surveys. Suppose a researcher cannot avoid abstract concepts in a questionnaire. In that case, one solution is to define the term in the questionnaire perhaps with a concrete example (de Vaus, 2014; Fowler, 2009). Other specifications are also crucial for good measurement, such as specifications of relevant timelines or circumstances (e.g., "in the last exam session that you had"; "during an online exam").

A reliable and valid questionnaire is essential for the quality of survey data. If a questionnaire contains major flaws and mistakes it will not work as a good measurement tool (for an extensive outline of the main mistakes and suggested solutions see, for example, de Vaus, 2014; Fowler, 2009; Tourangeau et al., 2000). Thus, results obtained from a flawed questionnaire will lose their value, be hard to interpret, or will simply be misleading. In addition, implementing a questionnaire is a potential issue in academic integrity research. Keeping in mind the sensitivity of academic integrity related research topics and phenomena, researchers need to ensure the most conducive mode of administering a survey. Interviewer-mediated face-to-face surveys have long been argued to provide the best response rate and quality of response (de Vaus, 2014; Loosveldt, 2008). However, for academic integrity surveys more private modes may fit better; for example, individual self-administered surveys or online self-administered surveys. Although they also have potential risks (see, for example, de Leeuw & Hox, 2008), self-administered surveys increase privacy, thus presumably more openness and honesty of a respondent, especially when questionnaires contain sensitive information questions. Additional assurance may be needed to convince respondents that anonymity and confidentiality will be maintained. If respondents doubt the promises and assurance of researchers or the survey mode provides insufficient assurance, they will be reluctant to give genuine responses (Krásničan et al., 2022; MacDonald & Nail, 2005). It is important to acknowledge that academic integrity surveys face risks of biased or concealed answers, lower response rates or biased samples, and higher rates of unanswered questions/unfinished questionnaires (Gaižauskaitė et al., 2022; Krásničan et al., 2022). Therefore, researchers should be transparent when assessing the quality of obtained survey data and careful when interpreting and reporting survey results.

These precautions should not prevent researchers from using questionnaire-based surveys in academic integrity research but enhance their quality. However, researchers should remember that the reasons to apply the survey method are

simultaneously their limitations. In producing structured data and applying questionnaires to large samples, surveys do not allow for in-detail or in-depth responses, answer alternatives have to be limited and uniform, and questions and answer alternatives are decontextualised (de Vaus, 2014). Therefore, alternative methods should be considered if research aims at the latter properties in data.

Of course, to some extent, open-ended questions can be included in survey questionnaires and meaningfully complement the results obtained via closed-ended questions (e.g., Kier & Ives, 2022). However, open-ended responses in their logic are more qualitative, thus their processing and analysis "deviate" from the standard procedure of typically (semi) closed-ended survey questions. If a sample is quantitatively large, one must be aware of the time- and effort-consuming work that is required to analyse data obtained via open-ended responses in survey research.

Qualitative Interviewing: In-Depth Insights Into Participants' Realities

Qualitative interviewing is used widely in academic integrity research (e.g., Devlin & Gray, 2007; Goddiksen et al., 2021). Individual interviews and focus group discussions (the two best-known forms of qualitative interviewing) are commonly applied when researchers aim to reveal detailed, contextualised, reflective perspectives and experiences of those engaged in academic integrity processes: students and staff stakeholders, such as teachers, administrators, librarians, or academic support staff (see, for example, Glendinning & Orim, 2022; Mansoor et al., 2022; Stavride & Kokkinaki, 2022). Individual interviews and focus group discussions are reflexive data collection methods, based on intensive interaction between research participants and researchers. Individual interviews rely on individual relationships between a participant and a researcher. In contrast, the focus group method by its nature – through group discussion – helps to reveal new points of view that go beyond the limits of individual experience and are created via the interaction of research participants among themselves (though with the guidance of a researcher/moderator) (Hennink et al., 2020; Krueger & Casey, 2009).

Some researchers (e.g., McCabe, 1999; Alsuwaileh et al., 2016) argue in favour of qualitative interviewing by highlighting the weaknesses of quantitative research, which may fail to capture the complexity of social phenomena and in-depth, real-life accounts of social actors. They claim that quantitative research masks much of the information needed to better understand academic integrity; it provides information about relationships but does not reveal the nature of these relationships (Alsuwaileh et al., 2016). On the contrary, during qualitative interviews research participants allow researchers to look at the situation through their eyes and words (Hennink et al., 2020.).

Qualitative interviewing is strong in its flexibility (Hennink et al., 2020). It gives the opportunity to hold a question-guided, but not rigid, conversation, to ask

additional questions, to prompt elaboration on grey zones, and to provide examples that help to grasp the subtlest nuances of the topic under consideration. An interview is primarily a time-long conversation, during which a research participant has time to think and reflect on the topic, to remember important aspects, and to tell the remembered thing at any time during the interview and in the research participants' preferred wording. Thus, a researcher can delve into a better understanding of the meaning as intended by participants.

At the same time, qualitative interview methods suffer from known risks to data reliability. Since academic integrity is a sensitive topic encompassing questions on deviant, undesirable, and/or unethical behaviour, it is necessary to create a favourable environment for interview conversations so that research participants want to talk openly and, if applicable, disclose their engagement in such behaviour or experience with conflicting circumstances. The advantage of qualitative interviewing in academic integrity research can only be achieved if research participants trust a researcher and feel comfortable revealing their stories. During an interview, it may be easier for a research participant to talk about others, but not about themselves. It may be easier to reveal their own opinions, but not always the motives of, for example, dishonest behaviour. An interviewee can project under what circumstances they would justify dishonest behaviour, but telling of their own dishonest behaviour may lead to unpleasant feelings.

Moreover, the researcher effect in qualitative interviewing, albeit unconscious – exists. When research participants publicly, even in the eyes of only one person – the interviewer – seek to appear more positively, it is unpleasant for them to discuss their own misbehaviour. Researchers acknowledge that we can never be sure that research participants actually experienced what they say they experienced (Firmin et al., 2007). Defense mechanisms may be in place to protect self-image against the anxiety experienced during research participation. Therefore, the professionalism of a researcher is required here, which would allow for establishing a rapport with research participants and create an environment of trust (Hennink et al., 2020; King & Horrocks, 2010).

Difficulties may also manifest during recruitment processes. It is always easier to recruit "good" participants, who adhere to the values and principles of academic integrity; however, the experiences of those who have breached academic integrity rules are of particular value when aiming to understand what leads to unethical behaviour. Such participants may be difficult to reach or reluctant to participate. Recruitment through self-selection, when, for example, students join the research by contacting the researcher, may result in a limited number agreeing to join, as Davis's (2022) experience shows, or the self-selected cases may not reflect the variety of experiences needed to answer a research question. Therefore, researchers encounter a difficult task in balancing the need to be proactive when motivating participants to take part in academic integrity research and putting all necessary effort to build rapport with potential research participants from the very first contact with them. General qualitative interviewing methodology literature provides numerous guidelines around the factors that can affect the success (or failure) of an interview conversation, including arranging a neutral and safe environment, the choice of

interviewer/moderator, the style of conversation, and even the appearance of interviewer/moderator (see, for example, Davies & Hughes, 2014; Flick, 2007, 2014; Hennink et al., 2020; King & Horrocks, 2010). In academic integrity research, safeguards against identification and assurance of confidentiality are particularly important (Gaižauskaitė et al., 2022).

If individual interviews provide a possibility to go deeper into each participant's case, focus groups (as a form of interviewing) allow gathering of more diverse information at once and use their strength to create an engaging environment for discussions allowing new ideas and insights to emerge that would be impossible in individual interviews (Hennink et al., 2020; Krueger & Casey, 2009). Based on communication and interaction between participants, focus groups are useful in researching participants' attitudes toward academic integrity, their values, expectations, perceptions of their role in promoting academic integrity, and their behaviours and preferences. Gullifer and Tyson (2010) conducted a focus group study to explore students' perceptions of plagiarism. They selected focus groups as the main data collection method, which placed students as experts and thus engaged them in discussion minimizing the interaction between the moderator and the individual members of the group. Horizontal interaction in the group encouraged sharing experiences and explaining views more freely. Still, face-to-face focus groups may be inappropriate for discussions where anonymity inside the discussion group is impossible. Computer-facilitated focus groups (Packalen & Rowbotham, 2022) can overcome this barrier. The combination of anonymously written entries with a conversation, used by Packalen and Rowbotham (2022), created a comfortable environment for students to provide honest opinions about their views on academic integrity, and conversation with their peers and the facilitator enabled a potentially deeper evaluation of the topic.

In addition, another important practical concern is the scheduling of focus groups. Since the focus groups require gathering all participants simultaneously and in the same place, it is important to select a proper and convenient time for all potential participants. For example, the specific time in the academic calendar may impact students' willingness or possibilities to participate in focus groups. As the experience of Richards et al. (2016) shows, due to the constraints of their project schedule, focus groups were organised when students were completing assessments, which decreased the number of eventual participants.

Individual interviews and focus group discussions allow additional tools, such as scenarios and dilemmas related to academic integrity (Packalen & Rowbotham, 2022), or they can be combined with visual techniques (see the section below), thus having the potential of producing multi-layered data. Moreover, observing the non-verbal language of research participants provides much additional material that can be priceless to a skilled researcher. However, we would like to stress that in qualitative approaches, researchers are active participants in the data collection process, therefore the qualification, preparedness to conduct interviews and even their personal qualities may result in the success or failure of the research (Hennink et al., 2020). In addition, qualitative data analysis is time and effort consuming. Individual interviews or focus group discussions may produce data corpuses of

hundreds or thousands of pages. Therefore, when choosing these methods, researchers should clearly understand the challenges of qualitative data analysis, reasonably choose the most appropriate strategy of multiple methodological possibilities, and have the skills required to conduct it.

Unobtrusive Methods for Academic Integrity Research

In contrast to surveys and qualitative interviewing, unobtrusive research methods do not rely on conversations with people, asking them questions or otherwise directly disturbing their social environment (Kellehear, 2020). Unobtrusive research systematically *observes* people's behaviours; therefore, such methods do not include questionnaires, interviews, tests, manipulative experiments, or other interfering tools. In researching academic integrity, using unobtrusive methods can provide valuable insights that will not affect participants' reactions and tensions produced by a sensitive topic. The main advantages of unobtrusive methods, therefore, are their capability to assess actual behaviour instead of self-reported behaviour, relatively easier access to data, repeatable results, no interruption to peoples' activities and time, safety due to the anonymity of the researcher, no effect by the presence of the researcher, also these methods are relatively inexpensive and good for longitudinal study designs (Kellehear, 2020). As Mastin et al. (2009) argue, measuring academic integrity and observing academic dishonesty directly is difficult, particularly in an online environment. Therefore, unobtrusive methods may be an efficient tool for discovering the complexity of academic integrity. Unobtrusive approaches allow "researchers to capture what people actually do and the actual outcome of their behaviour or actions rather than what they subjectively think they do or how they retrospectively reflect on their behaviour" (Gaižauskaitė et al., 2022, p. 55).

However, when selecting a research method, the disadvantages should also be considered. As Kellehear (2020) points out, the main issues of unobtrusive methods relate to the quality and completeness of original records, researchers' capabilities to understand the context and interpret the findings, the possibility of intangible intervening variables, selective recording of observational data, over-reliance on a single method, and limited application range. Considering the main weak points of unobtrusive methods, a researcher can minimise the weaknesses and maximise the strengths in designing an academic integrity study.

When planning to use unobtrusive methods, a researcher should think carefully about the huge amount of data produced by people's behaviour and decide what specific data may be useful and informative for the research. Students, teachers, administrative staff, parents, and other educational stakeholders – intentionally or unintentionally – all leave physical or digital traces. Even trash can be a source of information in researching academic integrity. An example is Pullen et al.'s (2000) unobtrusive study of cheating, where they analysed discarded "cheat sheets" in universities. The scope of potential information sources for unobtrusive research is

very wide and depends on a researcher's creativity as to what they will find most useful for research. Below are some suggestions that apply in academic integrity research.

One group of unobtrusive data collection methods is related to using *digital tools*, such as learning management platforms or online examinations, engaging in data mining or digital traces studies, which can be valuable tools for researching study practices and malpractices, such as cheating. Learning management platforms allow information gathering about student behaviour during online assignments. These tools are applied for examining cheating as well as the efficacy of various measures, such as appealing to student honesty or requiring them to pledge their honesty to mitigate cheating (Pleasants et al., 2022). The main feature of these learning management platforms is the possibility to gather information about students' navigation away from a test page in order to use additional resources or cheating by a student during an online exam or test.

For unobtrusive cheating research, students' online and offline grades can be compared as they were in the study by Ridley and Husband (1998). Here, students' grades were compared between online and offline delivery of the same course as potential indicators of academic cheating. However, to apply this method the researcher should be able to identify statistically significant differences between online and offline grades. Additionally, the course needs to have two delivery modes, both online and offline, to have the opportunity to compare the grades.

Teclehaimanot et al. (2018) in investigating how to ensure academic integrity in online courses, used three online testing environments for examinations over sequential semesters. The data were analysed to determine whether differences across the testing environments were statistically significant. As this was a long-term study, collecting data from more than one semester in order to be able to compare different testing environments the study did not use a control condition, which limits the ability to draw conclusions concerning differences in testing or cohorts account for their results.

Another group of unobtrusive data collection is *document analysis*. The term "document" covers documents understood as "traditional" documents or records, such as academic integrity policy documents, codes of ethics, and variety of other documented sources, for example, in the form of online forums, blogs, or newspapers. Such documents already exist; thus, a researcher can collect information at any time, especially when documents are online. Additionally, there is no need to make specific arrangements with research participants or study environment (as, for example, in the case of qualitative interviews). For example, Miron et al. (2021) examined universities' policy documents for contract cheating language to reveal the description of contract cheating in Ontario universities, to compare it to the core components of exemplary policy, and to provide insights for the revision of policy papers. To explore integrity management practices in high schools, Tauginienė and Gaižauskaitė (2019) applied qualitative content analysis of publicly available policy documents, retrieved from high schools' websites, about the management of school students' behaviour. Document analysis also may help to research students' experiences. When researching cheating, Redding (2017) applied document analysis for studying the content of editorials written by students in high school

newspapers. This method allowed the researcher to examine their discussion about ethical dilemmas and decision-making and provide an opportunity for a more nuanced explanation of high-achieving students' rationalizations to cheat. This content could have been missed if using, for example, only surveys.

In summary, unobtrusive methods are not new, but the field of researching academic integrity is still discovering these reliable and valid methods. Regardless of whether unobtrusive methods would be a single or supplementary method, they can add value in revealing additional layers of academic integrity phenomenon and providing more nuanced knowledge of its complexity.

Mixed Methods, Multiple Methods and Other Suggestions

In previous sections, we discussed separate and common social science research methods for data collection in academic integrity research. However, keeping in mind the characteristics of academic integrity topics as outlined in the Introduction, we believe that whenever possible, a combination of research approaches, methods and/or techniques would be conducive to providing well-grounded answers to academic integrity research questions. In this section, we would like to propose several ideas.

First, when feasible, *mixed-method research* combining quantitative and qualitative approaches could be a good solution to employ the advantages of both and produce more detailed and better-founded data on complex and/or sensitive topics of academic integrity. There is more than one way of designing mixed research, however, mixing methodologies (and/or methods and techniques) generally provides fuller, richer, and more comprehensive information than a single-method study design (Schoonenboom & Johnson, 2017; Wisdom & Creswell, 2013). Two main directions exist for integrating qualitative and quantitative approaches to data collection and analysis: sequential and concurrent (convergent) (Bazeley, 2018; Plano Clark & Ivankova, 2016; Wisdom & Creswell, 2013). Sequential mixing presumes that one approach is used before the other. Commonly, qualitative methods like interviews or focus groups can be used to develop a quantitative data collection instrument (questionnaire or questions) presuming increased appropriateness and quality of measures. In a reverse sequence, at the first phase, a quantitative survey can be conducted, followed by qualitative interviews and/or focus groups aimed at a more detailed interpretation of the quantitative results. The concurrent mixed method design means that qualitative and quantitative data are collected simultaneously and are used to compare and converge the results. Regardless of the direction of integration, varied combinations of qualitative and quantitative methods can be involved. However, in any case, the presumption is that neither qualitative, nor quantitative data stands alone, and precisely the combination gives the value of a more fulsome and in-depth understanding of the phenomenon researched.

An example of a mixed (sequential) design is a study on academic dishonesty among students by Alsuwaileh et al. (2016) who used qualitative interviews to

generate hypotheses and construct a questionnaire-based survey, thus triangulating the data from two research approaches. Likewise, Skaar and Hammer (2013) used a survey to collect quantitative data on the frequency and extent of plagiarism among students writing essays with internet access, and later interviewed students to explore their views on internet access and plagiarism during essay writing and went deeper to the causes of plagiarism cases. Similarly, Amrane-Cooper et al. (2021) combined survey and semi-structured interviews, which were intended to investigate issues identified in the student survey. An example of a concurrent mixed method design is the study of Firmin et al. (2007), who mixed in-depth qualitative interviewing with an experiment as a simulation of cheating. A further example comes from Davis (2022), who combined qualitative interviewing with document analysis methods.

