

On the Appropriateness of Research Design: Intended and Actual Whistleblowing

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Introduction

The act of trying to stop ill doing goes way back in time (cf. Park, Rehg and Lee 2005; Vinten 1994). However, whistleblowing research is commonly depicted as related to civil and worker initiatives in the US in the 1960s and 1970s (Bok 1981). In those times, one of the first efforts to create a body of research consisted of compilations of case stories of what whistleblowers had experienced (for instance, see Nader *et al.* 1972; Peters and Branch 1972). This period also included books and movies based on experiences from whole organizations and actual cases (for instance, see Anderson *et al.* 1980; Maas 1973). Later, theoretical papers and empirical research of the act of reporting wrongdoing at work became more common (Miceli and Near 1989; Parmerlee *et al.* 1982). While the first compiled versions of whistleblowing cases were important for getting attention to the topic, theoretical and empirical research was and is crucial to gaining systematic knowledge about whistleblowing at work.

The act of whistleblowing is commonly defined as ‘the disclosure by organization members (former or current) of illegal, immoral or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action’ (Near and Miceli 1985: 5). Studying real-life whistleblowing is hard due to several factors. It is a sensitive topic, so gaining entry into organizations and ensuring participants that their anonymity will be kept can be challenging. Moreover, in quantitative research designs large samples are necessary to get sufficient numbers of silent observers and actual whistleblowers for statistical analyses. Difficulties such as

these make it challenging to answer the key question ‘What makes observers of wrongdoing decide to blow the whistle?’ As a result, some researchers have turned to the study of intentions to report. Focusing on intentions has many advantages. It is less sensitive and anyone, not just actual observers or whistleblowers, can report their willingness to report various types of wrongdoing. Moreover, in experimental designs contextual factors can be manipulated and their causal impact on intentions to report can be observed. The problem is that results from studies on actual and intended whistleblowing often point in different directions. In this chapter we will argue that many of the apparent inconsistencies and lack of coherence in findings are due to methodological rather than substantial factors. We will also outline how the reasoned action approach (Fishbein and Ajzen 2010) can serve as an integrating theoretical framework for research on actual and intended whistleblowing. Finally, we will make some practical recommendations for future research on whistleblowing. In the next two sections we will first present the two research lines, actual and intended whistleblowing, and then we will present some of the measures that seem to be most widely applied in the investigation of these two types of whistleblowing.

The Two Research Lines: Intended and Actual Whistleblowing

Empirical research on whistleblowing has often focused either on which factors predict whistleblowing when people are faced with scenarios describing wrongdoing (*intended hypothetical reporting*), or focused on what employees who have *actually* reported wrongdoing are characterized by and have experienced. Unfortunately, these two strands of research have seldom intertwined. In their 2005 meta-analysis of the whistleblowing field, Mesmer-Magnus and Viswesvaran reported that they had located only two studies linking intent to blow the whistle with actual reporting. An overview of studies since their review (identified by a cited reference search in the ISI Web of Science database, August 2012) shows that intentions to report and actual reporting have not been linked in more recent research either (see Table 6.1).

Table 6.1: Whistleblowing Studies after 2005 Citing Mesmer-Magnus and Viswesvaran’s (2005) Meta-Analysis

Authors	Year	Intended	Actual	Relationship between intended	Other
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				and actual	
1. Avery, McKay & Hunter	2012				X
2. Bashir, Khattak, Hanif & Chohan	2011		X		
3. Calderon-Cuadrado, Alvarez-Arce, Rodriguez-Tejedo & Salvatierra	2009				X
4. Casal & Bogui	2008	X			
5. de Graaf	2010				X
6. Decker & Calo	2007				X
7. Fredin	2011				X
8. Hassink, de Vries & Bollen	2007				X
9. Hedin & Mansson	2012		X		
10. Jackson	2008				X
11. Jetten, Hornsey, Spears, Haslam & Cowell	2010				X
12. Kaplan, Pany, Samuels & Zhang	2009	X			
13. Kaplan, Pope & Samuels	2011	X			
14. Kaptein	2011	X			
15. Kish-Gephart, Detert, Trevino & Edmondson	2009				X
16. Klaas, Olson-Buchanan & Ward	2012				X
17. Kölbel & Herold	2010				X
18. Liyanarachchi & Newdick	2009	X			
19. Liyanarachchi & Adler	2011	X			
20. Miceli, Near, & Dworkin	2009				X
21. Nayir & Herzig	2012	X			
22. Nielsen & Einarsen	2008		X		
23. Oh & Teo	2010	X			
24. Ohnishi, Hayama, Asai & Kosugi	2008		X		
25. Park, & Blenkinsopp	2009	X			
26. Paukzstat, Steglich & Wittek	2011	X			
27. Pemberton, Tombs, Chan, & Seal	2012				X
28. Pillay & Dorasamy	2011				X
29. Richardson & McGlynn	2011		X		
30. Robinson, Robertson & Curtis	2012	X			
31. Rothwell & Baldwin	2007	X	X		

32. Seifert, Sweeney, Joireman and & Thornton	2010	X			
33. Skivenes and Trygstad	2010		X		
34. Stansbury & Victor	2009		X		
35. Taylor & Curtis	2010	X			
36. Teo & Caspersz	2011				X
37. Trevino, Weaver & Reynolds	2006				X
38. Vadera, Aguilera & Caza	2009				X
39. Zhang, Chiu & Wei	2009	X			
40. Zyglidopoulos & Fleming	2008				X
Total number of studies		15	8	0	17

Our minor pilot review (Table 6.1) shows that there is a tendency towards more focus being directed at intended and other aspects of whistleblowing; more so than studies of actual whistleblowing and studies of the relationship between intended and actual whistleblowing. One way to approach this situation is simply to state that the number of studies that address the relationship between intended and actual whistleblowing should be increased. Another is to aim at bringing these two lines of research closer together through theory, that is, by applying a theoretical perspective that can provide a language for these two lines to talk to each other.

Another issue raised by the meta-analysis by Mesmer-Magnus and Viswesvaran (2005) is that there are variations in the correlates of intended and actual whistleblowing, which at a first glance seem to indicate that there is little value in the intent approach for understanding actual whistleblowing.

