



Laddered Motivations of External Whistleblowers: The Truth About Attributes, Consequences, and Values

Heungsik Park¹ · Wim Vandekerckhove² · Jaeil Lee¹ · Joowon Jeong³

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Abstract

The purpose of this study was to explore the motivational structures of external whistleblowers involved in the decision to blow the whistle by applying MEC theory and the laddering technique. Using both soft and hard laddering methods, data were collected from 37 Korean external whistleblowers. Results revealed that the means-end chain of external whistleblowers was the hierarchical linkage among two concrete attributes (the power of external whistleblowing to make changes and its warning about the seriousness of wrongdoing to the public), two functional consequences (correcting a wrongdoing and making those who violated laws admit their offenses), and one terminal value (the truth). The extant whistleblowing literature has either made assumptions about whistleblowers' motivations when developing models or has drawn indirect inferences from measures of other variables. Our study is the first with an explicit and empirical focus on whistleblowers' motivations. The findings provide evidence of the motivational structures of external whistleblowers that consist of a set of complex paths linked by multi-layered motivators. This research will be helpful in designing and reviewing whistleblowing programs for organizations, regulatory agencies, and journalists.

Keywords External whistleblowers · Motivation · Means-end chain theory

Introduction

Understanding whistleblowers' motivators is of critical importance in terms of the theoretical and managerial implications. Most existing research has focused on investigating the individual factors that trigger the decision to blow the whistle: morality (Bouville 2008; Street 1995), justice (Miceli et al. 2012), public interest (Gobert and Punch

2000), loyalty (Westin 1980; Larmer 1992), fairness (Seifert et al. 2010; Waytz et al. 2013), and the seriousness of the wrongdoing (Ayers and Kaplan 2005; Miceli et al. 1991). However, triggers are not motivations; motivation denotes the direction of the reaction to the trigger (Roberts 2014). This direction comprises the attributes of whistleblowing (aspects or characteristics of the action taken to cope with a problem), consequences (expected outcomes of the action), and values (individual's principles as an internal reference for what is important).

Based on the view that whistleblowing is the result of a complex combination of various factors or multiple decisions, some researchers have applied theories or models to explain the motivations of those who are willing to blow the whistle. However, these studies are either conceptual or normative (Bouville 2008; Gobert and Punch 2000; Larmer 1992), make reductive assumptions about motivation in terms of 'altruism' or 'cost-benefit analysis' in order to build models (Dozier and Miceli 1985; Gundlach et al. 2003; Miceli et al. 2012; Seifert et al. 2010), or provide indirect inferences about motivation from studying whistleblower identity (Weiskopf and Tobias-Miersch 2016) or whistleblowing dilemma (Waytz et al. 2013). While whistleblowers'

✉ Wim Vandekerckhove
w.vandekerckhove@gre.ac.uk

Heungsik Park
hspark@cau.ac.kr

Jaeil Lee
misshanyang@naver.com

Joowon Jeong
jjeong6@student.gsu.edu

¹ Department of Public Service, Chung-Ang University, 84 Heukseok-Ro, Dongjak-Gu, Seoul 06974, South Korea

² Business School, Work and Employment Relations Unit, University of Greenwich, London, UK

³ Andrew Young School of Policy Studies, Georgia State University, 33 Gilmer Street SE, Atlanta, GA 30303, USA

motivations remain a topical issue in debates around whistleblowing legislation and policies (Braithwaite 2013; Stakeleather 2016; Yeoh 2014), there remains a lack of empirical knowledge about the complexity and interactions of different aspects of what motivates people to blow the whistle. This study provides such knowledge from inductive research with an explicit focus on motivations of external whistleblowers. We used interview and survey data from 37 Korean whistleblowers to analyze different aspects of their motivations, using means-end chain (MEC) theory.

The purpose of this study was to explore the motivational structures of external whistleblowers involved in the decision to blow the whistle, in a more explicit, direct, and integrative way than previous research. Doing so makes both theoretical as well as practical contributions. Theoretically, we know of no other research that takes whistleblowers' motivations explicitly as its research object. Vandekerckhove (2006) finds that in the many definitions of whistleblowing, motivation is an implicit rather than an explicit factor. For example, Near and Miceli's (1985) standard definition of whistleblowing (cf. Brown et al. 2014) is based on a pro-social behavior model, and suggests whistleblowers do what they do "to effect action" (p. 4). Roberts (2014, p. 208) writes that this model "focuses upon the impact of the whistleblowing action rather than motivation." Hence, if we rely on the most widely used definition of whistleblowing for our knowledge about whistleblowers' motivations, we reduce motivation to *consequences*. Roberts further asserts (referring to Miceli et al. 2008) that "behavior does not have to be altruistic to be considered pro-social" (Roberts 2014, p. 208) and concludes that "[for] researchers, it is a daunting task to separate out the messy contextual issues that bear upon identifying the motivations for whistleblowing" (Roberts 2014, p. 228). Altruism and self-interest frequently overlap, e.g., disclosures about unsafe working conditions (Miceli et al. 2008) or whistleblowing about sexual harassment or bullying (Roberts 2014). Hence, the extant whistleblowing literature conflates motivation with juxtaposing categories of values.