Second, a "cousin" of mixed method design is a *multiple method research*, when a study employs more than one qualitative data collection method or more than one quantitative data collection method (Schoonenboom & Johnson, 2017). The rationale to use multiple methods is similar to mixed method design: aspiration to obtain more comprehensive data by choosing best-fit combinations of methods depending on the research question, target groups, or other circumstances. The authors of this chapter, with their team, applied a multiple-method approach in a qualitative academic integrity study in an institution, using focus group discussions with students and in-depth individual interviews with faculty. We chose different methods to ensure the most acceptable environment for different target groups to open up about their academic integrity experiences, behaviour, and perceptions. Students were more comfortable talking when surrounded by "others like me". In contrast, academics could reflect on some of the more sensitive or disturbing experiences when speaking more privately only with a researcher. The study also included document analysis, which set the background for interpreting qualitative multi-method data. Such a combination produced rich, to some extent unexpected, but informative, data on the situation of academic integrity culture at an institution.

Finally, we encourage researchers to look for innovative data collection techniques or their combinations with "traditional" methods like interviews or surveys to obtain in-depth data on academic integrity topics. Some suggestions may come from other fields of "sensitive", complex, and elusive research topics, where researchers acknowledged the potential difficulties for research participants to discuss these topics verbally and looked for an additional or alternative type of data (e.g., de Groot et al., 2020; Muethel, 2012; Saunders, 2012). Here we would like to share insights on the potential application of visual and gamified methods for academic integrity research. To describe it concisely, *visual methods* mean that research uses visual images (such as photographs, videos, drawings, maps) to explore participants' experiences, prompt their memories and self-expression and delve into their meaning-making (Frith et al., 2005; Glaw et al., 2017; Harper, 2002; Knowles & Sweetman, 2004). Visual methods can be used alone or can be combined with verbal methods, such as oral interviews or written narratives eliciting better understanding of experiences, easier expression of abstract concepts, and thus higher quality of data (Bagnoli, 2004, 2009; Copeland & Agosto, 2012; Harper, 2002; Juozeliūnienė, 2014; Juozeliūnienė & Kanapienienė, 2012). One of the authors of this chapter

used a technique of drawing trust maps in combination with qualitative individual interviews to better understand how research participants perceive and experience the relation of trust in their social interactions, which proved to be a very efficient combination to retrieve tangible participants' accounts on such an elusive and, to an extent, sensitive phenomenon as trust (Gaižauskaitė, 2022). An example of visual methods in academic integrity research is a study by Janczukowicz and Rees (2017) who employed a multi-layered analysis of mind maps. Aiming to understand the relationship between academic and medical professionalism among medical students, they analysed both textual (words) and visual (pictures) elements of the mind maps created by the students. Although acknowledging the difficulties of such a method, the authors firmly advocate further use of visual methods as they can produce data that more traditional methods like interviews may fail to notice (Janczukowicz & Rees, 2017).

Likewise, researchers use *gamified techniques* when dealing with complex and/or sensitive topics to get insights that could be unavailable using other or solely verbal and/or questions-based methods. Examples of gamified techniques are card sorting (e.g., Saunders, 2012), board games (e.g., Muethel, 2012), or repertory grids (e.g., Ashleigh & Meyer, 2015) often used in combination with an interview or narrative methods. To give a glimpse into the application of such techniques, a board game was used in Muethel's (2012) study to identify both universal and culturally specific understandings of trustworthiness. In the board game, Muethel (2012) used several values that were linked to trustworthiness in previous studies. First, participants were asked to rank and define each value; then, to describe how each value would reflect in someone's behaviour, and, finally, to explain the logic they used when ranking the values. Muethel (2012) concluded that the benefit of applying a board game technique manifested in the interpretive power that it elicited and helpfulness when navigating the equivocality and complexity of the phenomenon of trust. Therefore, we suggest that visual and/or gamified research techniques could be efficiently applied in academic integrity research, which often deals with equivocal, broad concepts, intuitive phenomena, controversial dimensions of behaviour, arrays of emotions and/or sensitive contexts.

However, it is a must to note that mixed or multi-method research and visual or gamified techniques also require additional effort, time and resources in preparation and implementation. The corpus of data, expectedly, will also be larger than in a simpler or single-method study. Therefore, researchers should carefully assess the feasibility of these approaches in their research.

Conclusion

When choosing a research approach and a method (or methods), exploring the advantages and disadvantages of each is a must. Additionally, it is necessary to consider the purpose of the research, the research problem, and the qualification of the researchers. As we have demonstrated, no "ideal" choice exists for an academic

integrity research approach in the social sciences. In each academic integrity study, researchers should consider the risks that their questions may place to the well-being of research participants, the obstacles that could prevent participants from being sincere, and the resources required to overcome potential challenges.

Question and conversation-based methods capture self-reported academic integrity behaviours, knowledge, attitudes and/or beliefs about a range of topics, target groups, and environments. Surveys aim to measure and produce structured data in big samples while missing much detail, whereas qualitative interviewing goes deep into subjective meanings of carefully selected cases. In both cases, however, it is important to remember that data are based on responses "filtered" through people's subjective minds and experiences. On the one hand, it may be exactly what we are looking for; on the other hand, as we have shown, these methods are reactive and sensitive to the research environment, tools, and interactions.

Unobtrusive methods, conversely, do not interrupt the lives of individuals, and consequently are unaffected by the researcher's presence. These methods, employing analysis of the various traces of individuals' online and offline behaviour, are capable of assessing actual behaviour instead of self-reported behaviour and have relatively easier access to data. The main work and challenges are, however, to choose, access and consistently collect the sources of information that would be most appropriate to answer research questions.

Application of visual and gamified methods for academic integrity research is not widespread so far, however, their features may be especially useful when verbal methods are insufficient to reach the information of interest from the target group. When the research is related to broad concepts, intuitive phenomena, controversial dimensions of behaviour, the array of emotions, or sensitive contexts, visual and/or gamified methods may be applied alone or in combination with other methods.

Academic integrity, being a complex, sensitive and bias-prone phenomenon, can be studied using different research approaches and applying various data collection methods. Depending on the research aim, a single research method may be perfect to answer a research question. Nevertheless, applying more than one research approach, data collection method, or technique will enable researchers to find an additional perspective, layer, or nuance of academic integrity.

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Chapter 11
Academic Integrity as a Way to Promote Workplace Ethical Behaviour

Jean Gabriel Guerrero-Dib, Luis Portales, and Daniela Gallego

Abstract This chapter explores the relationship between the ethical behaviour of a person as a university student and their conduct in the workplace. It explores what may be considered ethical behaviour in the professional environment, those behaviours that are common to professionally well-done work. It proposes that the construction of a culture of academic integrity can become an effective strategy to achieve moral development. The chapter is based on the findings of a study about the relationship between the ethical behaviour of a person during their undergraduate studies and their ethical performance in their professional work, where 845 professionals and students from Mexico participated. Statistically significant correlations between ethical work behaviour and independent variables such as academic integrity behaviour and quality of the ethics and compliance program were found. Ethical behaviour in the work environment of a person can be explained based on their academic integrity behaviours when they were a university student, their peers' behaviour, the perceived quality of the ethics program in their business environment, and their level of rejection of dishonesty. The chapter offers recommendations for educational institutions and professional organizations to promote ethical behaviour and some possible projects for future research.

Keywords Academic integrity · Academic misconduct · Higher education · Workplace behaviour · Compliance · Ethics · Mexico · Latin America

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Introduction

This chapter aims to explore the impact that a student's academic integrity behaviour has on their ethical behaviour as a professional in the workplace.

Corruption is one of the most serious problems that Mexico and the world faces. According to IMCO (n.d.), some data that help to measure the size of the problem in Mexico suggests that the cost of corruption is equivalent to 9% of the Gross Domestic Product, that companies lose up to 5% of their annual sales due to acts of corruption, that up to 480 thousand formal jobs are lost per year due to piracy, and that approximately 14% of the average annual income of Mexican households is destined to unofficial payments.

Although corruption refers to "the abuse of an entrusted power for private gain" (Rose-Ackerman & Palifka, 2016, p. 9), power normally associated with public servants, in most cases citizens are involved. Corruption also manifests itself in other areas, and education is not an exception. We offer some statistics to illustrate the reality of the problem of academic dishonesty in Mexico (Ayala-Enriquez et al., 2020):

- More than 70% of students in public institutions in the city of Queretaro admitted to having offered answers to their peers during an exam (Medina-Díaz & Verdejo-Carrión, 2016).
- More than 60% of students at one of the most prestigious public universities in the country plagiarized according to a self-reported survey (UNAM, 2013).
- More than 70% of undergraduate students from two universities in southern Mexico admitted to having turned in work previously done by other students (Escalante-Ferrer et al., 2017).
- More than 60% of undergraduate students surveyed at a private university report having answered an online exam with the use of unauthorized resources (Ayala-Gaytán & Quintanilla-Domínguez, 2014).

Several studies have documented the relationship between academic integrity and ethical behaviour in the work environment. All of them have found "that students who engage in dishonest activities in the academic context are more likely to demonstrate inappropriate behaviours during their professional life and vice versa" (Guerrero-Dib et al., 2020, p.2). The following table summarizes their results (Table 11.1).

Theoretical Framework

Academic Integrity

The European Network for Academic Integrity defines academic integrity as "the compliance with ethical and professional principles, standards, practices and

Table 11.1 Results of previous studies preceding this research (prepared by the author)

Researchers	Country	# Participants	Level and discipline	Findings
Sims (1993)	United States	Not stated	Postgraduate, Business	People who admitted to committing acts of academic dishonesty also reported committing dishonest acts at work.
McCabe et al. (1996)	United States	318	No data	Professionals who studied at a university with an honour code and who work in a company with a "working" code of ethics report fewer incidences of unethical behaviour.
Blankenship and Whitley (2000)	United States	284	Undergraduate, Psychology	Students who reported cheating on tests and lying for profit also reported committing professional unethical actions.
Nonis and Swift (2001)	United States	1,051	Undergraduate	Students who consider academic dishonesty acceptable commit such acts and exhibit unethical behaviour in their professional lives.
Harding et al. (2004)	United States	130	Undergraduate, Engineering	Students who commit acts of academic dishonesty commit dishonest acts in the work environment.
Graves (2008)	United States	124	Undergraduate and graduate Business	Students who commit acts of academic dishonesty are more likely to engage in unethical behaviour in their work environment.
Martin et al. (2009)	United States	158	Undergraduate and graduate Business and Management	Students who report higher rates of integrity and responsibility also report less unethical behaviour in their workplace.
Hsiao and Yang (2011)	Taiwan	215	Undergraduate, Business	Part-time students who also work and who have less clear concepts about ethical behaviour are more likely to commit acts of academic dishonesty.
Laduke (2013)	United States	Not stated	Undergraduate, Nursing	Students who exhibit academic dishonesty engage in dishonest behaviour as health professionals.
Ma (2013)	China	205	Undergraduate and graduate, Business	Students who reject academic dishonesty have stronger ethical standards.
Krueger (2014)	United States	336	Undergraduate, Nursing	There is a positive correlation between the frequency of academic dishonesty and clinical unethical practice.

(continued)

Table 11.1 (continued)

Researchers	Country	# Participants	Level and discipline	Findings
Ballantine et al. (2014)	Ireland	752	Undergraduate, Accounting	There is a correlation between the degree of tolerance to academic dishonesty and the ethical judgment used to make decisions in the work environment.
Orosz et al. (2018)	40 countries	39,905	Undergraduate	There is a strong relationship between the rate of cheating on exams by students and the level of corruption in the country.
Guerrero-Dib et al. (2020)	Mexico	1,203	Undergraduate	There is a relationship between academic integrity behaviour and workplace ethical behaviour.

consistent system of values, that serves as guidance for making decisions and taking actions in education, research and scholarship" (ENAI, 2018, p. 7). The International Center for Academic Integrity defines academic integrity as "a commitment, even in the face of adversity, to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage" (ICAI, 2021, p. 4). From these values flow principles of behaviour that enable academic communities to translate ideals into action. Some examples of how to put those ideals into practice on campuses, in classrooms, and in daily life, are: being truthful and objective; keeping promises; acting with genuineness; showing empathy; taking responsibility for decisions and actions; giving credit to other authors' works; knowing, following and applying policies consistently; taking a stand to address wrongdoings and supporting others to do the same; and overall modelling good behaviour.

According to Guerrero-Dib et al. (2020), "in the educational context, academic integrity could be understood as the habit of studying and carrying out academic work with justice and coherence, aiming to learn and motivated by the service that those learnings can provide to others. Mainly it implies diligently taking advantage of all learning experiences" (p. 3).

Bertram Gallant (2016) considers that academic integrity should be a fundamental quality of every academic endeavour. She states that it must be within the core of every teaching-learning process aimed to achieve excellence. Therefore, it must represent a goal for academic institutions that are seriously committed to academic quality.

These definitions and stances have evolved from the previously and more frequently used concept of academic integrity, which reduces it to avoiding committing acts of academic dishonesty, understood as the undeserved and fraudulent obtaining of an academic benefit (Morris & Carroll, 2016), manifested in various ways such as: copying, using non-authorized materials during and exam, plagiarism, collusion, falsifying data, impersonating, bribing, and all sorts of contract cheating.

Instruments for assessing academic integrity in educational institutions have adopted the latter approach as they have been limited to collecting information on the frequency with which various acts of academic dishonesty are committed. The perception that professors have of students' behaviour is usually asked, and students themselves are asked to self-report their degree of participation in various acts of academic dishonesty and their perception of the frequency with which their peers show integrity/misbehaviours. Academic integrity research's scope has largely focused on academic misconduct and its analogue variations of the behaviour including those facilitated by technology (McCabe, 2016; Rettinger & Bertram Gallant, 2022).

Workplace Ethical Behaviour

The workplace is the space where most of the interactions and actions related to the operations of a company take place (Wheeler, 2007). However, this "space" is not limited to the walls of the organization, but involves all those moments when employees act to achieve the company's business objectives, regardless of whether this is inside or outside its premises (Wall et al., 2017).

Workplace management is important from an ethical perspective because it encourages employees to conduct themselves in accordance with the values and principles that the organization promotes, resulting in a series of behaviours, rituals and working conditions that make up its organizational culture (Kancharla & Dadhich, 2021). Under this logic, workplace management must consider ethical elements, since this is what will allow employees to behave in the way the company expects (Alyammahi et al., 2021; Mazen Malak & Hamas, 2021; Wheeler, 2007).

Ethical leadership is one of the main elements in building a workplace based on principles and values (Kabeyi, 2018). The leader is the person who sets the example and establishes standards of behaviour that employees follow, laying the foundations for the establishment of an ethical and principled organizational culture (AlShehhi et al., 2021; Brown & Treviño, 2006). The presence of this leadership generates organizational environments with better performance and productivity, since employees know that they will all be working for the same goal (AlShehhi et al., 2021; Sarwar et al., 2020). In addition, ethical leadership enhances a healthier workplace atmosphere, increasing the levels of mental health and reducing the levels of stress (Hetrick et al., 2022). Likewise, the engagement and loyalty of collaborators increases and improves the work environment of the organization (Sarwar et al., 2020).

The establishment of an organizational culture based on ethical principles provides certainty within the organization and among its employees (Hauser, 2020). This certainty is exhibited in the fact that all its members know how the other collaborator will respond and what ethical actions they are willing to perform (Alyammahi et al., 2021). The fact that all employees share the same work ethics allows similar decisions to be made in the face of possible cases of dishonesty, which can be positive or negative (McCabe et al., 1996; Kancharla & Dadhich, 2021).

On the other hand, if the leader is corrupt or unethical, employees receive the message that dishonest actors are allowed and, in some cases, promoted (Kabeyi, 2018). In this scenario, the organizational culture facilitates corruption and the commission of different types of crimes, which range from white-collar crimes to the creation of environments of distrust and unethical behaviour (Hetrick et al., 2022; Moutousi & May, 2018). These unethical environments not only affect the mental health of the collaborator and increase stress levels, but also lead to a reduction in productivity and behaviours that put their operation at risk (Brown & Mitchell, 2010; Shin et al., 2015; Wang & Sung, 2016).

An example of this situation can be seen at ENRON, where employees conducted themselves under an ethic focused on maximizing profits at any cost, regardless of how those were achieved. This culture was promoted from top management and those employees who did not follow it were not only frowned upon, but also ran the risk of being fired. It was this same ethic that bankrupted the company, having a negative impact on all its stakeholders.

The ENRON case allows us to understand the role of the organization itself in the creation of ethical behaviours in the workplace (Yao et al., 2021). This role focuses on the creation of mechanisms that encourage or discourage certain behaviours, such as a code of ethics (Arroyo Chacón, 2018), or the creation of committees to determine whether there has been any ethical misconduct and the sanction that an employee should receive in case she or he has been found responsible for a breach (Alyammahi et al., 2021; Mazen Malak & Hamas, 2021; McCabe et al., 1996; Wheeler, 2007). Likewise, they should make known the type of behaviour that the company expects from an employee through training on the different ethical dilemmas to which employees may be exposed according to their position or area of work (Alyammahi et al., 2021; Kancharla & Dadhich, 2021).

Managing this type of behaviour is no easy task, since the employee is not only exposed to the dynamics and culture of the organization, but also receives incentives from society and the context in which they operate. If the society in which they find themselves promotes and rewards unethical behaviour or if the family context encourages the employee to behave unethically, then the company will have to make a greater effort if it wants its employees to behave ethically and with integrity.

Just as society and context influence the behaviour of employees, so does the academic and ethical training they received during their university years, as it is presented in the following section.