Measuring Actual Whistleblowing

Research on actual whistleblowing has been conducted in several ways, although there are (as of now) no standard cross-nationally validated instruments for measuring whistleblowing at work. However, a dominant tradition in the measurement of actual whistleblowing has been the different versions of questionnaires applied in the large scale studies conducted by the Merit System Protection Board (MSPB) in the US since the 1980s (Brown 2008; Near and Miceli 2008). In this tradition, respondents are first asked whether they had ‘personally observed or obtained direct evidence of’ one or

more of 18 types of wrongdoing (for instance, accepting bribes or kickbacks and/or unwelcome sexual advances or requests for sexual favors that are made a condition of employment or are used as a basis for employment or career decisions) during the last 12 months (Miceli *et al.* 2012: 933). After this, respondents are asked to select ‘the one activity that represents the most serious problem you observed or obtained direct evidence of’. Whistleblowing is further measured as the proportion of respondents who have observed wrongdoing and have reported it to a valid complaint recipient. In addition to yielding information about types of wrongdoing and whistleblowers, this approach gives information about whether respondents are aware or unaware of a wrongdoing, coded as observers and non-observers respectively, as well as respondents who do not report the misconduct they have witnessed, namely inactive or silent observers. For a detailed and thorough description of the questions applied, see Miceli and colleagues (2012: 933–934).

The approach employed in the MSPB studies may be labeled a *behavioral approach*. Whistleblowing is measured by asking questions about the observation and reporting of wrongdoing and afterwards respondents are categorized into groups such as non-observers, observers and whistleblowers (Miceli and Near 1984). The behavioral approach yields overall information about how much wrongdoing is observed and how many blow the whistle. This approach also assumes that the listed wrongdoings, which according to the definition should be illegal, unethical or illegitimate acts, are not interpreted differently across countries of application. A behavioral approach can have limitations when applied as an operational definition across national settings (see, for instance, Jubb 1999).

An alternative is the operational definition approach (Bjørkelo 2010). In this tradition, respondents are presented with an operational definition of whistleblowing (based on the state of the art definition by Near and Miceli, in Bjørkelo *et al.*, 2010: 378):

‘Whistleblowing is when an employee (former or current) that is witnessing or has *witnessed* an unethical, illegal or illegitimate practice at work openly (not anonymous) reports about it to a person or a body that has the ability to change the practice. Whistleblowing is not when the reporting is done in order to gain personal profit. The person or body that receives the report may be internal to the organization (for

example: a leader, safety deputy, elected employee representative), but may also be an external body or group of influence (for example: the police or other public authorities, media, or an environmental organization). Reporting about one's own exposure to workplace bullying, is NOT regarded as whistleblowing'.

and are *then* asked whether they would describe themselves as whistleblowers or not. Thus, the evaluation of whether the act that is reported is considered illegal, unethical and illegitimate is left to respondents in the respective countries where a study is conducted. Only thereafter is a list of specific wrongdoing types presented. The operational definition approach potentially improves the link between the theoretical definition and cultural perceptions of types of wrongdoing. The drawback of this approach is that it is not clear whether respondents who do not label themselves as 'whistleblowers' are silent observers or non-observers. In order to calculate the prevalence of whistleblowing it is therefore important to include a measure of the total amount of wrongdoing observations made before the operational definition is presented. Applying operational definitions across nations without any consideration or adjustment poses a threat to validity. If no adjustment is made (i.e., an etic approach), the underlying assumption is that the same operational definition can be applied universally, regardless of national or cultural context (Ryan *et al.* 1999). When culture is taken into consideration (i.e., an emic approach), Ryan and colleagues argue that the underlying assumption is that taking into account relevant characteristics of the national culture at the place of application is a prerequisite for achieving culture-appropriate measurement. This is however *not* to say that the development of a new measure in each nation of application is recommended. What *is* recommended is to ensure that the measure intended for use is evaluated and found helpful in the nation of application before data are collected.

Measuring Intended Whistleblowing

Research on intended whistleblowing has applied a number of measures. One is the Whistleblowing Propensity Inventory (WPI). The WPI was developed by Keenan (1990), based on the questionnaires applied in the MSPB studies. In the WPI, respondents are asked whether they would 'feel personally obliged to report it' if they

‘were to observe a dishonest or fraudulent activity’ (Keenan 1995: 576). Examples of the ten types of fraudulent and wrongful activities provided are stealing funds or property, bribes and sexual harassment (Keenan 2000). Changes in terminology from the MSPB studies, that concerned federal employees, were made in order to ‘reflect work environments of managers within the private sector’ (Keenan 1990: 227). Items are introduced as measuring ‘opinions and perceptions about organizational practices in regards to whistleblowing’ and respondents are asked to indicate their intention to report on a scale from 1 (definitely no) to 5 (definitely yes) for each of the ten types of wrongdoing (Keenan 1995: 575–576).

Another way of measuring whistleblowing intent has been applied by Park and Blenkinsopp (2009). They measured whistleblowing intention by asking the question: ‘If you found wrongdoing in your workplace, how hard would you try to do the following?’ (Park and Blenkinsopp 2009: 549). This question was followed by eight items describing possible complaint recipients inside and outside the organization such as ‘Report it to the appropriate authorities outside of the organization’ (external whistleblowing) and ‘Report it to the appropriate persons within the organization’ (internal whistleblowing). For each of these items, participants were asked to indicate how hard they would try to report on a scale ranging from (1) ‘not at all’ to (5) ‘very hard’.

Ellis and Arieli (1999) measured whistleblowing intent by presenting participants with three improper situations or scenarios. An example of the situation was the following: ‘An officer in your brigade, above you in rank, gave a false report of amount of engine running-time during drills’ (Ellis and Ariel 1999: 954). Participants were then asked about their whistleblowing intention, measured by the questions ‘If you encountered this situation, would you report it?’ Intentions were to be indicated on a seven-point scale (-3 through 0 to +3).

Similarly, in a study of certified accountants, Liyanarachchi and Adler (2011) measured whistleblowing intent with the use of the propensity to blow the whistle instrument (PBW). In PBW, participants were first presented with three whistleblowing scenarios and subsequently asked how likely it was that the ‘individual in each of the scenarios would blow the whistle’ (Liyanarachchi and Adler 2011: 172). The response categories were on a seven-point Likert type scale for each scenario. The

authors then made a composite score of the participants' responses from the three scenarios. In contrast to the other measures of intentions described above which are focused on what the respondents themselves would do, Liyanarachchi and Adler's (2011) approach focused on what the respondents believed a third person (described in the scenarios) would do.

In a study by Brabeck (1984), 32 undergraduates first filled out the defining issues test (DIT)¹. Participants were told that the administrator, a graduate student, was collecting data for a study he was conducting. The task was to read an article, authored by a professor–investigator and answer questions about it in a later test. Participants were then presented with different articles that contained errors. After a month, participants responded to the whistleblowing questions. Intended whistleblowing was measured by the amount of participants who reported on the designed errors in the article to the investigator in the trial. In another scenario study, Miceli *et al.* (1991) measured intended whistleblowing by asking participants whether they, during the study, were asked to do anything they would consider objectionable. This question followed a staged situation where students had 'witnessed apparent wrongdoing by a research assistant' (Miceli *et al.* 1991: 271).

In addition to either actual or intended whistleblowing, the World Online Whistleblowing Survey² investigates *public views* about whistleblowing, and among other things, asks participants who are members of an organization whether they would feel 'personally obliged to report it to someone' in their organization if they observed wrongdoing. Participants are asked to respond on a five-point scale ranging from (1) 'strongly disagree' to (5) 'strongly agree'.

To summarize, actual whistleblowing is typically measured by either the behavioural approach where the respondents indicate whether they have observed and reported various types of wrongdoing or by the operational definition approach where respondents read a definition of whistleblowing and label themselves as whistleblowers or not. Intentions to blow the whistle have been measured by questions of whether the respondents would report specific types of wrongdoing (Keenan 1990; 2000) or report wrongdoing in general (Park and Blenkinsopp 2009), as well as by asking respondents to indicate how they themselves or a third person would behave in a hypothetical scenario (Ellis and Arieli 1999; Liyanarachchi and Adler 2011). In

addition, it can also sometimes be difficult to categorize a study as focusing on *either* purely intended *or* actual reporting.

Correlates of Intended and Actual Whistleblowing

Due to the variety of ways to approach whistleblowing in research, Mesmer-Magnus and Viswesvaran (2005) compared results from studies focusing on intentions with results from studies on actual reporting. One of the main findings from their meta-analysis was that ‘the predictors of the intent to blow the whistle are not the same as those of actual whistleblowing’ (Mesmer-Magnus and Viswesvaran 2005: 288). Moreover, the authors stated that many of the variables ‘measured in studies of whistleblowing are stronger correlates of whistleblowing intent than of whistleblowing action’ (Mesmer-Magnus and Viswesvaran 2005: 288–289). Finally, they found that the very limited research on the relationship between intended and actual whistleblowing suggests that whistleblowing intentions are unrelated to actual whistleblowing. What do these findings imply? Are intended and actual whistleblowing different things? Are studies on intentions to blow the whistle uninformative when the goal is to understand whistleblowing in natural contexts? Before drawing such conclusions, we will take a closer look at methodological factors that may be central to understanding the divergent results.

To our knowledge, there are no published prospective field studies of whistleblowing, that is, studies in which the hypothesized predictors of blowing the whistle are measured at one point in time and actual whistleblowing is measured at a later time. Rather, field studies of whistleblowing have been cross-sectional and focused on asking managers and employees about their experiences (Miceli *et al.* 2008). In scenario studies, on the other hand, the hypothesized predictors are typically measured before the respondents engage with the scenario, or predictors are experimentally manipulated. In a simplified fashion, we can say that in existing field studies the predictors of whistleblowing are measured *after* the respondents have blown the whistle (or decided to remain silent) and in scenario studies the predictors are measured *before* the decision is made. We believe that this is crucial in interpreting

the discrepancy between the correlates of intended and actual whistleblowing that Mesmer-Magnus and Viswesvaran (2005) described.

For some variables, the timing of measurement is not essential in interpretation. For example, demographics (sex, age, tenure, education etc.) and basic personality traits that are quite stable in adulthood are not likely to change substantially during the whistleblowing process. When whistleblowers are found to be extroverted and report that they perceive themselves to be domineering in interpersonal interaction, more so than non-reporters (Bjørkelo *et al.* 2010), is it reasonable to believe that these traits predispose individuals to be proactive in the face of wrongdoing. It is unlikely that going through a whistleblowing process would make someone not previously extroverted, extroverted or someone who perceives him- or herself as submissive, domineering in interpersonal interaction. It *is* however possible that the shape and composition of a person's 'normal profile' can stay the same but become elevated in stressful situations. Hypothetically, a person that has profile characterised by extraversion and interpersonal dominance can for instance develop a more *peaked* profile (i.e., higher scores on these two dimensions) if they have been exposed to retaliation after they reported wrongdoing at work. Although *some* studies have investigated the relationship between individual whistleblowing and validated measures of personality (see e.g., Bjørkelo, Ryberg, Matthiesen, & Einarsen, 2008), few if any have to our knowledge until now measured personality profiles with validated measures before and after a whistleblowing *and* a subsequent retaliatory process over time.

For other variables, the timing of measurement is essential in interpretation. For example, Mesmer-Magnus and Viswesvaran's meta-analysis suggests that threats of retaliation negatively impact on observers' intentions to blow the whistle, but that it is not related to actual whistleblowing. How can this be explained?

In Miceli and Near's (1984) study (which is included in the Mesmer-Magnus and Viswesvaran's meta-study), respondents were asked (1) how confident they were that they would not be retaliated against if they were to report illegal or wasteful activities and (2) how well the Federal Government protected employees who reported illegal or wasteful activities. The respondents were next asked to report (3) whether they had

observed and reported such activities in the last year. This resulted in a classification of the respondents into groups of non-observers, inactive observers, internal whistleblowers (internal reporting exclusively) and external whistleblowers (predominately combined internal and external reporting). These four groups differed in their perceptions of whether they would be retaliated against, with externals perceiving the highest risk of retaliation, followed by inactive observers, internals, and non-observers. Based on these findings, Miceli and Near (1984: 701) conclude that ‘whistle-blowers were not more likely to perceive that a retaliatory climate existed than were inactive observers’.

Does this mean that threat of retaliation does *not* influence actual whistleblowers’ decision to report? What the data *do* show is that peoples’ experiences of having observed (or not observed) and reported (or not reported) *in the past* influence their *present* estimates of likely retaliation for hypothetical reporting. This does not necessarily inform us of how perceived likelihood of retaliation *weighted in on* the whistleblowers’ and inactive observers’ decision at the time when they decided to report or not. This implies that it is premature to conclude that a threat of retaliation is only a predictor of intentions to blow the whistle and not of actual whistleblowing.