Relationship Between Academic Integrity and Workplace Ethical Behaviour

An individual's ethical stance is significantly influenced by the moral stance of the groups to which they belong, their family, their company, etc. The ethical values of an organization significantly impact its effectiveness.

Fig. 11.1 Summary of the relationship between the concepts explored in the theoretical framework (prepared by the author)

Certain responsibilities of an individual derive from their membership of an organization or community in such a way that, if they did not belong to it, they would no longer have those responsibilities. This is why morally sensitive people should seriously consider which organizations they should join (Elegido, 2007).

There is a strong relationship between the ethical standards of an organization and the dedication of those who belong to it to achieve its common good. Employees of ethical organizations, for example, will show greater commitment, even sacrificing their own individual interests to meet the genuine needs of their customers, in order to foster the human satisfaction of those who work there (Elegido, 2007). The people who are "closer" exert a powerful influence on behaviour and, therefore, it is essential to ensure that the standards of conduct that prevail in the environment and influence actions are such that they contribute to the realization and responsible action of individuals (Elegido, 2007). It is impossible to live life in a way opposite from what is done in other contexts. People become ethical or unethical in the very process of living their lives. "As with individuals, ethical actions in groups are not isolated events; such actions always shape the future. In the case of the individual, they shape his or her values and character. In the case of a group, they shape its culture" (Elegido, 2007, p. 383).

The main idea that articulates the concepts explored in this chapter, and it is also the central hypothesis of the reported research, is: studying in an environment that attends to and promotes academic integrity and rejects dishonesty as part of the organizational culture of the educational institution, can contribute to the moral development of the individual and eventually be reflected in the behaviour that they show in different spheres their life, particularly in their future professional and work environment. Figure 11.1 shows a graphic summary of the relationship between academic integrity behaviour and ethical behaviour in the work environment.

Research

Methodology

The research approach is quantitative, with an exploratory, descriptive, and correlational design. The study explores the concept of academic integrity, describes the characteristics of the behaviour of a group of people and establishes associations between different variables: students and work ethical behaviours.

Participants and Analysis Units

The units of analysis of the study are two different groups of participants:

- The first includes undergraduate students in the last semesters of their academic programs and graduate students from two private institutions of higher education who were professionally working at the time when the research was conducted. Both institutions are accredited by prestigious international and national organizations.
- The second group is composed by professionals at different levels of management, all of them graduates of different undergraduate academic programs, working at the time of the study in private sector companies in Mexico, from different industries and sectors. Some of these organizations have stood out for their commitment to their ethical standards according to the evaluation of the characteristics of their corporate integrity policies carried out and published jointly by "Mexicanos contra la Corrupción y la Impunidad " and "Transparencia Mexicana" (2018).

A total of 845 people – 438 working students and 407 graduated professionals – participated in the study.

Variables

The variables measured in the study are the following:

- Dependent: Ethical behaviour in the work environment (IIE), calculated from the frequency with which a worker (student or professional) self-reports his or her participation in ethical actions and/or non-participation in acts considered unethical within the work environment (conflict of interest, data protection, harassment, discrimination, bribery, etc.).
- Independent:
  - Academic Integrity Behaviour (IE), calculated from the frequency, self-reported by a worker with university studies (current student or alumni), of participation in actions in favour of academic integrity and/or non-participation in acts considered dishonest in the academic context (copying, plagiarism, collusion, contract cheating, etc.).
  - Quality of academic integrity program (IB), calculated from the self-reported perception of the implementation of different measures and practices considered essential in the academic integrity programs (policies and procedures, AI committees, student and faculty education, staff involvement, process evaluation, etc.) of educational institutions according to international standards (Glendinning et al., n.d.).

- Quality of the business Ethics and Compliance program (IIB), calculated from the self-reported worker's perception of the implementation, in his or her workplace, of different measures and practices considered essential in the organizations' business ethics programs (code of ethics, ethics training, ethical leadership, ethics committee, whistleblower hotline, etc.).
- Social rejection of dishonesty (IIF), calculated from the acceptance of statements about the social desirability of honesty and the perception of frequency of dishonest acts in the immediate environment (impact of one's own ethical behaviour, responsibility in the ethical awareness of others, moral agency, etc.).

Hypothesis

The hypothesis tested in this research was that individuals who report having experienced an academic integrity program during their undergraduate studies will report having better professional ethical behaviour than their peers who studied at universities that devoted little or no effort to promoting academic integrity.

This hypothesis presupposes other previous hypotheses:

- Undergraduate students from universities or colleges that perceive the presence of elements of an academic integrity program have better ethical behaviour than those who study at universities or colleges where there is no program or where these elements are not perceived.
- Professionals with good ethical behaviour as students have good behaviour as professionals and vice versa, professionals with unethical behaviour as students also show unethical behaviour as employees.

Information Gathering and Analysis

The "Academic Integrity and Ethical Work Behaviour Questionnaire", a tool developed and piloted by Guerrero-Dib et al. (2020), was used. It is a self-report survey that includes four sections and was constructed from different instruments and inventories used in the previous studies referred to in the introduction.

The first section requests basic demographic information about the participant, some general data, her/his academic background and work profile. The second section explores the concept of academic integrity, specifically, what is understood by this term, what perception is held about the efforts that their university makes or made to promote it and about concrete behaviours, i.e., the frequency with which they engage or not in certain acts of academic dishonesty. The third section addresses the construct of ethical workplace behaviour. The final section includes

questions that directly examine participants' agreement with the research hypotheses.

Results and Findings

The analyses were performed using regression, introducing variables progressively and including different samples, in order to be able to observe the behaviour of the model and the evolution of the percentage of the resulting explanatory level.

First, a simple regression analysis was performed, which included the academic integrity behaviour index as a predictive variable, and then a multiple regression analysis in which the quality indexes of the academic integrity, business ethics programs and the level of rejection of dishonesty were consecutively included. The results can be seen in the following tables (Tables 11.2, 11.3 and 11.4).

The table below (Table 11.2) shows the simple regression analyses for each of the samples between the index of ethical behaviour in the work environment, as the dependent variable, and the index of academic integrity behaviour as the independent variable.

Table 11.3 shows the multiple regression analyses for each of the samples between the index of ethical behaviour in the work environment, as the dependent response variable; and the index of academic integrity behaviour and the index of quality of the business Ethics and Compliance program as independent variables. It is important to note that the explanatory level of the model (R^2) at least doubles when we add a second variable.

Table 11.2 Coefficients resulting from the simple regression analysis between the index of academic integrity behaviour and ethical behaviour in the work environment

Sample	Value of p	SD	R^2	Equation
Students	0.000	0.5045	14.56%	IIE = 2.359 + 0.4052 IE
Professionals	0.000	0.3279	12.88%	IIE = 3.380 + 0.2582 IE
Total	0.000	0.4617	7.75%	IIE = 3.202 + 0.2598 IE

IE: Academic Integrity behaviour
IIE: Ethical behaviour in the work environment

Table 11.3 Coefficients resulting from the multiple regression analysis between the indexes of ethical behaviour in the work environment, academic integrity behaviour and quality of the business Ethics and Compliance program

Sample	Value of p	SD	R^2	Equation
Students	0.000	0.4821	22.16%	IIE = 1.821 + 0.3552 IE + 0.2007 IIB
Professionals	0.000	0.3006	26.94%	IIE = 2.758 + 0.2295 IE + 0.1782 IIB
Total	0.000	0.4250	21.93%	IIE = 2.383 + 0.2323 IE + 0.2350 IIB

IE: Academic Integrity behaviour
IIB: Quality of the business Ethics & Compliance program
IIE: Ethical behaviour in the work environment

Table 11.4 Coefficients resulting from the multiple regression analysis between the indexes related to the hypotheses of this research

	Value of p	SD	R^2	Equation
Students	0.000	0.4247	39.71%	IIE = 1.145 + 0.2091 IE + 0.1366 IIB + 0.3977 IIF
Professionals	0.000	0.2652	43.29%	IIE = 1.987 + 0.1279 IE + 0.1332 IIB + 0.3223 IIF
Total	0.000	0.3626	43.23%	IIE = 1.485 + 0.1278 IE + 0.1489 IIB + 0.4094 IIF

IE: Academic Integrity Behaviour
IIB: Quality of the business Ethics and Compliance program
IIE: Ethical behaviour in the work environment
IIF: Social rejection of dishonesty

Table 11.4 shows the multiple regression analyses for each of the samples between the index of ethical behaviour in the work environment, as the dependent response variable, and the index of academic integrity behaviour, the index of quality of the business Ethics and Compliance program and the index of social rejection of dishonesty as independent variables. As can be seen, the model now explains (r^2) close to 50% reducing considerably the margin of error, a fairly good level considering that we are trying to "predict" human behaviour (Minitab, 2013). It should be noted that the academic integrity program quality variable was discarded as a predictor of ethical behaviour in the workplace because it was not statistically significant (p-value >0.05) in the different regression analyses.

It is very important to note that, as can be seen in the resulting equation, the variable of social rejection of dishonesty is the one that contributes the most information in the explanation of ethical behaviour in the workplace in the optimal regression model. The main findings of this research support the hypothesis that there is a relationship between a person's academic integrity behaviour during their university studies and their ethical behaviour during their professional performance.

Working students show similar ethical behaviour in both their academic and work environments. Those who say they avoid acts of academic dishonesty in their studies also say they do not commit unethical actions in their professional environment, and vice versa, those who say they cheat in college also say they do so in their work.

Professionals with undergraduate diplomas report having a similar degree of ethical behaviour to that which they showed during their university studies. Those who report making ethical decisions in their professional work also report having made them when they were in college, and those who report choosing to behave less ethically in their work environment also did so in order to obtain their bachelor's degree.

Furthermore, the theoretical model from which we have started, which includes academic integrity behaviour, the quality of the business ethics and compliance program and the level of social rejection of dishonesty as factors that explain or determine ethical behaviour in the workplace, has been enriched by the inclusion of additional variables, among them: the perception of ethical behaviour of peers or colleagues (i.e., norms), as well as authority figures, teachers and bosses; and the

demographic characteristics of the individual, such as gender and years of work experience.

Unfortunately, previous published research does not provide enough information with which to contrast the findings. These results support the hypothesis of this research: studying in an environment that attends to and promotes academic integrity and rejects dishonesty as part of its organizational culture can contribute to the moral development of students and be reflected in their behaviour in different areas of life, particularly in their work environment.

Considering the results, academic integrity programs aligned with international standards can become a means of moral development because they allow students in their formative years to: become aware of the consequences of academic dishonesty; improve their ethical judgment on the many occasions in which they will have the opportunity to decide in favour of academic integrity in their learning activities; find in responsible and just action, sufficient motivation to act; make ethical decisions and behave ordinarily in a consistent manner.

Discussion

The results of this study invite us to raise a series of questions, the first of which concerns the scope of academic integrity programs in relation to the ethical conduct of professionals. Is it necessary to have academic integrity programs in universities to promote ethical behaviour of future graduates in their workplace?

The study suggests that integrity programs have a direct relationship with the behaviour of professionals, accentuating their commitment to ethical behaviour, while this commitment decreases when graduates have studied in educational institutions that do not have an explicit and operating policy on academic integrity.

This finding is consistent with the idea that the experience of academic integrity in educational institutions relates not only with the students' personal commitment to honesty, but is strongly linked to the organizational, institutional and social context. This systemic approach is developed by Bertram Gallant (2008), where she emphasizes the impact of: 1. In the organizational field, the dynamics that take place in class and the relationship with classmates. 2. At the institutional level, university guidelines and practices, and 3. At the social level, innovations, new practices, trends and also pressures, which condition the goals of educational work.

The conclusion here is that the educational context conditions the character formation of future graduates, and academic integrity policies have some impact on their habits, customs and ethical commitments they assume not only with regard to the learning and research activities of university life, but also on the conduct they will adopt in their professional life. What do these results tell us about educational institutions that lack a clear policy on academic integrity?

The absence of explicit policies on academic integrity and guidelines to promote integrity in class and in evaluation, leaves the response to dishonesty to each student and teacher, without the existence of a visible and shared message that ethically

guides decision making. In this sense, it is worth remembering with Brown (2005) that "most people do what they think is right, taking into account the world in which they think they live" (p. 37), however, there is the possibility that their perception of what the world is, or what is good, is incorrect. Hence, an institutional policy that clearly pronounces on integrity breaches serves as a guide and orientation to students and faculty (Roberts, 2013), denormalising the practice of cheating as a way to obtain good grades.

Now, is academic integrity training sufficient to ensure that people behave ethically in their workplace? As derived from the research itself, ethical training in the university context is necessary but not sufficient, and it is not, given the practical nature of the ethical task, which, according to Aristotelian ethics, is reinforced every day in the decision-making processes and in the repetition of behaviours, which are transformed into habits and represent the moral character of people. Hence the importance of designing working conditions that promote respect and responsibility, working environments that contribute to the ethical and professional development of workers (Brown, 2005).

As the data obtained show, the quality of the business ethics and compliance program and the ethical climate of the organizations have an important relationship with the orientation of behaviour. This is congruent with what has been affirmed from the business ethics approach; companies have their own ethos, values and moral ideals that condition their way of being and doing things (Cortina, 2000), and that undoubtedly have an impact on people.

Therefore, it makes sense that organizations with clear guidelines on what is considered ethical conduct, both inside and outside the organization, and which also enable transversal practices and strategies that promote the experience of their ethical values, have an important influence on the way in which cultural, technological and work processes are designed and developed, and on people's behaviour (Lozano, 2011).

Before jumping into conclusions, it is appropriate to review the limitations of the study.

Limitations

The limitations of this research are those of a *post facto* study, which means that the phenomena studied have already occurred and the researcher has no possibility of influencing or controlling the variables.

The sample has spatial limitations, since it is composed of responses from students and professionals who have decided to answer it, regardless of the sincerity and objectivity with which they did so; and also temporal limitations, since it was taken at a moment in time, with specific demographic data, which do not allow studying the phenomenon in a dynamic way.

Given the cross-sectional nature of the study described in the last paragraph, it is important to reiterate that the research is conducted in specific demographic

contexts, so caution should be exercised when inferring the applicability of the results to other university populations or different generational cohorts of students or employees of different companies.

The questionnaire was answered on a completely voluntary basis by those who received an open invitation from a professor and/or a manager. This means that there was a self-selection process that prevented ensuring a statistically representative sampling by university, industry, type of function and other demographic variables.

Likewise, the data collection tool is self-reporting, i.e., it reflects a persons' perception of themselves and not the observation of the person's "real" behaviour.

All this means that, the results may derive in diverse interpretations since some of the relationship between academic integrity behaviour and workplace ethical behaviour may be explained by common methods variance, social desirability, or past behaviour (at university) being a predictor of future behaviour (at work) because of a third variable such as personality.

In this sense, further analysis can be made to observe this relationship using more sophisticated statistical techniques like "Relative Weight Analysis" to estimate the relative importance of independent variables or predictors in a regression equation (Tonidandel et al., 2009) and/or "Structural Equations Model" to study the relationship between latent and observed variables and thus be able to simultaneously test the complete model, estimating the direct, indirect and total effects or relationships of the variables and their respective measurement errors, without having to segmenting it (Manzano Patiño, 2018).

Despite a cultural context that sometimes labels cheating as an act of ingenuity and intelligence, honesty and integrity remain socially desirable. When an individual is asked whether they commit dishonest acts they assume that they are expected to say no, which puts pressure on their own sincerity (Bernardi & Adamaitis, 2008; Bernardi & LaCross, 2011). In order to promote honest responding, it is necessary to provide as many guarantees as possible regarding the anonymity of the responses, since not doing so or not adequately communicating the measures foreseen to achieve it may reduce the truthfulness of the responses, since revealing possible dishonesty could trigger undesired consequences for the reporter. The social desirability factor must be taken into account, i.e., the tendency of participants to try to give a favourable impression through their responses.

The survey was completed online, which may arouse suspicions that it is possible to technologically track the identity of the participant, questioning the anonymity of their answers and therefore affecting the sincerity of their answers.

It is important to emphasize, that the people who helped researchers to apply the instrument reminded the participants of what was also explained to them in writing prior to answering the instrument about the strictly anonymous nature of their responses and the possibility of leaving the tool at any time. Nevertheless, we are aware that there some other "truth-telling" methods that may be considered beyond standard self-reports to improve our estimates about academic misconduct that discourage under reporting (Curtis et al., 2022).

Despite the aforementioned limitations, what lessons can we learn from this work when designing proposals to promote a culture of integrity in the practice of the profession and in the workplace?

Conclusions

In light of the findings obtained in this research, it is appropriate to make the following recommendations to educational institutions:

- Deploy, as an urgent task, starting in basic education, formal programs to promote ethical behaviour of students through the development of a culture of academic integrity. Offering courses in ethics, civics or citizenship is useful, but it is not enough; it is necessary to provide a learning context in which ethical reasoning is developed in such a way that it allows, in daily practice, to recognize ethical dilemmas and face them with the best resources.
- Remind students, in an attractive and permanent way, of the benefits of ethical behaviour and design adequate recognition schemes to incentivise it. Faculty and students must be committed and involved in the design and implementation of solutions aimed at generating the culture mentioned in the previous point.
- Address and respond to all acts of academic dishonesty by students. It is necessary to ensure an environment free of impunity for cheating and unethical behaviour. Allowing dishonest acts to go unnoticed or be considered not serious can lead to a progressive deterioration of ethical standards and the development of an awareness of collective tolerance to dishonesty. This implies, of course, periodic diagnoses to explore the problem in depth.
- Consider international standards in the design and deployment of their academic integrity programs and link with other universities and international organizations such as ICAI (International Center for Academic Integrity) or ENAI (European Network for Academic Integrity) to share best practices. The implementation of these programs implies, of course, the commitment of resources in order to achieve the expected objectives.
- Design and deploy targeted interventions in its academic integrity program in response to differences detected in outcome analyses by demographic variables such as gender and student major.