Similarly, Mesmer-Magnus and Viswesvaran (2005) found differences in the relationship between job satisfaction and intended and actual whistleblowing. Whereas job satisfaction was unrelated to intentions to report, it was positively correlated with actual reporting (intent $r = -0.01$; actual $r = 0.19$). This finding implies that people’s level of job satisfaction is not related to their evaluation of what they would do when faced with hypothetical wrongdoing. However, people who *have* blown the whistle (and remain with their organization) seem to be a bit more satisfied at work than those who did not blow the whistle. Because job satisfaction fluctuates in response to important events at work, these results are uninformative when it comes to understanding *how* a person’s level of job satisfaction at the time when wrongdoing was observed and prior to making the decision to report/not report actually influenced their decision. As these examples illustrate, some of the apparent inconsistencies in the correlates of intent to report and actual reporting may be due to methodological rather than substantive issues.

Factors Influencing the Predictive Validity of Intentions to Blow the Whistle

The second issue raised by Mesmer-Magnus and Viswesvaran (2005) is that very few studies have linked intentions to blow the whistle with actual reporting. Mesmer-Magnus and Viswesvaran (2005) report that they found only two studies that included both a measure of intended and actual whistleblowing. The observed mean of the correlation between whistleblowing intent and actual whistleblowing was 0.05. Does this signify that whistleblowing intentions are unrelated to actual reporting? The empirical data are at this point too sparse to draw definite conclusions, but as intentions tend to be good predictors of behavior (Fishbein and Ajzen 2010), we believe it would be wise to consider some of the factors that may lead to an underestimation of the relationship between whistleblowing intentions and behavior.

Although conceptually, researchers are interested in predicting future behavior from intentions, it is not uncommon that a measure of intention is administered along with a measure of current or past behavior (Fishbein and Ajzen 2010). For example, in a field study in a fast food restaurant setting, Victor *et al.* (1993) assessed an employee's intentions to report on peers who took or gave away an order of French fries, *and* at the same time asked respondents to indicate whether they had reported on this type of theft in the past year. This was one of the studies included in Mesmer-Magnus and Viswesvaran' (2005) analysis. The observed correlation between intentions to report and past reporting was $r = .18$ ($p < .05$). Aside from the possibility that this correlation may be attenuated due to the categorical nature of the whistleblowing variable, it is also possible that some of the respondents had experienced retaliation after previous reporting and thus would be less willing to report peer theft in the future. In fact, Zhang *et al.* (2009) found, in a scenario study among bank employees, that those with previous personal experience with whistleblowing tended to have lower scores ($r = -.20$) on (hypothetical) intentions to report afterwards. We have not been able to locate any studies that have looked at the relationship between intentions to report (whether hypothetical or actual intentions) and *subsequent* actual reporting.

It is also important to consider differences between hypothetical and real situations (Fishbein and Ajzen 2010). Other cognitions (e.g., risk assessments) and emotions

(e.g., fear, doubt) may become psychologically salient in real situations and change the intentions a person formed when contemplating a hypothetical situation. Being asked about one's general intentions to report wrongdoing, for instance, 'If you found wrongdoing in your workplace, how hard would you try to [report to different recipients]?' (Park and Blenkinsopp 2009: 549) is therefore likely less predictive of people's actual reporting at a later time, than intentions formed when one has actually observed wrongdoing and consider reporting in real life. For instance MacNab and colleagues (2007:23) argue that studies on whistleblowing intent not are assumed to evoke 'the type of real-world pressure faced by someone in an actual situation'.

Intentions may also change over time, and temporally unstable intentions are less likely to predict behavior (Fishbein and Ajzen 2010). At this point, the stability of observers' intentions to report from when the initial intentions are formed to when the act of blowing the whistle is performed or the decision to remain silent is made is not known. These factors pose a challenge in terms of deciding on an optimal time lag between the measurement of intentions to report and actual reporting. On the one hand, one could expect intentions to remain fairly stable over weeks or months after the decision to blow the whistle is made if the observer is determined to report the wrongdoing and is just waiting for the right time and opportunity. On the other hand, one could argue that intentions to blow the whistle are likely to be unstable and change quickly in response to certain situations and external events (e.g., threat of retaliation and job loss). A decision making process predominantly characterised as a 'choice-less choice' and a feeling of being 'compelled to act' has for instance previously been described by Alford (2001, 2007). It seems clear that the intended-actual whistleblowing relationship is under-investigated in whistleblowing research and the research that exists is likely to underestimate the relationship due to the timing of measurement (i.e., measuring intentions after reporting). In addition to an increased focus on methodological issues when trying to integrate research on whistleblowing intentions and behavior, we would like to propose that the reasoned action approach (Fishbein and Ajzen 2010) can serve as a useful integrative framework. The reasoned action approach has a long history from Fishbein's expectancy-value model, to the theory of reasoned action and the theory of planned behaviour. We focus on Fishbein

and Ajzen's most recent conceptualization as described in their 2010 book *Predicting and Changing Behavior: The Reasoned Action Approach*.

The Reasoned Action Approach

The central idea in the reasoned action approach is that human social behavior can be predicted by a set of core factors, namely attitudes, perceived norms, perceived and actual behavioral control, and intentions (for a model and illustration of the theory see instance³). *Attitudes* have their basis in behavioral beliefs, which are beliefs about the positive or negative consequences (i.e., costs and benefits) of performing the behavior in question. An attitude towards a specific behavior is the person's positive or negative evaluation of *personally* performing the behavior. *Perceived norms* have their basis in normative beliefs, which are people's beliefs about whether individuals or groups who are important to them (i.e., *referents*) would approve of their performing the behavior and whether these referents (would) perform the behavior themselves. Together, these normative beliefs create a perception of the normative pressures to perform or not perform the behavior in question. A person's *perceived behavioral control* finds its basis in control beliefs, which are beliefs about factors in the environment or personal factors that can help or impede performance of the behavior.

Together, a person's attitude towards a specific behavior, perceived norms regarding the behavior, and perceived control over the behavior inform the person's *intention* or readiness to perform the behavior (for an illustration of the model, see for instance⁴). Actual performance of the behavior becomes more likely as the intention to perform it becomes stronger. However, this hinges on the condition that the person's perceived behavioral control accurately reflects his/her *actual control* (i.e., relevant skills and abilities, barriers and facilitating factors) over the behavior. Actual behavioral control therefore moderates the relationship between intentions and behavior. When perceived behavioral control matches actual behavioral control it also acts as a moderator between intentions and behavior (Fishbein and Ajzen 2010). In addition to these core components, a host of background factors can be incorporated into a reasoned action model to explain individual and contextual origins of the different beliefs underlying the behavior.

Interpretation of Whistleblowing Studies within the Reasoned Action Approach

The model of whistleblowing as prosocial organizational behavior proposes that when someone has identified an activity as wrongful (phase 1), experiences that it is not being corrected (phase 2), and decides that they have a responsibility to report and that whistleblowing is an available option (phase 3), the person weights the potential cost and benefits of blowing the whistle as well as other options for action (see Miceli *et al.* 2008: 38 for an illustration of the model). It is primarily in this final stage of decision-making that the processes described by the reasoned action approach take place.

Some researchers have already employed a version of the reasoned action approach in the study of whistleblowing (Ellis and Arieli, 1999; Oh and Teo 2010; Park and Blenkinsopp 2009). In a questionnaire study among South Korean police officers, Park and Blenkinsopp (2009) asked their respondents to indicate their (hypothetical) intentions to blow the whistle internally and externally if they were to observe wrongdoing at work. General attitudes to whistleblowing and subjective norms correlated with intentions to report both internally ($r = .37$ and $r = .42$, respectively), and externally ($r = .25$ and $r = .33$, respectively), and perceived behavioral control predicted intentions to report internally ($r = .28$).

Similarly, Ellis and Arieli (1999) asked general officers in the Israeli Defence Forces to report their (hypothetical) intentions to blow the whistle in three different scenarios and measured their general attitudes and subjective norms regarding reporting. They found that attitudes and norms correlated with intentions to report across scenarios ($r = .47$ to $.64$ and $r = .48$ to $.58$, respectively), but norms were the stronger predictor of intentions. What these studies demonstrate is that the reasoned action approach can be applied to intended whistleblowing. However, because they were focused on hypothetical scenarios they did not include a behavioral component (i.e., actual whistleblowing). This is a valuable point of entrance for future research. In the following section we will describe the core constructs in the reasonedaction approach in more detail and outline how existing whistleblowing research that did not have this theoretical starting point can be interpreted in light of the reasoned action model.

Behavioral Beliefs and Attitudes to Whistleblowing

An attitude to an object is determined by the strength of beliefs that the object has certain attributes and the positive/negative evaluation of those attributes (Fishbein and Ajzen 2010). In our context the object is the behavior of blowing the whistle, and the attributes can be, for example, ethicality ('whistleblowing is the right thing to do'), expected efficacy ('whistleblowing will terminate the wrongdoing'), and potential for retaliation ('whistleblowing is punished'). Beliefs regarding these and other attributes of whistleblowing may be held with varying strength. An observer of wrongdoing may strongly believe that blowing the whistle is the ethically right thing to do, but be less certain in her belief that it will be effective. Moreover, each attribute may be evaluated differently; stopping wrongdoing may have a strong positive evaluation, and being retaliated against a strong negative evaluation. This means that two observers of wrongdoing may hold an equally favorable attitude to reporting, but for different reasons.

Some of the predictors included in prior whistleblowing research constitute behavioral beliefs. For example, Chiu (2003) focused on the belief that whistleblowing is ethical. Others have included beliefs such as likelihood of protection from retaliation (Miceli and Near 1984), anticipated regret associated with whistleblowing versus remaining silent (Fredin 2011), and beliefs that reporting ethical concerns (whistleblowing) would result in being seen as a troublemaker and snitch (Stansbury and Victor 2009).

In research where the reasoned action approach has been employed, a wider set of behavioral beliefs have been investigated. Ellis and Arieli (1999) listed between 15 and 21 behavioral outcomes for each of their scenarios. The beliefs were centered around organizational revenge or positive responses (e.g., 'My report will stand out as an educational example' and 'My periodical evaluation will be hurt'), the negative or positive influence of reporting on the opinions of others ('My status with my commanders will rise' and 'The brigade's soldiers and commanders will plot against me'), and positive and negative implications directly related to the job (e.g., 'The armoured military vehicle will be serviced according to its running time'). Similarly, Park and Blenkinsopp (2009) included behavioral beliefs such as that whistleblowing prevents harm to the organization and can lead to control of corruption.

Thus, organizational members tend to hold both positive and negative beliefs about reporting organizational wrongdoing. This could be a contributing factor to the rather weak relationships between separate behavioral beliefs and actual whistleblowing (Mesmer-Magnus and Viswesvaran 2005; Miceli and Near 1984; Stansbury and Victor 2009). We propose that, in accordance with the reasoned action approach, the combination of *salient* beliefs regarding whistleblowing will be a better predictor of attitudes to whistleblowing, and subsequently intentions to blow the whistle and actual reporting, than *single* beliefs. This is consistent with the idea put forth by Miceli *et al.* (2008), that the final step in the decision-making process leading up to whistleblowing is an evaluation of the ratio of benefits versus costs of reporting and which also is described in actual whistleblowing cases (see e.g., Bjørkelo, 2010).

Normative Beliefs and Perceived Norms

Beyond beliefs about the pros and cons of blowing the whistle, an observer of organizational wrongdoing will also have normative beliefs pertaining to whistleblowing. In the reasoned action framework, norms are the ‘perceived social pressure to perform (or not perform) a given behavior’ (Fishbein and Ajzen 2010: 130). More specifically, there are two types of perceived norms: perceptions of what important others think one should do (injunctive norms) and perceptions of what others actually do (descriptive norms). Injunctive normative beliefs pertaining to whistleblowing can be based on what other organizational members such as colleagues and supervisors would expect (e.g., ‘My boss would expect me to report this’) whereas descriptive normative beliefs can be based on what similar others do (e.g., ‘I know that my colleagues have reported previously in similar situations’). Beyond giving information about what others do, descriptive norms inform us what is likely to be an effective and adaptive action. Referring to work by Cialdini, Fishbein and Ajzen (2010: 132) state that:

‘[I]n addition to the direct effect of descriptive norms on intentions described earlier, descriptive norms can also have indirect effects. We often have information about the behavior of others that goes beyond simply registering what they are doing. First, we may note that their behavior is rewarded or punished by others, and this information can influence attitudes toward the behavior as well as lead to the inference that the

behavior is prescribed or proscribed (injunctive norm). Second, we may learn that the behavior leads to other positive or negative outcomes, again affecting attitudes, and third, we may learn that certain resources are required and certain barriers have to be overcome to perform the behavior. The latter would influence perceptions of behavioral control’.