Likewise, it also offers valuable suggestions for companies, of which we mention the following:

- Require higher education institutions to implement and deploy increasingly solid academic integrity programs, as well as a comprehensive training process that develops professional competencies from an ethical perspective.
- Consider the behaviour of academic integrity of candidates for the different positions available as a relevant criterion in the selection and recruitment processes. This measure implies the design of an indicator or the selection of an

instrument that allows for the adequate assessment of this ethical behaviour, that as far as we know, it has not been developed yet for that purpose. There are some about integrity but not specifically about academic integrity.
- Design and implement systems that encourage ethical behaviour and sanction unethical behaviour. It is important to emphasize the powerful and effective role of ethical leadership.
- Consider international standards for designing a quality business ethics and compliance program.
- Design and deploy targeted interventions in your ethics and compliance program that address demographic differences such as gender, age, work experience, and seniority in position and role.

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Chapter 12
Tactics of Scholarly Abuses

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Abstract Scholarly abuse takes many forms, including fraud, plagiarism, exploitation, exaggeration of credentials, and blocking others' submissions and appointments. To better understand how such abuses continue, it is useful to look at tactics used by perpetrators to hide or legitimise their behaviours. For actions that are widely stigmatised, such as plagiarism, the most common tactic is cover-up. To challenge these forms of abuse, the tactic of exposure is often effective, and most effective when done by those with higher status. A different dynamic occurs with problematic behaviours that have become institutionalised, such as gift authorship and exaggerated claims in grant applications. Several additional techniques are commonly involved. One is positive framing, so that the actions are seen as normal and complaining about them deviant. Another is to set up official channels that give only an appearance of ensuring proper behaviour. A tactics analysis offers insight into how abuses are carried out and defended, points to ways to challenge them, and shows how certain questionable behaviours can become so normalised that they are seldom even called abuses.

Keywords Fraud · Plagiarism · Exploitation · Abuse · Outrage · Censorship · Intimidation · Discrediting · Conflict · Bias

Introduction

Discussions of academic integrity most often focus on behaviour by students, especially plagiarism in assignments and cheating on exams. Student honesty is an important topic, but problematical behaviours by scholars are neglected by comparison.

Even for scholars, most attention is on plagiarism and fraud. Again, these are important but do not exhaust the number of questionable behaviours, including

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cronyism, padding of curriculum vitae, and exploitation of students. Some of these dubious behaviours receive little attention, and some are treated as normal and not stigmatised.

To better understand abuses by scholars, including why some are highlighted and others tolerated, it is useful to examine tactics. Specifically, tactics here refer to actions by scholars to either reduce or increase concern about problematic behaviours. In the next section, a framework for analysing tactics will be outlined using examples involving censorship. Following this, tactics commonly used in relation to two widely stigmatised abuses, plagiarism and fraud, will be described. Then comes a section on what can be called institutionalised abuses, which typically involve different sorts of tactics.

One implication of this analysis is that in dealing with academic integrity issues, more attention needs to be given to abuses by scholars. A second implication is that some commonly ignored or tolerated behaviours need to be questioned. In social scientific terms, there needs to be more attention to the social construction of scholarly deviance.

Tactics of Outrage Management

The purpose of censorship is to restrict awareness of something: a text, a picture, a film or any form of communication. It may seem obvious that prohibiting or penalising publication will achieve this purpose, but sometimes it does the opposite. A famous case involved the celebrity Barbra Streisand. The California Coastal Records Project posted hundreds of photos of the California coastline online. One of them showed Streisand's mansion. She didn't want it publicly available and in 2003 sued the photographer and publisher for $50 million. This was a bad move. When news of the suit became public, people flocked to the website to see the photo. Before the attempted censorship, it had been viewed just six times; afterwards, it was viewed hundreds of thousands of times (Adelman, 2007).

This case gave rise to a name: the Streisand effect, when online censorship leads to greater attention to the thing censored. There are many other instances of this effect (Wikipedia, n.d.) but this is not the end of the story because censorship, online or offline, is often quite effective. To understand the process, it is revealing to look at the tactics used by the censors and their opponents (Jansen & Martin, 2015).

In many circles, censorship has a bad reputation. Therefore, powerful censors use a variety of tactics to reduce the possibility of public outrage from their actions. One of the most effective tactics is cover-up: the censorship is hidden, so few people know about it. An example is Google's manipulation of searches, which is never announced (e.g., Meyers, 2019). By keeping quiet about its actions, Google reduces the likelihood of outrage.

Another example is government surveillance of communications, which is normally hidden. In 2013, Edward Snowden released documents from the National Security Administration (NSA) revealing extensive government surveillance

(Greenwald, 2014; Harding, 2014; Snowden, 2019). In this case, cover-up failed, so other methods were used to reduce outrage (Martin, 2015).

A key technique is devaluation of challengers, in this case Snowden, who was called a traitor; his expertise was devalued by calling him "only a contractor." When someone is labelled negatively, and discredited, they become less credible as a messenger and their message also loses credibility. (For perspectives on devaluation, see Brennan, 1995; Keen 1986; and Wolfensberger, 1998).

Another important technique is reinterpretation. Claims were made that NSA data collection was legal, and that it was in the public interest or the national interest. This reframed the surveillance as legal activity, obscuring the question of why it had been kept secret, and reframed it as protection rather than surveillance. The attack on Snowden was also a form of reframing, diverting attention from his revelations, namely the secret surveillance, instead fostering a debate over whether Snowden's actions were justified.

Another claim was that Snowden should have reported his concerns to his superiors or used internal appeal processes. Snowden says he did raise concerns but, more importantly, he decided to release NSA documents because he had seen what happened to other intelligence-community whistleblowers (Snowden, 2019, pp. 294–295). The history of national-security whistleblowers shows that the expectation to report matters through official channels serves to reduce public outrage (Edmonds, 2012).

Finally, a key technique to reduce outrage over censorship is intimidation: threats and adverse actions taken against anyone who challenges censorship. Intimidation serves to limit the number of revelations, especially via the example of what happened to prominent whistleblowers such as Snowden and Chelsea Manning.

In summary, outrage over censorship can be reduced using a variety of techniques:

- cover-up, namely censorship of the censorship
- devaluation of challengers
- reinterpretation, including reframing of the meaning of events
- use of official channels, so people believe problems are being dealt with
- intimidation of people involved.

These same five types of techniques are used by powerful perpetrators in all sorts of areas, for example sexual harassment, police beatings, massacres and bombings (Martin, 2007; McDonald et al., 2010; Riddick, 2012). It is plausible, therefore, that the same techniques might be observed in struggles over academic abuses.

Perpetrators can be resisted, including in relation to outrage management. The five types of techniques to reduce outrage over censorship point to a set of corresponding counter-techniques:

- exposure of the censorship
- validation of challengers
- interpretation of actions as unfair

- avoidance or discrediting of official channels; instead, mobilisation of support
- resistance to intimidation.

Each of these can be observed in the Streisand affair. Streisand's legal threat was widely publicised; the photographer and publisher were praised for their work; the legal action was condemned as constituting censorship; ever more people were alerted to the events and encouraged to see Streisand's suit as wrong; the photographer and publisher did not acquiesce. As a result of the effective use of these counter-techniques, Streisand's attempt at censorship backfired spectacularly (Jansen & Martin, 2015).

The same counter-techniques can be observed in the struggle over Snowden's leaking of NSA documents: the leak was itself a dramatic exposure of surveillance; Snowden's supporters lauded him as a hero serving the public interest; the pursuit of Snowden was portrayed as a reprisal for whistleblowing; Snowden did not trust his fate to courts but instead sought asylum, while journalists reported on the NSA documents; Snowden and journalists in receipt of NSA documents resisted threats by the US government.

In the case of Snowden, there are two distinct injustices, closely linked. First is the massive NSA covert surveillance of electronic communications; second is the attempt to arrest and stigmatise Snowden. The tactics of outrage management relate to one or both injustices.

To refer to an action as unjust or unfair is to make a judgement about it, so in all cases it is more appropriate to refer to *perceived* injustice or unfairness. A view about whether something is unjust is often at the core of these sorts of struggles. This is certainly relevant when it comes to talking about "scholarly abuses," because to call something an abuse is to make a judgement about it. When discussing scholarly abuses, then, I am referring to actions that might be thought inappropriate or harmful. Perpetrators of such actions have an interest in painting them as normal and acceptable whereas critics try to make them seem wrong.

In the next section, I apply this framework of tactics for outrage management to highly stigmatised academic actions: fraud and plagiarism. To say they are highly stigmatised is to recognise that there is little question that many people see them as wrong, so we may expect to see many of the tactics and counter-tactics of outrage management.

Plagiarism and Fraud

Plagiarism is using the words or ideas of another without appropriate acknowledgement. It is a cardinal sin in academia. Most of the focus is on student plagiarism. Periodically there are scandals due to publicity about episodes of or claims about student plagiarism, or about purchasing of essays, which is a type of plagiarism.

A typical student plagiarist has little power compared to their teacher. To avoid penalty, the student's most common tactic is cover-up, namely hiding or disguising

the copying, for example by using an obscure source (one not on databases), changing some words or finding someone to do their work. If discovered, the plagiarising student can use the tactic of reinterpretation, saying they made a mistake in referencing, did not copy intentionally or did not know it was wrong. (The complication here is that much student plagiarism is not an attempt to cheat but rather due to a lack of understanding of acknowledgement practice (Sutherland-Smith, 2008). A student plagiariser, due to their weak position in relation to teachers, is seldom able to use tactics of devaluation, official channels or intimidation.

Confronted with evidence of a student's plagiarism, a teacher's tactics are straightforward: exposure and interpretation of the behaviour as wrong. This pattern is familiar to most teachers and is only outlined here to show how the tactics model can be applied.

When a plagiarist is in a position of power and status, a somewhat different pattern emerges. In some such cases, a prominent figure is discovered to have plagiarised earlier in their career. Martin Luther King, Jr., the leader of the US civil rights movement, was one of the most prominent political figures in the twentieth century. After he rose to fame, his PhD dissertation came under scrutiny: plagiarism was discovered. Although some tried to publicise this discovery, others sought to keep it quiet or explain it away. King had such high status that his supporters were able to reinterpret the plagiarism as not important because King's accomplishments were political rather than scholarly (Thelen, 1991).

David Robinson was a British academic who became a high-profile administrator at Australian universities, first as Vice-Chancellor of the University of South Australia and then in 1997 as Vice-Chancellor of Monash University in Melbourne, at the time Australia's largest university. In 2002, a crisis unfolded, as evidence was revealed that Robinson, in publications in the 1970s and 1980s early in his career, had plagiarised various sources. Consider each of the categories of tactics and counter-tactics (Martin, 2008).

- Cover-up and exposure. One instance of Robinson's plagiarism had been discovered years earlier. In applying for the VC jobs in Australia, this was known to only a few senior university figures, not more widely: this was the tactic of cover-up. Robinson's critics used the tactic of exposure, making a succession of disclosures.
- Devaluation and validation. Robinson's critics presented themselves as defenders of academic standards.
- Interpretation tactics. Robinson blamed his copying on being sloppy and hasty in a rush to publish, whereas his opponents painted the plagiarism as a grievous scholarly sin. Robinson and his supporters focused on his administrative achievements, whereas his critics focused on his scholarly transgressions.
- Official channels. Robinson's supporters included the members of Monash University's governing body, who passed a resolution in his defence. Robinson's critics did not rely on formal complaints but instead found publicity to be their most potent tool.

- Intimidation and resistance. Because Robinson was the VC and had the support of university officials, some of his critics felt afraid to go public: they were not overtly threatened but worried that speaking out might lead to reprisals. Some critics, though, were willing to take the risk: they resisted.

The Robinson case contains more facets than can be addressed here, and this account relies mainly on published information (Martin, 2008). In nearly every such dispute, there are many complications. Here I have extracted a few points to illustrate tactics and counter-tactics. In this case, cover-up was for years the most important method for reducing outrage over plagiarism. When cover-up no longer was effective, other methods were brought into play. As it turned out, Robinson's actions as VC had created many enemies among academics, and they were able to use information about his plagiarism to discredit him. He resigned.

The cases noted here illustrate the tactics and counter-tactics that can be used in struggles over plagiarism. However, tactics alone are not enough to determine outcomes, which are also influenced by resources available to players in the struggle, the context and various contingent factors. It was not possible to predict in advance the outcome of allegations of plagiarism made against Martin Luther King, Jr. or David Robinson. Nevertheless, the analysis of tactics enables an understanding of struggles and gives some guidance on how to engage in the struggle more effectively.

Institutionalised Abuses

Plagiarism and fraud are widely stigmatised but other questionable academic behaviours receive little attention. They have become sufficiently normalised that few people raise concerns about them. They are part of the way the academic system operates; in other words, they are institutionalised. After a brief description of some of these abuses, I will look at the role of tactics in maintaining and challenging them. The questionable practices are listed here in alphabetical order, though this is doubly arbitrary in that there are alternative names for several of the items.

Assessment Bias

Teachers make assessments of their students in order to assign grades. This process is vulnerable to bias based on a student's gender, age, religion, ethnicity, appearance, personality, social class and attitude. A teacher can also be influenced by their beliefs about a student's intelligence. Teacher assessments, in some cases, have major impacts on student careers, for example affecting their admission to university, admission to graduate programmes or their graduation. Some teachers make efforts to ensure their assessments are as unbiased as possible, for example by having work marked by colleagues who do not know the names of the students, but in many cases

teacher assessments are affected, often unconsciously, by non-scholarly criteria (see, generally, Banaji and Greenwald, 2013; Eberhardt, 2019). Student ratings of teachers can also be affected by factors unrelated to teaching quality (Greenwald and Gillmore, 1997).

Bullying/Mobbing

Individuals can be the target of nasty behaviour, such as yelling, denigration and ostracism, coming from a single perpetrator (bullying) or a group (mobbing). Sometimes bullying and mobbing are extraneous to research but sometimes they are directly connected, for example to hinder or drive away a competitor for funds, jobs or status (Westhues, 2004).

Citation Bias

In writing articles, scholars are expected to cite sources that are most important and relevant to the topic, and ones that influenced the author, but studies show substantial deviations from the ideal (MacRoberts & MacRoberts, 1989). Various forms of bias in citation practices occur, including excessive self-citation, omitting citations to authors who are enemies or otherwise out of favour, and giving unwarranted citations to allies, sources recommended by editors or reviewers, and articles published in the same journal. Another common problem is what might be called plagiarism of citations: copying citations from other publications without reading or checking the articles cited.

Conflict

In many universities, there are bitter conflicts involving academics and research students. There is nothing inherently wrong with conflict, but abuses can occur in the manner by which the conflict is waged. Unscrupulous methods include lying and harassment; a particularly nasty method is using students as proxy targets for attacks on colleagues (Peña Saint Martin et al., 2014).

Conflicts of Interest (COIs)

When a researcher receives funding from a source that has an interest in the issue investigated, this often has an impact on the findings. In short, COIs are often a source of research bias (Krimsky, 2019). Related to this, funders may demand that researchers sign contracts controlling what they can publish (Kypri, 2015).

CV Padding

A scholar's calling card is the curriculum vita (or vitae), a list of degrees, job history, publications and other facets of experience and achievement. It is commonplace for scholars to hide or disguise shortcomings and exaggerate achievements (Phillips et al., 2019). This can be done by listing job experience that suggests more than what occurred, for example teaching a class when one contributed only a few guest lectures, or claiming a major contribution to a committee achievement. Most importantly, CVs almost never reveal failures, for example papers rejected by journals. Massaging CVs to give the most favourable impression is standard, analogous to selecting and improving photos on Instagram.

Favouritism

When someone known or liked is an applicant for a job, promotion or research grant, it is common to give them extra support. This can be called favouritism, cronyism, discrimination or, if relatives are involved, nepotism. An example is a dean, sitting on a selection committee, giving preference to a collaborator or friend. In academic life, the ideal is to judge people's performances on merit, but in practice it is difficult to avoid being influenced by non-scholarly factors including friendship (or enmity), familiarity, ethnicity, gender, age and political affiliation. Sexism and racism are two of the most long-standing forms of favouritism; also important are ageism and political affinity. Those who are good looking and who project confidence have advantages. Disciplinary affinity can be very important, with candidates lacking the most favoured degrees and backgrounds discriminated against.

Gift Authorship

In many contexts, supervisors add their names to publications even though they did little or none of the research. "Supervisor" here can refer to the supervisor of a research student or the senior member of a research team.

Research Grant Hyperbole

It is common for research-grant proposals to make exaggerated claims about originality, achievements and outcomes. In biomedical research, this is manifested in claims about contributing to a cure for cancer. A similar sort of exaggeration occurs

in nearly every field. It would be a rare applicant who acknowledged modest previous achievements while proposing an unoriginal project with little hope of advancing knowledge or contributing to social welfare.