The normative perspective has been included in existing whistleblowing research mainly by the focus on organizational climate for whistleblowing which has been found to be related to both whistleblowing intentions and actual reporting (Mesmer-Magnus and Viswesvaran 2005). Rothwell and Baldwin (2007) looked at whistleblowing in the police, ethical climate and five forms of misconduct. Team climate was measured with Victor and Cullen’s (1988) typology of ethical climates and consists of ‘self-interest, company profit or efficiency, friendship or team interest, social responsibility, personal morality, rules or standard operating procedures, and law and professional code’ (Rothwell and Baldwin 2007: 343). The results indicated that a friendship or team climate (a type of perceived norms) generally explained the willingness to report wrongdoing at work, but not actual whistleblowing frequency.

In a study of 6000 workers, Trygstad (2010) found that organizational climate influences whether employees dare to report wrongdoing at work and experience protection against retaliation. Thus, whistleblowing is ‘not purely an individual-level phenomenon’ but depends on the level of ethical culture at the workplace (Zhang *et al.* 2009: 643). A healthy organizational culture is also found to be associated with a greater *willingness* to report wrongdoing at work (Kaptein 2011). Thus, in relation to the reasoned action approach, we would propose that organizational cultures or climates are background factors that influence employees’ perceived norms regarding whistleblowing.

Control Beliefs and Perceived Behavioral Control

Similar to the way behavioral beliefs inform attitudes to whistleblowing, beliefs about internal and external factors that may help or hinder performance of a behavior inform a person’s perceived control over the behavior. Control beliefs may be based on previous personal experiences, second-hand information (e.g., observations of co-workers’ experiences) as well as other factors that influence one’s perceived ability to

perform the behavior. More specifically, perceived behavioral control is a function of the strength of salient beliefs about control factors combined with the perceived power of each factor in helping or impeding performance (Fishbein and Ajzen 2010). For example, an observer of wrongdoing may believe that information about the correct procedure for internal reporting is readily available to him, and that this makes reporting somewhat easier. At the same time, he may be convinced that blowing the whistle requires him to present the evidence in an assertive manner and that this makes reporting difficult. Descriptions of actual whistleblowing cases have shown that the existence and awareness of reporting procedures is not necessarily associated with an effective whistleblowing (e.g., that wrongdoing is stopped) or whistleblower protection (see e.g., Monsen 2008).

Various variables have been included that measure characteristics thought to reflect control or power in the whistleblowing situation, such as tenure, age, job level, pay grade and supervisor status (Miceli *et al.* 2008; Skivenes and Trygstad 2010). When relationships between these variables and intended or actual whistleblowing are found to be significant, they suggest that whistleblowers are more powerful than those who did not blow the whistle (Miceli *et al.* 2008). For example, Mesmer-Magnus and Viswesvaran (2005) found that job level was positively related to both intended and actual whistleblowing. These findings are replicated in recent research: Bjørkelo and colleagues found that respondents holding a leadership position or who were union or Health, Safety and Environment (HSE) representatives were more likely to report wrongdoing at work (Bjørkelo *et al.* 2011). Similarly, Rothwell and Baldwin (2007) found that supervisory status was a consistent predictor of both willingness and frequency of whistleblowing. With respect to age and tenure, Stansbury and Victor (2009) found that young and short-tenured employees were less likely to have blown the whistle. From a reasoned action perspective this makes sense, because employees' job level and similar variables should be related to their control beliefs as well as reflect their actual behavioral control.

Also, many of the personality or individual difference variables investigated in prior whistleblowing research are related to control, such as internal locus of control, self-esteem, proactive personality, extrovert character and interpersonal dominance (Bjørkelo *et al.* 2010; Miceli *et al.* 2008; Miceli *et al.* 2012). There is evidence that

whistleblowers are more extroverted, dominant and disposed to be proactive than their non-whistleblowing colleagues (Bjørkelo *et al.*, 2010; Miceli *et al.* 2012). What is interesting to note is that in the study by Miceli and colleagues (2012), a more direct measure of perceived control in the whistleblowing situation (perceived leverage in the situation) was a stronger predictor of actual whistleblowing (odds ratio 2.34, 95%CI=[1.89, 2.90]) than the dispositional variable of proactive personality (odds ratio 1.43, 95%CI=[1.18, 1.74]). Interpreted in light of the reasoned action framework, this could suggest that *dispositional* aspects of control (e.g., proactive personality) can be thought of as distal background factors influencing employees' control beliefs and perceived behavioral control in the specific whistleblowing situation, which in turn are more *proximal* antecedents of actual whistleblowing. The same argument can be applied to power-related demographical variables.

Future Directions

Ideally, the methods used for providing knowledge should depend on the research aims. In this way, aims of study would determine whether to study intended or actual whistleblowing. Studies of factors that influence intentions (through attitudes, norms, control and underlying beliefs) are informative. However, when the situation changes, so do attitudes and norms. It is therefore important to include attitudinal, normative, and control variables along with intent, actual, contextual and other individual difference variables.

An ideal design would be to survey a very large sample of employees and identify those who are witnessing (or have recently witnessed) wrongdoing at work, but have not yet decided whether or not to act. These observers could be asked to indicate their attitudes towards reporting the wrongdoing, their subjective norms regarding reporting, perceived control over reporting, and intentions to report. After a period of time, the observers would be surveyed again at one or more occasions to assess actual whistleblowing. It is commonly argued that it is extremely difficult to collect longitudinal data from the same set of individuals on whistleblowing because of issues related to anonymity (Mesmer-Magnus and Viswesvaran 2005; Miceli *et al.* 2008). We agree that it is difficult; however, it is not impossible.

The Bergen Bullying Research Group at the University of Bergen, Norway⁵, has conducted a three-wave longitudinal survey that included questions about whistleblowing along with other sensitive topics such as bullying, workplace conflict, sexual harassment and health (Berthelsen *et al.* 2008). The data collection was managed by Statistics Norway, the Norwegian National Bureau of Statistics. Statistics Norway has access to all inhabitants' personal identification numbers (NO), which correspond to peoples' national insurance number (UK) or social security number (US). The respondents were informed that 1) the survey was performed in accordance with Norwegian laws and regulations, 2) Statistics Norway was subjected to the control of the Norwegian Data Protection Authority as well as their own Ombudsman for the protection of privacy in research, 3) the survey was approved by the Regional Ethics Committee for research, 4) it would not be known outside Statistics Norway what individuals had responded to the survey and that staff at Statistics Norway were bound by legal confidentiality, 5) the researchers would receive anonymous data, and 6) the identifying information would be completely deleted after the final wave. The response rate was 56.4 % in the first wave and 70.0 % per cent in the second wave (Berthelsen *et al.* 2008; Nielsen *et al.* 2012) . A third wave has also been conducted but has not been described in a public report yet (personal communication, S. Einarsen September 2012). These numbers suggest that it is not unlikely that participants in some situations and nations will be willing to respond even when the topic is sensitive and remaining completely anonymous not is possible. In order to conduct such a research design anonymity is crucial, particularly when responses need to be matched across time. This can be solved with a unique respondent-generated code. Further, there are available guidelines for constructing questionnaires to measure the components of the reasoned action approach.