Self-Plagiarism

Many researchers reproduce portions of their own previously published work, without attribution.

Mini-Summary

These are some of the areas where social scientists, indeed any scholars, can be involved in practices that involve abuse, bias or misrepresentation. The aim here is not to document the prevalence or impact of these problems but rather to examine tactics used to support or challenge them.

The important thing about all of these practices is that they are both commonplace and either tolerated or endorsed as standard practice. None is stigmatised like plagiarism or research fraud. To examine the role of tactics, it is most illuminating to consider cases in which there have been challenges to these practices, looking at the tactics used by challengers and those deployed by defenders of business as usual.

A preliminary general observation can be made. For many of these behaviours, most commonly nothing is said about them. This might be called cover-up, except that if no one is complaining, there is no need for special measures to hide actions. This might also be called reinterpretation: the behaviours are framed as normal and acceptable. Only when critics raise concerns — the tactics of exposure and interpretation as unfair — do the methods of cover-up and reinterpretation need to be deployed.

A closer look at several of these practices reveals some of the characteristic tactics used in defending them, as well as methods for challenging them.

Tactics of Conflicts of Interest

COIs are a serious blight on research in every field. The term COI itself is a potent derogatory label: few people like to be said to be in a COI. Critics of insider advantage, for example when committees award grants to allies of committee members, have become vocal in many contexts. A traditional response to allegations of COI bias is to claim that an expert's judgement is driven by "the science" or "the facts" and not by other considerations. This response works better in the natural

sciences where the belief in objectivity remains stronger. In the social sciences, the credibility of claims to objectivity has been under attack for decades (Porter, 1995).

A prime response to allegations about the influence of COIs is to require declarations of COIs. The idea is that when COIs are open, they cannot exert covert influence: people can take them into account. It has now become commonplace for authors of scholarly papers to be expected to list COIs.

As a tactic, listing COIs is an official channel. It gives the appearance of dealing with a problem but in practice often is inadequate. There are two sorts of problems. One is that authors are on their honour in listing COIs: there is no readily available method to check the accuracy of statements, so in many cases it is easy to omit significant COIs. Second, and more importantly, listing a COI does not make it go away: the COI can still cause bias and, perversely, declaring a COI can lead to greater bias due to "moral licensing," in which a disclosure reduces guilt about making a biased decision (Cain et al., 2005). The solution to COIs is not to have them. For example, it should be considered unethical for researchers to accept funds from groups with vested interests in the results.

Tactics of Gift Authorship

The term "gift authorship" refers to the practice by which authorship or co-authorship is assigned to someone who did little or none of the work (LaFollette, 1992, pp. 91–107). This is sometimes called "honorary authorship." A related term is "ghostwriting," in which a writer, called a "ghostwriter" or "ghost," does most or all of the writing but is inadequately acknowledged, or not at all (Shaw, 1991). In the case of students, this is called contract cheating (Newton, 2018).

In scholarly contexts, gift authorship is commonplace in some places, especially in the sciences and especially in large teams, but can be found in just about any field. Most commonly, supervisors of research students put their names on papers when the students did most or all of the work. Although widespread, there is relatively little documentation of the problem (Martin, 2013; Witton, 1973). Apparently no one has made a systematic study of the practice.

Gift authorship can be considered to be a form of plagiarism: it involves claiming authorship for work done by others. Yet the label "plagiarism" is almost never applied to this practice. This gives a clue to the tactics involved in this form of scholarly exploitation.

An important tactic is cover-up: although many researchers are victims, few ever complain publicly. Another tactic is reinterpretation: senior researchers say or assume they deserve to be co-authors of their students' research papers because of their intellectual input, mentoring, provision of funding and resources, or other contributions. However, seldom are these researchers called to justify their authorship, so reinterpretation, as a tactic, may not need to be deployed often.

Another important tactic in gift authorship is intimidation: research students are afraid to clash with their supervisors over authorship because they fear reprisals, for

example loss of financial support, bad references or even hindering of their studies. As well, students may not have sufficient experience of research to understand when a practice is exploitative.

To challenge gift authorship is not easy. A first step, and technique, is exposing it. This is seldom straightforward. A PhD student can say that their supervisor contributed nothing to their jointly-authored paper, but if the supervisor claims to be a valid co-author, then it is one person's word against another, and the person with more authority and experience will usually have greater credibility, or at least managers will have more to lose by crossing a productive academic than an aspiring student. Exposure has a greater chance of being influential if it is a collective complaint, with many signatories. However, if the complaint is internal to the institution (a use of official channels), even if it is successful, it is unlikely to lead to wider awareness of the problem. Another avenue for exposure is commentary by senior scholars who are aware of the problem, know about many cases, and — most importantly — are willing to speak out about it. A few scholars have indeed raised concerns about gift authorship (Martin, 2013; Tarnow, n.d.; Witton, 1973), but so far without much wider impact. Because there has been little public exposure of the problem, those who defend or tolerate the usual exploitative practice have seldom needed to deploy other techniques to reduce outrage.

There is a vast amount of educational research, on all sorts of topics, and a plethora of journals. However, some topics are virtually taboo, and scholarly gift authorship seems one of them. Possibly an independent journalist would find it easier to undertake the research, for two reasons: there would be no need to receive approval from a research ethics committee, and not having an academic career would reduce the risk of reprisals.

Tactics of CV Padding

Padding of CVs is so commonplace and accepted that raising awareness of the problem is extremely difficult. One can find advice, for example, on how to explain a gap in your resumé or how to choose the most appropriate people to be listed for giving references. Advice is not needed for some choices, such as never mentioning failures to be appointed or promoted, not listing students who were supervised but did not graduate, not mentioning classes for which teacher evaluations were disastrous, and not listing having been subject to disciplinary actions. The exclusion of negatives, when undertaken by nearly every academic, creates a false picture of performance, analogous to the problem of false appearances on social media, on which a realistic photo of a typical face will appear unattractive by comparison to curated images.

Because CV padding is standard practice, minor embellishments are seldom remarked except perhaps informally by close colleagues who know the truth. However, challenges to certain items on CVs can occur, especially when they are believed to be transgressions. An important example is fraudulent credentials. These

can take different forms. Some individuals claim to have received degrees when actually they didn't: there are numerous websites selling fake degree documents. This may remain unnoticed when someone is performing at the expected level and not otherwise prominent but can become an issue for someone with a public profile. All it takes is for a journalist or disgruntled colleague to contact the institution from which the degree was claimed, asking whether there is a record of a person of that name graduating in the year specified.

A slightly different situation is when someone lists a degree from an institution that lacks credibility, such as an unaccredited university in which payment of a fee and a brief essay is enough to become the possessor of a seemingly respectable degree. In such cases the CV may be accurate but there is an implied misrepresentation in that people expect listed degrees to be from legitimate institutions, namely that they represent having achieved a certain level of study or research. Exposing that someone's credentials are from disreputable institutions is a common discrediting tactic.

Different again are degrees conferred from reputable institutions but obtained by illegitimate means. Undergraduate cheating is the most well-known scenario: a graduate can be exposed for having paid someone to take examinations for them. Then there is high-level plagiarism, which involves the usual stigma of plagiarism. Prominent European politicians have been exposed for plagiarising in their PhD theses or having them ghostwritten (Weber-Wulff, 2013). This is not padding one's CV in the usual sense, but rather listing an achievement obtained fraudulently.

Tactics of Self-Plagiarism

"Self-plagiarism" refers to reusing one's own previous ideas or text without appropriate attribution. Related terms, and practices, include text recycling, duplicate publication, textual reuses, redundant publication, and self-copying (Bretag & Mahmud, 2009; Eaton & Crossman, 2018). For decades, what is called self-plagiarism was so little noticed that it did not even have a name; without a name, it was difficult to raise concerns about it. A few researchers have documented the extent of this sort of copying. For example, Bretag and Carapiet (2007) used the text-matching software Turnitin, supplemented by close scrutiny of publications, to investigate the extent of unacknowledged copying of authors' own texts. The bulk of the texts of some multi-authored papers in fields such as psychology was copied, nearly word-for-word, from various previous papers by some of the same authors. For example, the methodology section might be copied from one previous paper and the literature review from another. Bretag and Carapiet (2007) excluded instances when this reuse of text was acknowledged.

Challengers to the practice of unacknowledged copying have used two main techniques. The first is exposure: they speak out about the problem, providing documentation. The second is devaluation: by applying the label "self-plagiarism," they draw on the connotations of plagiarism, which is highly stigmatised. Andreescu

(2013), who gives reasons why copying one's own texts can be beneficial, deplores the label "self-plagiarism" as unfairly demeaning.

Despite the efforts of Bretag and Mahmud, and others, there has not been very much attention to self-plagiarism. Nevertheless, their efforts have done as much as anything to bring attention to this problematical behaviour.

Common Tactics

Table 12.1 lists the institutionalised academic abuses addressed here — the sorts of abuses that are often perpetrated without penalty, being accepted as normal or being tolerated — and the typical tactics used to challenge them. Note that these are summary assessments that could be contested.

Conclusion

Social science, and scholarship more generally, is subject to a wide range of abuses that affect research, researchers, teaching and teachers. In the research domain, a few behaviours are highly stigmatised, notably plagiarism and research fraud. In cases involving violations of accepted behaviour, it is possible to observe a range of tactics, or methods, deployed by perpetrators and by challengers, and allies of each party. For perpetrators, the most common and usually the most effective method is covering up the action, for example hiding and remaining silent about

Table 12.1 Common challenger and defence tactics for selected academic abuses

Academic abuse	Common challenger tactics	Common defence tactics
Assessment bias	Complaints from students	*Seldom needed*
Bullying/mobbing	Exposure, complaints	Anti-bullying policies (official channels)
Citation bias	Articles about the problem	*Seldom needed*
Conflict	Charges, counter-charges	Policies for complaints, mediation (official channels)
Conflicts of interest (COIs)	Exposure, complaints	Requirements to declare COIs (official channels)
CV padding	Exposure of false claims	*Seldom needed*
Favouritism	Complaints, exposure	Policies on COIs (official channels)
Gift authorship	Articles about the problem	Policies on author contribution statements (official channels)
Research grant hyperbole	Scepticism	*Seldom needed*
Self-plagiarism	Exposure, documentation, labelling	*Seldom needed*

plagiarism. However, after a transgression is exposed, a wider range of tactics can be deployed, including devaluation, reinterpretation, official channels, and intimidation, and the counter-tactics of validation, interpretation, mobilisation of support, and resistance.

A different sort of pattern is observed for questionable behaviours that are widespread and either accepted or tolerated, including gift authorship, CV padding, conflicts of interest, and bullying. Given that these behaviours are so often allowed to continue without sanction, to call them abuses is a value judgement. Because these behaviours are so entrenched and so readily defended from criticism, they can be called institutionalised. For these behaviours, a different set of tactics is more commonly observed, most notably the introduction of official channels, such as bullying policies and requirements to declare COIs, that give the appearance of addressing the problems but often achieve little in practice (Martin, 2020).

For institutionalised abuses, it is useful to examine tactics in order to learn what is and is not effective. Authorities most commonly introduce official channels that provide symbols of due diligence, often without much evidence of systemic change. For challengers, the tactics of exposure and labelling can have an impact, as in the case of studies of self-plagiarism that reveal deceptive patterns of copying without attribution and apply a discrediting label.

A wider observation is that the widespread condemnation of plagiarism and research fraud can serve to hide the continuation of behaviours, such as COIs and favouritism, that are more common and sometimes more damaging. Rather than spending so much effort decrying already stigmatised behaviours, it may be better to devote more effort to exposing and challenging entrenched problems, and promoting ways to encourage good practice.

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Chapter 13
Academic Integrity Through the Lens of Informality

Elena Denisova-Schmidt

Abstract This chapter examines academic integrity through the theoretical framework of informality—an umbrella concept referring to a socially and culturally complex set of unwritten rules, open secrets, and hidden practices that are particularly challenging for outsiders to access or comprehend (Ledeneva, A. (Ed.). *The global encyclopaedia of informality*. Vols. I and II. UCL Press, 2018a). In addition to discussing the recent outcomes of informality research, including on academic corruption, the chapter highlights the potential significance of the concept for academic integrity and outlines further developments in the field.

Keywords Academic corruption · Academic integrity · Informality · Students

Introduction

In my research, I consider the lack of academic integrity within the realm of academic corruption. While students who cheat, plagiarize, or are involved in various forms of academic dishonestly[1] are seen as committing fraud, they are not usually seen as corrupt, even though fraud is a noted form of corruption. Faculty members, university administrators, and other decision makers, who consciously or unconsciously ignore cheating, plagiarism, and academic dishonesty, misuse entrusted power for private gain, one of the common definitions of corruption widely used among scholars and practitioners. The reasons for ignoring this conduct may differ: a lack of time or other resources (such as plagiarism detection software); a

[1] See the work of Donald McCabe—McCabe, 1992, 1997; McCabe et al., 2012; McCabe & Trevino, 1997; McCabe et al., 2001, 2002—the "founding father" of academic integrity (Star-Ledger, 2016) and contributions by Bretag, 2020, and Rettinger & Bertram Gallant, 2022.

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difference in understanding of the term plagiarism (in some academic cultures, for example, students are expected to reproduce the teaching materials; verbatim coping is likely to be pre-programmed); or precarious academic employment and/or less value placed on teaching in an academic career path. Nevertheless, cheating remains cheating, even if it is natural and inevitable (Stephens, 2019). Cheating in academia undermines "the trust placed in the educational process [and] devalues academic qualifications" (Glendinning et al., 2019, p. 5) among the younger generations. Moreover, as students grow into adults, they will likely carry what they learn about cheating in their formative years—its frequency, the cynicism to ignore it, and its possible advantages—into their professional and personal lives (Cohn et al., 2014; Denisova-Schmidt, 2023; Grimes, 2004; Josephson Institute of Ethics, 2009; King et al., 2013).

In my chapter, I examine academic integrity through the theoretical framework of corruption and informality. I highlight the complexity of both issues and conclude with further developments and outlook.

Corruption

The rapidly expanding field of research on corruption began in the early 1990s, which is often explained by the end of the Cold War and the rise of democracy and the free press in many countries, as well as the influential role of international organizations such as the World Bank, the International Monetary Fund, and the Organization for Economic Cooperation and Development. Established in 1993, the international NGO Transparency International (TI), headquartered in Berlin and with chapters in more than one hundred countries, published its first *Corruption Perceptions Index* (CPI) in 1995 and continues to lead the global fight against corruption (Tanzi, 1998). The CPI documents different forms of corruption and assesses the extent of corruption among politicians, civil servants, experts, and businesspeople. Their annually published rankings, which currently includes 180 countries and territories, allow citizens in some countries to demand more anti-corruption measures and add legitimacy and support for politicians engaged in anti-corruption reforms.

In 1909, Robert C. Brooks offered one of the first academic definitions of corruption: "The intentional mis performance or neglect of a recognized duty, or the unwarranted exercise of power, with the motive of gaining some advantage more or less personal" (as cited in Brooks, 1970, pp. 56–64). Later, in 2004, Stephen Heyneman offered one of the earliest definitions for corruption in higher education: "The abuse of authority for personal as well as material gain" (Heyneman, 2004, p. 637). Brooks was focused on political corruption, and he argued that wrongdoing in this sphere was driven by business interests (Kurer, 2015). He stressed that corruption could pose a danger to personal lives: at home, in church, in educational situations, or in personal relationships. In comparison, Heyneman was writing about education. She argued that professional misconduct undermined trust in an important

societal institution and detrimentally influenced younger generations. Together, these definitions reveal corruption's potential to disrupt and affect all aspects of life.

TI's definition of corruption is both more succinct and quotable than Brooks's or Heyneman's: "the abuse of entrusted power for private gain" (Chapman & Lindner, 2016). Though this broad definition is generally accepted, and often applied by scholars and academics working on corruption, the question of what corruption looks like in practice is more ambiguous. In drafting a book on corrupt practices by the German conglomerate Siemens, TI-affiliated scholars had difficulty agreeing on their interpretation of corruption. While legal scholars tended to rely on court verdicts, humanities scholars followed Max Weber (1922) and distinguished between corruption in the public and private spheres. Additionally, economists viewed corruption according to different perception rankings (Graeff et al., 2009). These differences led to a project gathering views on corruption from multiple disciplines: economics, management, criminal law, civil law, history, public administration, political science, sociology, psychology, and criminology (Graeff & Grieger, 2012). This demonstrates the difficulty in theorizing the concept of corruption. For instance, something as seemingly straightforward as bribery involves "the offering, promising, giving, accepting, or soliciting of an advantage as an inducement for an action which is illegal, unethical, or a breach of trust. Inducements can take the form of gifts, loans, fees, rewards or other advantages such as taxes, services, donations, favors, etc." (Anti-Corruption Glossary, 2020). The concept of corruption includes many activities besides bribery: collusion, conflict of interest, embezzlement, fraud, lobbying, nepotism, patronage, and revolving-door relationships, as well as more than forty others (see Table 13.1). While some of these manifestations are illegal, they are all unified by a question of unethicality: they involve bending the rules for one's own gain.

There are unique challenges to studying corruption in academia. Scholars and practitioners in corruption studies do not necessarily consider plagiarism or cheating by students as corruption. In comparison, some scholars apply the term corruption too enthusiastically. For example, some scholars consider it corruption when universities add a high percentage to third-party grants to cover overheads or professors ask their students to write the first draft of their own recommendation letters (Denisova-Schmidt, 2020). While these are grey areas, academic dishonesty, cheating, professional misconduct, plagiarism, fake degrees and fake universities, preferential treatment for access and promotion, a lack of academic integrity, and other unethical behaviours are widespread issues in academia. As higher education continues to be commodified, the potential for corruption grows. One growing problem is the willingness of educational institutions to overlook their own rigorous requirements to increase profit.[2] These practices have the potential to lower the

[2]Many studies have been carried out on corruption in academe (Angulo, 2016; Bretag, 2020; Golunov, 2014; Hallak & Poisson, 2007; Heyneman, 2009; Lessig, 2018; Schwartz, 2017). In 2013, Gareth Sweeney, Krina Despota, and Samira Lindner edited TI's *Global Corruption Report: Education*. Over the course of nearly five hundred pages, scholars and practitioners showed that academic corruption exists all over the world and at all levels of education, from primary schools to universities (Sweeney et al., 2013).

Table 13.1 Selected examples of corruption in higher education

Terms/TI definitions (The Anti-Corruption Plain Language Guide. TI. 2009. http://www.transparency.org/whatwedo/publication/the_anti_corruption_plain_language_guide)	**Bribery** The offering, promising, giving, accepting, or soliciting of an advantage as an inducement for an action that is illegal, unethical, or a breach of trust. Inducements can take the form of gifts, loans, fees, rewards, or other advantages (taxes, services, donations, etc.).
Examples	A student bribes a professor to change a grade in their favor; a faculty member bribes a ghostwriter for their own publication; university administration demands bribes from service suppliers.
Terms/TI definitions	**Collusion** A secret agreement between parties, in the public and/or private sector, to conspire to commit actions aimed at deceiving or committing fraud with the objective of illicit financial gain. The parties involved often are referred to as "cartels."
Examples	Faculty members ignore or pretend to ignore students' academic misbehaviour; Faculty members are involved in "citation" cartels: Citing each other's works/journals without necessity; Administration chooses the winner in an open tender, based on a prior agreement.
Terms/TI definitions	**Conflict of interest** A situation where an individual, or the entity for which this person works, whether a government, business, media outlet, or civil society organisation, is confronted with choosing between the duties and demands of their position and their own private interests.
Examples	A high-ranking official responsible for accreditation is placed in charge of a university, for which they recently worked; A professor grades their nephew/niece or supervises a thesis written by their significant other; A university manager responsible for catering buys food from their relatives only.
Terms/TI definitions	**Favouritism** Patronage: a form of favouritism in which a person is selected, regardless of qualifications or entitlement, for a job or government benefit because of political affiliations or connections Nepotism: a form of favouritism based on acquaintances and familiar relationships whereby someone in an official position exploits their power and authority to provide a job or favour to a family member/friend, even though they may not be qualified or deserving.

(continued)

Table 13.1 (continued)

Examples	A student is admitted, or a faculty member is hired/promoted, based only on their personal connections and/or family relations; academic achievement and other relevant competencies are not considered.
Terms/TI definitions	**Fraud** To cheat: The act of intentionally deceiving someone in order to gain an unfair or illegal advantage (financial, political, or otherwise).
Examples	A student cheats on their written assignment, or a faculty member plagiarizes in their paper; A staff member falsifies an admission application; A significant amount of a research grant goes to purposes other than what is indicated in the research proposal; Universities expect a contribution from students receiving financial support.
Terms/TI definitions	**Lobbying** Any activity carried out to influence a government or institution's policies and decisions in favour of a specific cause or outcome.
Examples	Some industries support research projects expecting positive and/or promising outcomes for their products/services.
Terms/TI definitions	**Revolving doors** An individual who moves back and forth between public office and private companies, exploiting his/her period of government service for the benefit of the companies he/she used to regulate.
Examples	An influential government official opts for employment as a university rector.

(Denisova-Schmidt, 2018a, b)

quality of higher education and heighten public distrust in an important social institution.

In my research, I have followed the definition of corruption proposed by TI. However, in looking at corruption in the academy, I have argued that corruption in higher education includes a lack of academic integrity (see, e.g., Denisova-Schmidt, 2019). While my approach is close to Heyneman's (2004), I believe corruption to be ambivalent. What some consider a criminal act and corrupt practice, others consider a cultural norm or way of getting things done. Corruption can be understood only within its unique national context, in full consideration of the historical, political, and cultural conditions in which it exists (Denisova-Schmidt, 2023).

Informality

There are two main frameworks to study corruption: the principal-agent theory (see Klitgaard, 1988; Rose-Ackerman, 1978) or the theory of collective action (see Marquette & Peiffer, 2018). I belong to a group of researchers working to show the limitations of the traditional corruption paradigm (both frameworks) and call for a more innovative approach (Barsukova et al., 2018; Ledeneva, 2009, 2013; Ledeneva et al., 2017; Polese, 2021). One of these approaches is informality. By this term, I mean a certain set of unwritten rules, open secrets, and hidden practices that people use to achieve certain results (that is, to get things done). Sometimes informality is associated with the shadow economy or illegal activities. This is true, but only to a certain extent, because informality is a much broader concept. It is not only about the dark side of humanity, but also the light side and many gradations in between (Horak et al., 2020). Informality can be considered the "rules of the game" in one society or community, well known to all those within (insiders) but unknown to everyone else (outsiders). Informality is everything that happens behind the scenes. Within the framework of this approach, corruption is considered one of the manifestations of informality.

From about the 1970s until the 1990s, the prevailing view was that informality was a feature, or an anomaly, caused by underdevelopment and that it was only found in developing and transition economies. Within the framework of this approach, many scholars and practitioners expected that after the completion of the transition, with the beginning of a period of "normal" development, informality would go away by itself. Later, with the accumulation of experience, this point of view was recognized as narrow. It turned out that in most societies in which this transition took place, dragged on, or did not take place at all, informality did not go away, but simply took on other forms. In addition, it was also recognized that informality can be found not only in developing countries, but also in developed countries with market economies and liberal values. In general, it is now believed that informality in one form or another accompanies all processes of social and political life and is an integral part of all societies (see some fundamental works by Godfrey, 2011; Granovetter, 1982; Hart, 1973; North, 1990, 1991; Scott, 1981, 2001; and introduction by Ledeneva, 2018a). The first Global Encyclopedia of Informality, published in 2018, consisted of more than 200 entries from five continents (Ledeneva, 2018a).

While informality is stigmatized, it is not merely a euphemism for corruption. Rather, it is a much broader concept covering both ethical and ethically suspect, legal and illegal practices—including corruption. Here, I adapt a typology suggested by Alena Ledeneva (2018b):

1. Informal practices can be both *legal* and *ethical*, such as informal meetings between state leaders and other decision makers in advance or in lieu of official talks and negotiations—advance meetings that give more opportunities to discuss delicate topics in an open manner. This might include, for example, the regular weekly meetings that took place between Queen Elizabeth II and her fifteen Prime

Ministers; in higher education, it might be informal inquiries about newly announced faculty openings or consultancies about new fellowships and grants or shared meals between a hiring committee and candidates applying for faculty jobs in order to get to know each other better.

2. Informal practices can be *less legal* or even *illegal* but still socially acceptable under certain circumstances. Consider, for example, the informal payments or presents that secondary schools expect or require from their students and their families, whether it is a small donation for renovations or classroom decorations, significant support for purchasing new equipment, or paying for additional service like security. In many of my studies conducted in Eastern European secondary and post-secondary educational institutions, I saw that flowers, sweets, and books seem to be common and frequent presents to teachers and faculty members, even when they were above the allowed price limit (Denisova-Schmidt, 2016).
3. Informal practices can be *legal* but completely *unethical.* For example, private educational service providers usually operate within the national legal framework, and often do good and much-needed things, like helping young people prepare for exams or coaching them in academic writing. Sometimes, however, their services might include partly or completely doing homework or writing essays or term papers. After the United Kingdom introduced aggressive measures against these services in the late 2010s (see works on contract cheating by Eaton et al., 2022), the unexpected outcome was a financial crisis that erupted in Kenya among university students and graduates. Apparently, these services had provided a long-term and stable income for many well-educated people who have since lost their jobs in the academic writing industry (Nakweya, 2020).
4. Finally, informal practices can be both *illegal* and *unethical*, a sector that covers more classical abuses, including corruption. In one of my studies, conducted among students at Russian public universities, recent graduates claimed to have heard about bribes at universities more frequently than first-year students (significant at the 1% level), even after making the two student groups comparable in the covariates (gender, choice of university and subject, reason for obtaining a higher education, and previous exposure to informal practices and corruption during secondary schooling or through friends and relatives, as well as some other characteristics). The difference in awareness across groups amounted to 52% (!) (Denisova-Schmidt et al., 2016). In my next survey, students indicated frequent reasons for bribery at university: "for an exam," "for a better mark," or "due to the pressure from a faculty member" (Denisova-Schmidt et al., 2015).[3]

It should be noted, however, that the reality is much more complex: information provided in the context of informal job requirements should be available to all potential candidates; presents in academia have a long tradition and can represent

[3]The same study shows that students and not faculty members are often the initiators of such payments. More research is needed to confirm this; some faculty members may be able to convince the young people that the initiative really belonged to them.

a nice gesture but also could be misused by some actors to make teachers and faculty members dependent or obliged to act unethically; conversely, educators could demand presents from their students or refuse to perform their duties. Even one episode can encompass multiple angles of informality, ranging from the relatively innocuous to major criminal offences, as in the case of the Varsity Blues scandal in the United States.[4] In 2019 international outlets reported on several cases in which the children of famous US actors and corporate executives were discovered to have entered some of the country's top universities as student athletes[5] through a series of fraudulent schemes. While it is obviously illegal and unethical to falsify school exam results and sports achievements and pay bribes to broker sports scholarships, it is also obvious and natural that parents want to support children in their future careers. In addition to the dilemma of loving parents versus malicious scammers, the Varsity Blues case raises other questions that need to be addressed in the future, such as the inequality of access to higher education (young people with influential or less influential parents[6]) and the commodification and financing of higher education.

Conclusion

Even if cheating and other forms of misconduct are natural, the consequences of ignoring potential risks could be dangerous. For instance, engineers or physicians, who earned their qualifications through cheating, plagiarism, or other forms of wrongdoing, designing bridges or treating patients. Or what happens when a historian who plagiarized their dissertation creates a false narrative surrounding an ongoing war? Both corruption and informality are stigmatized. Reconsidering them, however, may bring new insights to the study of academic integrity (see. The recent *Handbook of Academic Integrity* edited by Eaton, 2023). In addition to further theory development, more research is needed to tackle the complexity of academic integrity and identify innovative approaches to mitigating corruption, even in endemically corrupt environments, as I did, for example, with Russia and Ukraine (Denisova-Schmidt et al., 2021; Denisova-Schmidt & Leontyeva, 2022, and Denisova-Schmidt, 2023). It is crucial to look more closely at academic integrity at secondary schools: students who cheat at universities have obviously experienced misconduct in the past; starting to analyze this issue before they enter the university

[4] For a detailed analysis, see the Netflix documentary, "Operation Varsity Blues: The College Admissions Scandal" (2021).

[5] Universities in the United States have a certain quota for student athletes, who must have achievements in sports in addition to high scores on their university entrance exams (SATs). During their studies, these students must also participate in training and competitions.

[6] In Germany, influential parents might intervene by securing placement for their children in the dual (higher) education system; in Russia, this might be through by enrollment based on firm or organization demand, which constitutes enrollment based on preferential treatment (Denisova-Schmidt & Leontyeva, 2022).

may help to combat or even prevent cheating within higher education institutions more efficiently. Another interesting area of research is the impact of mobility on integrity (Denisova-Schmidt, 2024). Academic literature suggests, for example, that the lack of integrity is deemed acceptable if individuals believe that it is widespread around them and if they do not consider these activities to be inappropriate, but rather the way that things are. If students and early-career researchers grow up in an environment where cheating, plagiarism, and fraud is business as usual, will they continue to practice these "skills" after moving to another institution? What about their international partners from academic cultures where professional misconduct is condemned: will they intervene and warn their colleagues, ignore the misconduct, or maybe start to reconsider their own stances on the current rules of the game for short-term benefits? What about the other unwritten rules, open secrets, and hidden practices that exist in academia? Are they stable, or might they change due to mobility? Can mobility be a successful remedy for mitigating academic dishonesty? Technological trends also need to be taken into consideration: ChatGPT is currently making headlines and raising concerns, but I suspect that many cheating techniques, especially those used by young people, still remain under the radar of scholars, educators, parents, and other decision-makers, particularly with the rapid spread of technology. Nevertheless, technology can also be used to identify some forms of academic dishonesty. Moreover, the entire research agenda on academic integrity would benefit enormously from closer cooperation among scholars and practitioners around the world, including studies conducted and published in languages other than English.[7]

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[7] I am especially proud of the upcoming Chinese translation of my edited collection, *Corruption in Higher Education: Global Challenges and Responses* (Brill, 2020; the Chinese publication is scheduled for fall 2023 by SJTU Press).

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Chapter 14
The 'Patrick Matthew Effect' in Science

Mike Sutton and Mark Griffiths

Abstract Robert Merton (1968) coined the term "The Matthew Effect in Science" to explain by biblical analogy how famous scientists are sometimes credited more than those who are lesser known but more deserving. Leading Darwin scholars have admitted Patrick Matthew (1831) originated the theory he uniquely called the "natural process of selection", which Charles Darwin (1859) re-named "process of natural selection". The current consensus among many Darwin scholars is that Matthew cannot have priority for his theory because he failed to influence anyone. According to Darwin and all Darwin scholars thereafter, neither he nor anyone else read Matthew's theory before 1859. However, new research has shown, contrary to what has been taught, that Matthew's book in fact was read and cited by at least 30 scholars before Alfred Wallace's and Darwin's replications of 1858 and 1859. These included (i) Robert Chambers (Wallace's admitted greatest influencer) who met and corresponded with Darwin pre-1858, (ii) John Loudon, an associate of Darwin's associates, and (iii) Prideaux John Selby, Chief Editor of Wallace's 1855 Sarawak paper on evolution of species. With a focus on the story of Matthew, Darwin, and Wallace, this chapter addresses the ethics of taking the step to reveal errors of fact in the publication record that have been used to misinform history.

Keywords Darwin · Plagiarism · Patrick Matthew · Matthew effect

Introduction

This chapter addresses the little-known fact that the Scottish apple farmer, pomologist, forester, and arborist, Patrick Matthew's (1831) book *On Naval Timber and Arboriculture* has been recognized by leading experts such as Darwin (1861),

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Wallace (1879), de Beer (1962), Mayr (1982), Dawkins (2010), Ford (2011, 2020) and Rampino (2011) as being the first publication to originate the full theory of evolution by natural selection. And the reason they did so is because Matthew (1860a, b) laid claim to his priority for it, over Darwin's. The ethics of the fact Matthew has been illicitly and unjustly denied priority over Charles Darwin for the theory Darwin and Wallace (1858) and Darwin (1859) replicated and which Darwin called *"my theory"* thereafter is examined. The full and most up-to-date story of Matthew, Darwin, and Wallace, and the origination of the theory, can be found in the first author's book *Science Fraud: Darwin's Plagiarism of Patrick Matthew's Theory* (Sutton, 2022). Important elements of the subject, specifically focusing on some of those naturalists Darwin knew – and who we now know read Matthew's (1831) book because they cited it in their writings – have been outlined elsewhere (see Sutton, 2015).

The Matthew Effect

In relation to ethics in science, Robert Merton (1968) observed how psychosocial processes manifest in what he and Zuckerman coined the 'Matthew Effect', which influences the scientific establishment, working as a social system, to reward and bestow prestige upon some scientists more than others who are equally or more deserving. The effect is named after a tract in the Christian Holy Bible's Gospel of Matthew: "*Therefore take the talent from him and give it to the one who has ten talents. For everyone who has will be given more, and he will have an abundance. But the one who does not have, even what he has will be taken away from him. And throw that worthless servant into the outer darkness, where there will be weeping and gnashing of teeth*."

Although the Matthew Effect is often attributed to Merton (1968) alone, it is with irony that his wife Harriet Zuckerman was only in 1973 fully credited by Merton for inspiring him to coin it (see Farys and Wolbring, 2021) and for her own coining of the Matilda Effect, which she explained as the bias that has long existed by failure to acknowledge great achievements made by women scientists (Columbia University Libraries, 2022).

The Ethics of Action, Inaction, and the Importance of Truth in History

When individuals witness the publication of a falsehood they arguably fall into one of three categories of person: (i) someone who cares about truth and so dare to stick their head above the parapet, (ii) someone who for whatever reason does not want to be involved in any way, or (iii) someone with no interest in correcting the falsehood,

and perhaps even active in knowingly perpetuating it even though they know it is wrong, because they are making an emotional, professional or financial gain from it. When social scientists discover falsehoods in the publication record, such as in the history of science and discovery, we argue that they have an ethical obligation to seek to set the record straight because our history should be based on empirical facts not falsehoods that create myths and fallacies.

Within the word limit of a book chapter, it is difficult to sufficiently convey the detailed information and reasoned arguments for why it is ethically important for people, particularly scholars of history, natural sciences, and the social sciences, to raise their head above the parapet to disseminate the empirical data-led story of Matthew, Wallace, and Darwin. In particular, it is ethically important to make wider society aware of how the new evidence of who read Matthew's (1831) book and cited it in the literature before Darwin or Wallace wrote a word on the topic is being unethically suppressed in the scholarly literature, social media, and on popular websites such as *Wikipedia* (see Wikipedia, 2022).