Conclusions

One of the main recommendations from the 1996 review of the whistleblowing field was the importance of 'scholars in all fields to acknowledge the existence of the whistle-blowing myths and the misinformation that perpetuates them, as well as opportunities for interdisciplinary cooperation in investigating the whistle-blowing

phenomenon' (Near and Miceli 1996: 523). We would also like to draw attention to the recommendation from the 2005 review by Mesmer-Magnus and Viswesvaran (: 295): 'to advance our understanding of this field, we need to explore and enumerate the processes that occur between the time wrongdoing is witnessed and when actual whistleblowing occurs'. We would like to join in on these recommendations and expand the focus to the way whistleblowing is investigated globally. Developing measures that can be applied across countries is one important task for future research, as it will allow for comparisons across cultural contexts and ease interpretation of findings. Furthermore, research on intended and actual whistleblowing needs to be integrated in order to understand when and how intentions to report wrongdoing turns into whistleblowing (action). As argued throughout the present chapter, one way to do it is by applying the theoretical framework of reasoned action. This framework specifically addresses the link between intent and actual behavior and has documented well the predictive effect of intentions on behavior (Augoustinos and Walker 1999). A reasoned action approach can also serve to integrate our understanding of more distal antecedents of whistleblowing, such as organizational climates and individual differences, into a coherent theoretical framework.

References

- Alford, C. F. (2001). *Whistleblowers: Broken lives and organizational power*. Ithaca, N.Y.: Cornell University Press.
- Alford, C. F. (2007). Whistle-blower narratives: The experience of choiceless choice. *Social Research*, 74(1), 223-248.
- Anderson, R.M., R. Perucci, D. Schendel and L. Trachtman. 1980. *Divided Loyalties: Whistleblowing at BART*. West Lafayette, IN: Purdue University Press.
- Augoustinos, M. and I. Walker. 1999. *Social Cognition: An Integrated introduction*. London: Sage.
- Berthelsen, M., A. Skogstad, L.J. Hauge, M.B. Nielsen and S. Einarsen. 2008. *Mobbing og utstøting i arbeidslivet: Resultater fra en landsrepresentativ og longitudinell undersøkelse [Bullying and exclusion from working life: Results from a national representative and longitudinal study]*. Bergen: Universitetet i Bergen.
- Bjørkelo, B. 2010. *Whistleblowing at Work: Antecedents and Consequences*. PhD, University of Bergen.
- Bjørkelo, B., S. Einarsen, M. Nielsen and S. Matthiesen. 2011. 'Silence is golden? Characteristics and experiences of self-reported whistleblowers.' *European Journal of Work and Organizational Psychology*, 20(2): 206–238.
- Bjørkelo, B., S.B. Matthiesen and S. Einarsen. 2010. 'Predicting proactive behaviour at work: Exploring the role of personality as an antecedent of whistleblowing behaviour.' *Journal of Occupational and Organizational Psychology*, June, 83(2): 371–394.
- Bjørkelo, B., Ryberg, W., Matthiesen, S. B., & Einarsen, S. (2008). "When you talk and talk and nobody listens": A mixed method case study of whistleblowing and its consequences *International Journal of Organisational Behaviour*, 13(2), 18-40.
- Bok, S. 1981. 'Blowing the whistle.' In J.L. Fleishman, L.Liebman and M.H. Moore (eds), *Public Duties: The Moral Obligations of Government Officials*. Cambridge: Harvard University Press, 204–220.
- Brabeck, M. 1984. 'Ethical characteristics of whistle blowers.' *Journal of Research in Personality*, March, 18(1):41–53.

- Chiu, R.K. 2003. 'Ethical judgment and whistleblowing intention: Examining the moderating role of locus of control.' *Journal of Business Ethics*, March, 43(1-2): 65-74.
- Ellis, S. and S. Arieli. 1999. 'Predicting intentions to report administrative and disciplinary infractions: Applying the reasoned action model.' *Human Relations*, July, 52(7): 947-967.
- Fishbein, M. and Ajzen, I. 2010. *Predicting and Changing Behavior: The Reasoned Action Approach*. New York: Psychology Press.
- Fredin, Amy J. 2011. 'The effects of anticipated regret on the whistleblowing decision.' *Ethics & Behavior*, 21(5): 404-427.
- Jubb, P.B. 1999. 'Whistleblowing: A restrictive definition and interpretation.' *Journal of Business Ethics*, August, 21(1): 77-94.
- Kaptein, M. 2011. 'From inaction to external whistleblowing: The influence of the ethical culture of organizations on employee responses to observed wrongdoing.' *Journal of Business Ethics*, February, 98(3): 513-530.
- Keenan, J.P. 1990. 'Upper-level managers and whistleblowing: Determinants of perceptions of company encouragement and information about where to blow the whistle.' *Journal of Business and Psychology*, winter, 5(2): 223-235.
- Keenan, J.P. 1995. 'Whistleblowing and the first-level manager: Determinants of feeling obliged to blow the whistle.' *Journal of Social Behavior and Personality*, September, 10(3): 571-584.
- Keenan, J.P. 2000. 'Blowing the whistle on less serious forms of fraud: A study of executives and managers.' *Employee Responsibilities and Rights Journal*, December, 12(4): 199-217.
- Liyanarachchi, G.A. and R. Adler. 2011. 'Accountants' whistle-blowing intentions: The impact of retaliation, age, and gender.' *Australian Accounting Review*, June, 21(2): 167-182.
- Maas, P. 1973. *Serpico*: London: Bantam Books.
- MacNab, B., MacLean, J., Brislin, R., Aguilera, G. M., Worthley, R., Ravlin, E., . . . Turcotte, M. F. (2007). Culture and ethics management: Whistle-blowing and internal reporting within a NAFTA country context. *International Journal of Cross Cultural Management*, 7(1), 5-28.