To try to convey as much information as possible to introduce this complex and detailed subject, this chapter pays homage to the style of the influential publication *Men of Ideas* (BBC, 1978), to present truncated (and conservatively edited for exactness and clarity), conversational excerpts from an interviewed debate between the chemist and science podcaster Myles Power (2014) and the present chapter's first author, about the new data on who read Matthew's book before 1858 and what it means for the history of scientific discovery, research, teaching, and publication ethics.

POWER	The talk you've just given was about Charles Darwin and how you don't believe he was the first to come up with the idea of natural selection. What evidence do you have that he might not have been the first?
SUTTON	There is a lot of evidence and published explanations are available in the orthodox history of science that Matthew fully articulated the complete theory of evolution by natural selection. Probably the most powerful of those explanations is from Richard Dawkins (2010) in Bill Bryson's edited collection *Seeing Further*, where Dawkins fully admits the only person who could be attributed with having the full theory of natural selection, prior to Darwin, is Matthew.
POWER	Who was Matthew?
SUTTON	Patrick Matthew in 1831 wrote a book called *On Naval Timber and Arboriculture,* which many of the few historians of science writing on the specific topic fully admit articulated the entire theory of natural selection, 28 years before Darwin wrote *Origin of Species.*
POWER	And did it definitely have the theory for natural selection in it?
SUTTON	Well, both Darwin and Wallace when confronted by Matthew in 1860 admitted it had the full and entire theory of natural selection. Subsequent to that, many experts have said he is the only person with the full precursory explanation for natural selection.
POWER	In the talk you just gave, you kind of said Darwin knew about it.
SUTTON	Well, the current explanation for how Darwin and Wallace came up with natural selection independently of Matthew and independently of each other is that they were all unique originators of the theory of natural selection. In other words all three were supposed to have come up with it independently of each other. The reason Darwin is

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	on the back of the £10 note and it is his statue in the Museum of Natural History in London is because he came up with so many confirmatory examples. And the story is that Matthew in particular never influenced anyone with his ideas. Darwin wrote in his defence after being challenged by Matthew [1860a, 1860b] in the *Gardener's Chronicle*: *"Neither I nor any naturalist known to me read Matthew's book."*
POWER	You in your talk said that's not the case. You even cited people who cited Matthew's book. Is that correct?
SUTTON	What Matthew couldn't do that we can do now in 2014 using *Google's Library Project* is to look prior to 1858, when Darwin and Wallace (1858) both had their papers presented before the Linnaean Society, and a year before the publication of Darwin's *Origin of Species*, to see whether anyone cited Matthew's book in the literature. Whilst the current story is that nobody did, in fact we find now that it was cited by 25 people [Note: in Sutton [2022] this has now been updated to 30]. This is new information. Seven naturalists cited it. Did Darwin and Wallace know any of them? Yes! They knew three.
POWER	They cited the book, but did they cite anything in it that had anything to do with natural selection?
SUTTON	John Loudon [1832] wrote a review of Matthew's book that literally said Matthew had something *"original to say on the origin of species."* That is not a new discovery by me. That is in a small amount of the literature written by others. But what people don't know is that Loudon went on to both edit and publish [Edward] Blyth's papers that were influential for Darwin's work on natural selection, some of which Darwin admitted influenced him.
POWER	Darwin had published his *Origin of Species* in 1859, right? So that is well before.
SUTTON	Darwin published 29 years later than Matthew. That was 28 years after Loudon's review. So we must ask next, who else cited Matthew's book who was known to Darwin and Wallace? Robert Chambers [1832] cited Matthew's book. Unlike Loudon, Chambers did not write about Matthew's book containing the theory of natural selection. He only cited what Matthew wrote about the pruning of trees. But Chambers [1844], who was a geologist, went on to publish *The Vestiges of Creation*, which is hailed by experts [e.g., see Secord 2000) as a major precursor to Darwin's *Origin of Species,* the most important book on evolution pre-Darwin. The book that is said to have *"put evolution in the air."* Chambers also cited Matthew's [1839] second book *Emigration Fields.* So we know Chambers was reading Matthew. Chambers knew Darwin. They met and corresponded long before 1858. And Wallace [1845] wrote that Chambers was his greatest influencer on the topic of the evolution of species.
	A third person is Prideaux John Selby [1842] who cited Matthew many times in his book and he did write about Matthew's theory, about how he did not understand what Matthew wrote about trees being circumstance suited. Selby edited Wallace's [1855] Sarawak paper on the evolution of varieties and species which was a major influence on Darwin.
	So out of only seven naturalists newly discovered to have read Matthew's book before 1858, three of them played major roles at the epicentre of influence on Darwin and Wallace. The question I ask is this: If contrary to where the newly unearthed data points, if somehow Matthew never influenced Darwin, are those citations of Matthew by Darwin's and Wallace's influencers and facilitators, and their influencer's influencers just an amazing tri-coincidence, even though such a multiple coincidence appears improbable as simple coincidence? Improbable beyond rational belief and reason?

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POWER	But anyway, you said in your talk that people like Richard Dawkins have dismissed Matthew by asking why he didn’t sing his theory from the rooftops if he thought he came up with an interesting theory. So what is your take on that?
SUTTON	First of all, to my knowledge Dawkins is not currently aware of the new data on who we now newly know did cite Matthew pre-1858. What Dawkins has written about is the fact some experts know and have fully admitted Matthew fully articulated the theory of evolution by natural selection before Darwin or Wallace. Dawkins is not writing about anything I have discovered. Dawkins admits Matthew got the full thing, but he says that does not matter because Matthew did not influence anyone. Dawkins says *“Nobody read it.”* We now know that’s not true. Dawkins asks: *“Why didn’t Matthew, if he knew what he had, trumpet it from the rooftops?”* But there are books written about why Darwin delayed publishing the theory for over 20 years because he was supposedly afraid of being labelled a heretic and of being prosecuted for heresy. So, you can’t have it one way and not the other. In 1831 there were riots. Matthew was a head of the Chartists. He provided a scientific explanation for why people were being kept out of their natural place by politics and the social class system. He was lucky his book wasn’t burned.
POWER	Does any of this really matter? And anyway isn’t discovery always a wishy-washy topic?
SUTTON	Unless we know who first discovered something, we cannot understand the process of its first discovery. It is veracity about discovery that interests me. One of the excuses given for Darwin’s replication of Matthew’s theory is by Michael Shermer (2002), head of the Skeptics Society. He writes that discovery is never a zero-sum game, because people always improve upon other people’s ideas and so there is no point in even discussing Patrick Matthew. But that is flim-flam because Darwin said: *“I never read Matthew and neither did anyone else.”* It is not that Darwin admits he built upon Matthew. He says Matthew had no influence at all on anyone with his prior published theory. So Darwin claimed Matthew’s influence was zero! And it is that very claim that has led to Matthew being illicitly denied his priority over Darwin and Wallace.
	Now, if we write Matthew out of the story, we don’t really understand how natural selection was discovered. We need to know how Matthew’s story fits the discovery of natural selection.
POWER	For me, personally, theories stand up on their own. It doesn’t matter who creates them. It doesn’t matter about the history behind them. From a scientist’s point of view, history is interesting, but it’s always wibbly-wobbly. It is not set in stone. People see things through rose-tinted glasses. History, I guess, is written by the winners, isn’t it? [Laughs].
SUTTON	Well, then we are talking about PR and game playing rather than understanding how the most groundbreaking discovery of all time was really made. If we are not really interested in how Mathew discovered it. . . .
POWER	I wouldn’t say we are not interested. I mean it is really interesting. . .
SUTTON	Does it matter?
POWER	Yes it does. Someone in the talk used the old analogy that you are just asking how many angels can dance on a pin. He was basically asking *“Does it matter?”* And I was thinking *“Yes of course it matters. We have to have an accurate history.”* That is why we have historians.
SUTTON	If we can collect enough valid data about how all breakthroughs are made it might help us to make new ones. We can only do that with veracious data. We don’t want wrong data.

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	So what we get to at the end of the day is the question *"Was Darwin influenced by Matthew?"* I think I've shown by way of the people we know influenced Darwin, who we now newly know read Matthew, that it is more likely than not that he was. Knowledge contamination seems to me, subjectively, to be more likely than not. We now need to look at Matthew in more depth in order to understand how he arrived at this discovery.
	The other argument is justice. Let's put aside the legacy that descendant relatives of Matthew would have, if you just look at injustice. If we let people get away with science fraud by plagiary, if they think they can get away with it for over 154 years and no-one will care, because it doesn't really matter, then their own legacy is secured. Is that not giving people a license to commit such science fraud so long as they can get away with it? As a criminologist, I think justice is important. Justice to Matthew.
	We must simply take a look at the facts, it doesn't matter that I am not a biologist. Since the great enlightenment, facts must stand on their own. The veracity of them is not determined by who discovered them.
	We now know for an empirical evidence-based fact it is not true that no naturalist read Matthew's book before Darwin and Wallace replicated the big idea in it. These are newly discovered facts. Darwin and Wallace said that no-one who they knew who was a naturalist read Matthew [1831] before 1858, we now know that is simply not true.

The Need for Honest Citation of Influencers

In the case of searching on terms or phrases of more than one or two words, using the Internet Date Detection (IDD) Method (Sutton & Griffiths, 2018), provided the evidence that led to Sutton's (2022) book *Science Fraud* and all the new relevant data in it that followed from his initial finding that Robert Chambers not only cited Matthew in 1832 but was apparently the first-to-be-second in published print with Matthew's apparently original phrase *"natural process of selection"* (Chambers, 1859).

Such research and subsequent publications on Darwin's plagiarism and lies to cover it up would never have been necessary if Darwin had been honest about his influencers. He lied in the third edition of the *Origin* (Darwin, 1861) that he was unfamiliar with the work of Buffon on evolution and lied that neither he nor any other naturalists had read Matthew's theory before 1860 (see Sutton, 2022).

Darwin showed his unscientific propensity to wish to see less famous discoverers buried in oblivion so that newcomers could claim their discoveries as their own in his letters to Hugh Strickland, the *British Association for Advancement of Science* codification head on priority for discovery. Here, Darwin (1849a, b) asked for a policy change so that lesser-known discoverers of species should lose priority to better known naturalists such as he who worked out more details about those discoveries. Strickland (1849) absolutely declined to support Darwin's unethical campaign.

However, Darwin was not alone in his self-serving machinations, forgetfulness, disingenuity, or dishonesty. It may not have been an outright lie told by one who knows the truth and wishes to convince the recipient that the truth is otherwise, or it may have been, when Matthew, who is guilty of not referencing his sources and of failing to tell us who his influencers were for his theory of evolution, informed Darwin by way of a published letter (Matthew 1860b):

> *To me the conception of this law of Nature came intuitively as a self-evident fact, almost without an effort of concentrated thought. . . .with me it was by a general glance at the scheme of Nature that I estimated this select production of species as an à priori recognisable fact—an axiom requiring only to be pointed out to be admitted by unprejudiced minds of sufficient grasp.*

Matthew's account of his breakthrough would be true if it occurred to him as a self-evident fact while necessarily grafting artificially selected slips from weak nursery-cultured trees bearing new types of desirable fruit onto hardy naturally selected crab tree root stock (Sutton, 2022). But even then, what if it did occur only because he had previously read something important and original that triggered it at the time of its conception? Whether or not that 'triggered moment' occurred to Matthew, we think we know what such a trigger something might have been for Matthew. And there are others too, but we do not have space to discuss them here. However, we highlight next what we suspect might have been a major influence on Matthew's 'eureka' moment.

The Origin of Darwin's "Four-Word Shuffle" of Matthew's "Natural Process of Selection"

Arguably, Darwin (1859) had no choice but to four-word shuffle, in order to try hide, his plagiarism of Matthew's unique original term 'natural process of selection' to his own re-generated term 'process of natural selection', because the theory is that, analogously different to human artificial selection for breeding, evolution occurs in nature by 'selection', which is both 'natural' and is a 'process' (see Howard 1982, p. 21). If evolution of varieties and the emergence of new species by natural selection was not described as happening by a natural 'process' then the way would be left open for creationists to understand selection to be made by divine supernatural miracle creation of new species and extinction of other species.

We now think the same four absolutely essential words of the theory lead us to how Matthew possibly came to his 'Eureka' moment and so coined the essential explanatory term 'natural process of selection'. While Matthew's 'natural process of selection' can only be grammatically re-arranged correctly into Darwin's 'process of natural selection' there are synonyms that can be substituted. And these IDD-facilitated findings that follow are presented here for the very first time.

The substituted words that identified the book written by the prolific Scottish writer Sir John Sinclair (i.e., *The Code of Agriculture: Including Observations on*

Gardens, Orchards, Woods and Plantations [1818]) that we think most importantly influenced Matthew's unique breakthrough. The term we used in the IDD method search was 'nature's process of selection'. We searched between 1500 and 1830 using the IDD method to locate any publication with the terms 'nature's process' and 'of selection'. This led us to page 401 of the first American edition of his book (Sinclair 1818) that distinguishes between artificial selection by humans and natural selection occurring in a "wild" state of nature (underlining by the chapter authors):

> *. . . effects may follow in breeds formed by selection. The selector may have begun with an individual, having some radical defect in form, constitution, or quality; and if he want judgment or opportunity, to correct such defect, by employing other cattle of the same breed, free from such, his cattle will degenerate, as before explained. In the case of selection from a small number, it is also to be observed, that the selector too often chooses the weakest male, because such appears of the most delicate form, and nearest approaching to female symmetry; and if this be continued for a few generations, it may easily be supposed, that such a breed will dwindle, compared to one, left to the process of nature, in which the strongest males, driving off the weakest, are exclusively employed for the propagation of the kind.*

Just like Patrick Matthew, Sinclair was a Scot and his note on the explanatory analogy between artificial and natural selection was in the Appendix of his book. Matthew (1831) put many (although by no means all) of his most heretical ideas on evolution in an appendix. The information Sinclair gave came by way of an answer from an eminent breeder named C. Mason Esq. of Chilton in Durham to the question of whether the system of in-breeding by means of artificial selection, to achieve a desired trait, and then perhaps breeding resultant offspring with those closer to the variety found in nature is a good idea. In short, the question is really asking whether breeding in and out is advisable.

Furthermore, in his book, Sinclair (1818) mentions the small area where Matthew's orchards were located (the Carse of Gowrie) on five pages. He mentions 'orchards' more than 100 times and 'naval timber' six times! Moreover, the full title of his book (*The Code of Agriculture Including Observations on Gardens, Orchards, Woods, and Plantations*) most certainly would have attracted Matthew's interest.

The 1818 edition (the American edition) was found by using IDD. When we next examined Ockerbloom's (2022) list of books by Sinclair that are archived by the Hathi Trust we found Sinclair's (1819) British edition to see if the same text is in a copy Matthew would have been more likely to have read. In that edition, we found the same explanatory analogy of differences between artificial selection and selection by nature (although in this edition, it is on page 99 of the book, not in an appendix, and the example given references sheep rather than cattle). However, a footnote in this edition attributes the information to a remark by C. Mason Esq of Clifton. Here, as in the American edition, we must be clear that Sinclair is writing only about the differences between the same species of animal selected by nature as opposed to those selected by humans, not the emergence of new species by natural selection, which is what Matthew uniquely did with the essential explanatory

analogy of differences between natural and artificial selection before Darwin (1859) and Wallace (1855) replicated it.

Matthew never cited Sinclair. Neither did he cite the important earlier work of others that most likely influenced his thinking on evolution – naturalists such as Georges-Louis Leclerc Buffon, Jean-Baptiste Lamarck, and John Hunter to name but a few. Importantly, Darwin never cited Sinclair either. Had Matthew done so, it might have been much harder for Darwin and Wallace to claim (like Matthew) that they independently originated the theory of evolution by natural selection.

The Patrick Matthew Effect in Science: Does It Matter?

Merton (1968) described how already eminent scientists are given disproportionate credit in genuine cases of independent multiple discovery. He wrote that this behaviour by the scientific establishment negatively impacts the growth of new centres of scientific excellence. However, an exact opposite conclusion was arrived at by Strevens (2006), who later examined the Matthew Effect further to understand why it exists and concluding that it is a good thing. Strevens argued that the Matthew Effect allocates credit fairly because the reputation of an initial obscure independent "co-discoverer" (as Strevens terms them) is enhanced by the extension shone retroactively upon them following confirmation of their prior work by someone more famous than they are. However, Strevens fails to take account of ignorance, blindsight, and other psychological 'states of denial' (see Cohen 2001) and/or the publication of willful fact denial, other misinformation, and fake news by plagiarists and their supporters. Moreover, Merton failed to recognize another great irony. Namely, that in coining his 'Matthew Effect' he never addressed the case of the replication without attribution of Patrick Matthew's (1831) theory of the natural process of selection by Charles Darwin (1858, 1859) and Alfred Wallace in (1855, 1858). Additionally, Strevens's argument only holds up in that very particular case if Matthew is duly credited with full theory origination priority over Darwin, which to date has not happened.

The Matthew Effect is further critically exposed by what might be termed "The Patrick Matthew Effect". This is in relation to how some writers have done even more to deny Patrick Matthew his priority by now, suddenly pivoting in light of new data on who we now newly know did read and then cited Matthew's book, containing the full theory is a significantly different theory altogether (e.g., Dagg, 2018; Weale, 2015). In other words, these scholars have done so to make a new claim that Darwin and Wallace could not have plagiarized the work of Matthew. They now argue this in order to propose that Matthew does not now (but only in light of their new arguments that the theories are now different) have priority for his prior published theory that the new data would otherwise establish. They do so to seek to claim Darwin was not a plagiarist because he could not have been influenced by Matthew if the theories were different. This "theory difference argument" is only now being made because the old excuse has been disproven. That now debunked old

excuse being that no naturalist known to Darwin or Wallace, or to any of their friends and influencers, had read Matthew's book and the theory in it. Importantly, we must point out that these writers, in making this new argument, conveniently ignore the fact that the most renowned and leading experts on the topic (i.e., de Beer, 1962; Mayr, 1982; Dawkins, 2010; Ford 2011, 2020; and Rampino, 2011), all wrote that in all important respects the theories are the same.

Charles Darwin's wealth, combined with the same powerfully superior *Royal Society* scientific friendship networks enjoyed by his grandfather, his father, and his sons meant that he was better able than Patrick Matthew (a scientific outsider and bankrupt farmer) to be researched, promoted, and maintained as the originator of natural selection and as a great thinker and influencer on the topic. The X-Club was formed specifically to build up Darwinist sway within the *Royal Society* and the *British Association for the Advancement of Science* (Desmond et al., 2007). Matthew, with no such champions, never stood much chance of being awarded the rightful respect and priority he sought through his various published complaints in newspapers and in the *Gardener's Chronicle* (see Sutton, 2022, for a full detailed account). But Matthew was first to publish the full theory of natural selection. Therefore, under the recognized rules of the Arago convention on priority (see Biagioli [2012] for a full explanation of the origination and naming of Arago rule), he did all that the institution of science officially deems necessary for him to be awarded full and complete priority publication of his original theory. Merton (1957) explained that this rule existed in 1858 and remains the norm today. As Strevens (2003, p. 4) explains in no uncertain terms:

> *. . . here concerns the extreme literalness with which the priority rule is enforced: if the same fact is discovered twice, Merton notes, the first discoverer garners all the rewards no matter how slender the margin by which it edges out the second.*

In blatant disregard for the rules and conventions of priority, influential Darwinists such as Dawkins (2010) and Bowler (2013), insist that Matthew, at least according to them, should have further trumpeted, expanded, and promoted his original ideas ahead of Darwin's and Wallace's replication of them in order be awarded full priority and to be considered a great originator, thinker, and influencer in science. His failure to do this is seen as rational justification for the scientific community's promotion of Darwin and Wallace over him. But this Darwinist rationalisation raises a most telling question. Namely, why then is it not hypercritical and biased of Darwinists to justify the fact their namesake delayed publishing on the topic of natural selection for 21 years on grounds that he feared being prosecuted and ostracized for heresy and sedition (Desmond et al., 2007), and that Robert Chambers was compelled to publish his 1844 book *Vestiges of the Natural History of Creation* anonymously until the day he died, because of the social stigma attached to publishing books that questioned natural theology on the origin of species (Secord, 2000). Why then is Matthew, who never had the powerful scientific connections that Darwin enjoyed, or the esteem in which he was held, required to have done what Darwin, and Chambers, quite reasonably, could not do for so long, and to be required to do so at an earlier time when it was even more dangerous and difficult? It seems

only recognition of the Patrick Matthew Effect can explain this unethical and extreme Darwinist bias.

The meaning of the ancient term '*Palmam Qui Meruit Ferat*', translates essentially into the principle *"let whoever earns the palm bear it."* The principle is used in scientific circles to mean achievement should be rewarded to the person who most deserves it. However, 'just deserts' for such 'earning' is a broadly subjective assessment, which does not help us decide whether the person who is first with a scientific discovery deserves the laurels more than the one who does more work to confirm the veracity and importance of that prior breakthrough, and by so doing, convince others of its significance, as Darwin undoubtedly did.

To labour the essential point already made, how the lesser-known prior published ideas and words of others spark a breakthrough by those influenced by them is fundamental to our understanding of how great breakthroughs are made in science. Can anyone rationally deny the huge influence Rosalind Franklin had on Francis Crick and James Watson's work on the structure of DNA? Furthermore, Howard Florey and Ernst Chain made no secret that it was an obscure published note by Alexander Fleming that led them to take forward his ideas about using penicillin mould as a topical medicine to develop its use by them as arguably the most important systemic medicine of all time (Fletcher, 1984). It was only because they were adamant of his influence on them in that obscure text that led to Fleming jointly receiving the Physiology or Medicine Nobel Prize in 1945 with them. Explaining this story in great detail, Macfarlane (1984) notes that Fleming discovered a unique strain of penicillin and published several papers on its value as a topical treatment. Fleming kept the strain alive and supplied it to laboratories as a reagent. But he failed to see the significance of his data. The discovery that Fleming's unique strain was capable of becoming a systemic wonder drug, and the process of improving its production was Florey's and Chain's.

The nineteenth century case of Marc Dax versus Paul Broca for the discovery that the left hemisphere of the brain as the seat of articulate language has many parallels with that of Matthew versus Darwin and Wallace. Dax articulated the discovery in an 1836 paper, which was expanded by his son and re-submitted to the *French Academy of Medicine* in 1863 and then published in 1865. Six weeks after the publication of that 1865 paper, Broca published a far more famous paper containing the same discovery, which failed to cite Dax's prior published discovery. Buckingham sums up the situation, after citing evidence, gathered by others, that Broca knew many scientists who would have had access to Dax's original findings (see Buckingham, 2006). This is the exact same issue of the known existence of routes for prior knowledge contamination and most likely science fraud by glory theft that we are faced with in the case of Matthew and Darwin. Such cases are shamed by the story of Fleming, Florey, and Chain.

Romance and Lies of Icons and Institutions vs. Painful Enlightenment by Empirical Data Driven Facts

Irish physicist and historian of science John Benal (1954, pp. 22–34) explained that universities interested in attaining prestigious reputations and advertisement for the expertise of its staff *"…will only want results to be sufficiently spectacular and not too disturbing."* This raises – indeed begs – the question in the true philosophical sense, of the ethics of institutional censorship and the self-censorship of facts that it generates. Schama (2022) said in a recent television documentary: *"What we all needed [need] to live truly human lives is a sense of belonging, a connection to the traditions of our own tribe … The more modern we become the more we need anchorage in memory, in dreams, in ancestry, in myth, in the universe of the connected imagination."* What Schama refers to as a *"community of belonging"* is something that is as powerful as any religion, and Schama (2022) said it is *"so viscerally powerful it can also bring with it a dangerous state of mind"*.

We know dangerous minds can engage in and create dangerous behaviour. More specifically, that can mean engaging in academic misconduct such as misrepresentation of data, brute censorship, and even criminal malicious harassment for those who dare to put their head above the parapet (see Sutton [2022] for fully evidenced examples of such behaviour by others following his naming of the scientists who cited Matthew pre-1858, vindictive, prolific and systematic workplace harassment behaviour that both authors of this chapter have been subject to because of their published work on this topic). We have been subjected to this disgraceful behaviour for daring to put our heads above the parapet by going into print to more widely disseminate empirical data that seriously questions the honesty and originality of Charles Darwin, arguably the world's most beloved scientist.

The cultural resistance of the science community to researching this area, or indeed towards others doing so, is manifested by what Merton (1973) called *"studied neglect of systematic study of multiples and priority."* Merton (1973 pp. 391–392) explains why this is so:

> *…charged with blemishing the record of undeniably great men of science; as though one were a raker of muck that a gentleman would pass by in silence. Even more, to investigate the subject systematically is to be regarded not merely as a muckraker, but as a muckmaker.*

It follows, we must not be forced by unethical bias and fear of embarrassing exposure of earlier ignorance of wrongdoing by proclaimed experts to ignore important empirical data, because empirical data are necessarily what defines science (Strevens, 2020).

Discussion on the Way Forward

Separating the muck from the facts with the rake of systematic inquiry led to independently verifiable disconfirming evidence for unevidenced mere wishful thinking beliefs in the story of Matthew, Darwin, and Wallace. If Patrick Matthew

is to be celebrated as a great thinker and influencer in science, his work and life will be subject to academic scrutiny approaching at least some useful fraction of that focused on Darwin. From such detailed expert enquiries, lessons for facilitating advances in future breakthroughs might follow. Useful things might then be learned also about the context of the process of discovery, and the influence upon others of one of the most important ideas of all time.

Encouragingly, along these very lines, this idea has been anticipated by over 100 years by Zon (1913), who offered some tantalizing suggestions for why Matthew’s interest in forest trees might have led him be first to discover natural selection. Matthew’s profession as an award-winning hybridizing fruit farmer may also present a rewarding line of systematic inquiry. Science fraud by plagiarism is explicable with Merton’s theory of discovery, but it cannot help us perceive its presence. For that we need to focus on the evidence supporting and questioning individual cases of claimed independent multiple discoveries.

The many years of failure of the academic community to systematically investigate Darwin’s and Wallace’s replications of Matthew’s ideas, has been obfuscated in no small part because pseudo-openness has been permitted to masquerade as honest enquiry. This subtle characteristic of the concealment culture of evolutionary biologists may stem from Darwinist cultural concealment of what precisely was written in Matthew’s 1860 published letters in the *Gardener’s Chronicle*.

Myth creation in all societies allows believers to cope with the unknown by filling in their knowledge gaps with comforting stories (Maranda, 1972). The myth that Matthew’s ideas were unread by any naturalists before 1860 enabled the scientific community to believe in Darwin’s and Wallace’s accounts of how and why theirs were independent discoveries. But it is universally accepted in science that before proceeding to explain or interpret any phenomenon, individuals should first establish that it actually exists (Merton 1987). The phenomena of Darwin and Wallace’s independent conceptions of Matthew’s original ideas never existed, other than as a now debunked science supermyth. We know that fact was discoverable in 1860, because Matthew (1860a, b) informed Darwin in print in the *Gardener’s Chronicle* that John Loudon cited him, that an unnamed eminent university professor was afraid to discuss his heretical breakthrough for fear of pillory punishment and that the public Library of Perth in Scotland banned his book on the same grounds.

Conclusion

The notable absence of discussion of Loudon’s (1832) review, or discussion of the existence of other such disconfirming evidence for Darwin’s and Wallace’s separately claimed and then jointly agreed by them and their admirers to be independent conceptions of Matthew’s prior published theory, is underpinned in the Darwinist literature by an insistent and unambiguous (yet illusory) denial that any other naturalists read the unique ideas in Matthew’s book. Consequently, since 1860, evolutionary biologists have successfully promoted Darwin and Wallace over

Matthew on the grounds that the originator's ideas went unread by naturalists and therefore could not have influenced the replicators Darwin or Wallace. Contrary to that belief, the published literature shows that Matthew's book and the original ideas in it on the origin of species, in fact, were read by other naturalists. Importantly, after citing it, those naturalists interacted with Darwin and Wallace and with their associates, known influencers and editors, which means there are now clearly several identifiable routes of possible pre-1858 Matthewian knowledge contamination of the work of Darwin and Wallace.

Even in absence of evidence of plagiarism, the rules and conventions are that priority for a discovery in science is awarded to those who are first to publish it. On these grounds, Matthew has priority over Darwin and Wallace. As for deciding the question of Matthew's status as a great thinker and influencer in science, the new data allows those empowered to decide such things to see and understand why for the first time the evidence spins in more than just Darwin's direction. The rules of priority for discoveries, supported by weight of new evidence that disconfirms the beliefs that informed earlier judgment on this issue, requires a review of Matthew's status as both discoverer and influencer in science.

When new empirical data prove errors of fact, as Merton (1987) explained, a new hypothesis is required, arrived at by a process of abduction, suggested by the new facts, which would predict those newly observed facts and account for them by way of the simplest and most likely explanation. From that cause, a hypothesis can be proposed, based on the premise that the newly highlighted knowledge contamination routes to Darwin and Wallace make it likely that such extensively networked scientists would have learned of Matthew's ideas from those they met and corresponded with who read them, or else from others who read them, or those who knew those who did, who were part of those networks. Let us name this testable proposition as the "New Data-Led Smoking-Gun Hypothesis", which is based on a non-guaranteed premise, that a note or letter will next be found, which proves Darwin and/or Wallace were aware of Matthew's ideas pre-1858.

To seek to confirm or disconfirm this hypothesis, the archives of those newly shown to have cited Matthew's 1831 book pre-1858, and of those who were apparently 'first-to-be-second' – indeed second- and third-to-be-second – with apparently unique Matthewisms (see Sutton, 2022) should be examined to see if they contain any 'smoking gun' letters or private journal entries that prove either Darwin or Wallace or their closest friends (Charles Lyell, Joseph and William Hooker, William Bateson, Thomas Huxley or Leonard Jenyns) read Mathew's book.

With regard to the way forward, beyond the specific story of Matthew, Darwin, and Wallace, we should no longer resist the importance of the issue of "multiples", priority, and science fraud as a topic worthy of systematic research. Inquiry into this field is crucial if we are to add to the sum of knowledge about how best to improve the conditions and create the circumstances favourable to great breakthroughs in scientific discovery.

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Afterword: The Future of Academic Integrity and the Social Sciences

Guy J. Curtis

The social sciences are generally text-heavy academic disciplines. Authors read, and researchers write, a lot of words. Some other academic disciplines are different, some, like mathematics, are symbol-dense, which presents a unique set of academic integrity challenges (Seaton, 2019). Disciplines like engineering and biology make more use of images and diagrams, and others still, like medicine, often publish very short reports of research as compared with the tomes often produced by social scientists. In recent years technology has improved substantially in allowing researchers outside of the social sciences to more readily automate previously-manual processes like image editing, computer coding, mathematical writing, and statistical analysis. At the same time, for the social sciences, writing words has remained a primarily manual task.

Over the past decades, various technological advances have made writing easier. For example, spelling and grammar checks, right-click options for synonyms, and more advanced tools that suggest rephrasing have acted like butlers – anticipating and assisting the needs of writers, and cleaning up some of their messes. Although not widely used among writers, voice-recognition software can dramatically increase the rate at which a slow typist gets words from their brain to the virtual page on their computer screen. Still, no change to the writing task of social scientists shows as much promise in speeding up and automating the process as generative artificial intelligence.

In the time between this book being proposed, mostly written, and me coming to write this Afterword, the OpenAI platform released ChatGPT (GPT standing for generative pre-trained transformer) . . . and then ChatGPT Plus, and then ChatGPT Plus based on GPT-4. ChatGPT potentially produces vast quantities of fairly accurate and coherent text in quick time in response to prompts. For academic disciplines,

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such as most of the social sciences, which produce mostly written scholarship, and, typically, assess students' understanding via written tasks, this technology is both revolutionary and deeply threatening to "business as usual".

In years gone by, a social science academic may set a straight-forward essay assignment such as asking students to write 1500 words in answer to the question: "Does psychoanalysis have any relevance to modern psychology?". When considering academic integrity, the grader of students' essays in response to this question may be concerned that all, or part, of an answer has been copied from a book, an article, or another student. However, text-matching software has proved to be a useful crutch to detect such plagiarism (Weber-Wulff, 2019). Similarly, the academic may worry that the student out-sourced the writing entirely to another person – a practice called contract cheating – that is less frequent than plagiarism, but difficult to detect (Eaton et al., 2022). Still, many students may be dissuaded from contract cheating by some clear and inherent risks involved in the practice, such as the risk of paying for low-quality work, not receiving the essay they paid for in advance, or being blackmailed by a writer who knows that they cheated (Yorke et al., 2020). However, now, in response to the question used as a prompt, within seconds ChatGPT can produce an essay of the word-length specified. This essay may be sufficiently "original" as to not produce alerts from text-matching software, and students avoid the cost (ChatGPT is currently free), possible time-delays, and risks inherent in employing a ghostwriter. Importantly, in submitting this essay for grading, the student has not met the learning outcomes the marker intended but, instead, has demonstrated their ability to produce text from a text-production machine. Clearly, this scenario represents a shattering of the integrity of the assessment process.

Still, as I write this Afterword and cast around in my mind for the next thing to type, I find that it is easy to empathise with students who experience writer's block and use a generative AI program to provide them with some draft text to push them along toward the goal of meeting the all-important assignment word limit. And, as I imagine using ChatGPT to write the rest of this Afterword for me, I can viscerally feel how easy it would be to navigate to its website, put in a prompt, and copy whatever text it gave me in response. As criminology research shows us, opportunity is a powerful predictor of wrongdoing and ChatGPT is exquisitely opportune. Thus, it is no surprise that in my very first batch of grading after the release of ChatGPT I found AI-produced content in a student's assignment. Clearly, I need to rethink my assessment design, and, I suspect, I am not alone among academics in the social sciences who have had, or will have, similar experiences very soon. So, the future of academic integrity in the social sciences, I think, will be contentious and interesting for some time to come.

The arts and humanities have always been good at making observations about the world and the human condition, albeit with more flare and less systemic process than the social sciences. So, now from the social sciences I turn to the arts, and to the poet Lord Byron specifically, for one of my favorite bits of verse about how we might deal with what lies ahead.

And for the future – (but I write this reeling,
Having got drunk exceedingly today,
So that I seem to stand upon the ceiling)
I say – the future is a serious matter –
And so – for God's sake – hock and soda water!
(Byron, 1902, p. 2203)

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