- Mesmer-Magnus, J. and C. Viswesvaran. 2005. 'Whistleblowing in organizations: An examination of the correlates of whistleblowing intentions, actions, and retaliation.' *Journal of Business Ethics*, December, 62(3): 277–297.
- Miceli, M.P., J.B. Dozier and J.P. Near. 1991. 'Blowing the whistle on data fudging: A controlled field experiment.' *Journal of Applied Social Psychology*, February, 21(4): 271–295.
- Miceli, M.P. and J.P. Near. 1984. 'The relationships among beliefs, organizational position, and whistle-blowing status: A discriminant analysis.' *Academy of Management Journal*, December, 27(4): 687–705.
- Miceli, M.P. and J.P. Near. 1989. 'The incidence of wrongdoing, whistle-blowing, an retaliation: Results of a naturally occurring field experiment.' *Employee Responsibilities and Rights Journal*, June, 2(2): 91–108.
- Miceli, M.P., J.P. Near and T.M. Dworkin. 2008. *Whistle-Blowing in Organizations*. New York: Routledge.
- Miceli, M.P., J.P. Near, M.T. Rehg and J.R. Van Scotter. 2012. 'Predicting employee reactions to perceived organizational wrongdoing: Demoralization, justice, proactive personality, and whistle-blowing.' *Human Relations*, August, 65(8): 923–954.
- Marnburg, E. (2001). The questionable use of moral development theory in studies of business ethics: Discussion and empirical findings. *Journal of Business Ethics*, 32(4), 275-283.
- Monsen, P.-Y. 2008. *Muldvarp i Siemens. En dokumentar [Mole in Siemens. A whistleblowers story]*. Oslo: Spartacus.
- Nader, R., K. Blackwell and P.J. Petkas. 1972. *Whistle Blowing: The Report of the Conference on Professional Responsibility*. New York: Grossman.
- Near, J.P. and M.P. Miceli. 1985. 'Organizational dissidence: The case of whistleblowing.' *Journal of Business Ethics*, February, 4(1): 1–16.
- Near, J.P. and M.P. Miceli. 1996. 'Whistle-blowing: Myth and reality.' *Journal of Management*, 22(3): 507–526.
- Near, J.P. and M.P. Miceli. 2008. 'Wrongdoing, whistle-blowing, and retaliation in the U.S. government: What have researchers learned from the Merit Protection Board

- (MSPB) survey results?’ *Review of Public Personnel Administration*, September, 28(3): 263–281.
- Nielsen, M. B., Hetland, J., Matthiesen, S. B. and Einasren, S. 2012, ‘Longitudinal relationships between workplace bullying and psychological distress. *Scandinavian Journal of Work, Environment & Health*, 38 (1): 38-46.
- Oh, L.B. and H.H. Teo. 2010. ‘To blow or not to blow: An experimental study on the intention to whistleblow on software piracy.’ *Journal of Organizational Computing and Electronic Commerce*, 20(4): 347–369.
- Park, H. and J. Blenkinsopp. 2009. ‘Whistleblowing as planned behavior—A survey of South Korean police officers.’ *Journal of Business Ethics*, April, 85(4): 545–556.
- Park, H., M.T. Rehg and D. Lee. 2005. ‘The influence of Confucian ethics and collectivism on whistleblowing intentions: A study of South Korean public employees.’ *Journal of Business Ethics*, June, 58(4): 387–403.
- Parmerlee, M.A., P.J. Near and T.C. Jensen. 1982. ‘Correlates of whistle-blowers perceptions of organizational retaliation.’ *Administrative Science Quarterly*, March, 27(1): 17–34.
- Peters, C. and T. Branch. 1972. *Blowing the Whistle: Dissent in the Public Interest*. New York: Praeger publishers.
- Rest, J.R., D. Narvaez, S.J. Thoma and M.J. Bebeau. 2000. ‘A neo-Kohlbergian approach to morality research.’ *Journal of Moral Education*, 29(4): 381–395.
- Rest, J.R., S.J. Thoma, D. Narvaez and M.J. Bebeau. 1997. ‘Alchemy and beyond: Indexing the defining issues test.’ *Journal of Educational Psychology*, September, 89(3): 498–507.
- Rothwell, G.R. and J.N. Baldwin. 2007. ‘Ethical climate theory, whistle-blowing, and the code of silence in police agencies in the state of Georgia.’ *Journal of Business Ethics*, February, 70(4): 341–361.
- Ryan, A.M., D. Chan, R.E. Ployhart and L.A. Slade. 1999. ‘Employee attitude surveys in a multinational organization: Considering language and culture in assessing measurement equivalence.’ *Personnel Psychology*, March, 52(1): 37–58.
- Skivenes, M. and S.C. Trygstad. 2010. ‘When whistle-blowing works: The Norwegian case.’ *Human Relations*, July, 63(7): 1071–1097.

- Stansbury, J.M. and B. Victor. 2009. 'Whistle-blowing among young employees: A life-course perspective.' *Journal of Business Ethics*, March, 85(3): 281–299.
- Trygstad, S.C. 2010. *Med rett til å varsle: - men hjelper det, og er det lurt? [With licence to blow the whistle: But does it help and is it wise?]*. Oslo: Fafo.
- Victor, B. and J.B. Cullen. 1988. 'The organizational bases of ethical work climates.' *Administrative Science Quarterly*, March, 33(1): 101–125.
- Victor, B., L.K. Trevino and C. L. Shapiro. 1993. 'Peer reporting of unethical behavior: The influence of justice evaluations and social context factors.' *Journal of Business Ethics*, April, 12(4): 253–263.
- Vinten, G. 1994. *Whistleblowing: Subversion or Corporate Citizenship*. London: Paul Chapman.
- Zhang, J., R. Chiu and L.Q. Wei. 2009. 'On whistleblowing judgment and intention: The roles of positive mood and organizational ethical culture.' *Journal of Managerial Psychology*, 24(7–8): 627–649.

Endnotes

¹ The DIT was developed by Rest based on the work by Kohlberg on moral reasoning (Rest *et al.* 2000). The aim of the DIT is to understand and predict moral behavior (Marnburg 2001). The regular version of the DIT consists of six ethical dilemmas that are followed by 12 items that represent issues that can be considered in the decision-making process (Rest *et al.* 1997). The participant is then asked to rate 'each item in terms of how important it is, and then rank the most important items (the top four ranks)' (Rest *et al.* 1997: 500).

² <https://whistleblowingsurvey.org>.

³ <http://people.umass.edu/aizen/tpb.diag.html>

⁴ <http://people.umass.edu/aizen/tpb.diag.html>

⁵ <http://www.uib.no/rg/bbrg/>