We further submit here that one's motivation to blow the whistle externally cannot be reduced to—yet is affected by—what the individual believes are salient aspects or characteristics of what they are doing (attributes), e.g., discharging one's duty, warning the public, getting a concern investigated, get someone to correct a wrong. Our present study provides theoretical insight into how attributes, consequences, and values interact to form the motivational structure of whistleblowing. As such, this integrated approach constitutes our theoretical contribution to the whistleblowing literature. To this end we used means-end chain (MEC) theory, originally developed to uncover a hierarchically interconnected structure of motives that drive consumers to purchase a product or service (Gutman 1982, 1997;

Reynolds and Gutman 1988). The theory explains consumers' motivations to purchase through the hierarchical means-end relationships of attributes (A), consequences (C), and values (V), called means-end chains. Attributes at the lowest level are linked to the values as desired goals at the highest level through the consequences (Pieters et al. 1995). Since the 1980s, the theory has been extensively applied with success to analyze the motivational structures for decision making in various areas such as organic food (Zanoli and Naspetti 2002), shopping (Wagner 2007), residential development (Lundgren and Lic 2010), internet banking (Kuisma et al. 2007), and private equity financing (Morandin et al. 2006). The laddering technique is a main approach to elicit the means-end chains used to achieve a goal (Gutman 1997; Pieters et al. 1995). Researchers (e.g., Kuisma et al. 2007; Wagner 2007) have suggested that MEC theory and the laddering technique are particularly useful for discovering the underlying motivational structure behind human behaviors. Given that whistleblowing is a behavior intended to achieve a specific purpose, MEC theory can be a research framework to analyze the motivation behind the decision to blow the whistle. Previous whistleblowing literature has considered attributes, consequences, and values separately, in either conceptual or normative papers, thereby making selective assumptions to develop a model. By using MEC theory, this paper contributes to the literature by providing insight into how attributes, consequences, and values interact. More precisely, our study finds that the motivation of external whistleblowers consists of a set of complex and multi-layered motivators. A whistleblower's motivation can be one of a limited number of combinations between attitudes, consequences, and values.

From a practical point of view, we believe the current study can make an important contribution to policy debates in Europe and elsewhere by demonstrating the hierarchical linkages among the preferred attributes of external whistleblowing, desired consequences, and end states (values). For example, while in the UK whistleblowing legislation was amended in 2013 replacing a 'good faith test' with the requirement that the whistleblower held a reasonable belief the disclosure was in the public interest, legislation passed in 2017 in France requires whistleblowers to act in 'good faith.' Furthermore, while NGOs like Transparency International and Whistleblowing International Network (WIN) lobby the European Commission for a Directive on whistleblower protection that does not put a whistleblower's motivation as a condition for protection, the cases brought before the European Court of Human Rights (which the European Commission cannot simply put aside when legislating) have consistently mentioned motivation of the whistleblower in its rulings. Finally, financial reward schemes for whistleblowers remain at the same time appealing and contested with regulators such as the FCA in the UK frequently reviewing

their position on this. This study contributes to a deeper understanding of external whistleblowers' motivational structures by exploring the means-end chains that external whistleblowers consider in their disclosure of wrongdoing. The results of this study, which demonstrates the hierarchical linkages among the preferred attributes of external whistleblowing, desired consequences and end state, provide insights into how to design, implement, and review whistleblowing schemes for workers who report wrongdoing observed in their workplace.

Three questions were addressed in this study: what are the underlying attributes, consequences, and values of external whistleblowers when they blow the whistle? What motivational chains of A, C, and V play a dominant role in the decision to blow the whistle? And how are the three types of cognitive elements interlinked in the whistleblowers' means-end chains that connect their values to the decision to blow the whistle? The paper proceeds as follows. The next section provides a literature review of notions of motivation in the whistleblowing literature. We also include in the literature review a section on MEC theory. The section after that explains the methods of data collection and analysis used in this study. We then present the data analysis, before discussing the findings in a separate section. We conclude with a reflection on the implication and limitations of the study.

Literature Review

Whistleblowing and Previous Studies on Its Motives

The studies related to whistleblowing motivation can be divided into two broad groups in terms of approach. The overwhelming majority of the studies have focused on identifying the individual factors that facilitate whistleblowing, which include personal, situational, organizational, and contextual factors, as well as wrongdoing characteristics (e.g., Barnett 1992; Mesmer-Magnus and Viswesvaran 2005; Vadera et al. 2009; Sims and Keenan 1998; Waytz et al. 2013). Miceli et al. (1991) observed that some factors, such as the form and seriousness of the wrongdoing, the harm caused by the wrongdoing, morality, and the belief that the public is harmed by the wrongdoing, affect the decision to report the wrongdoing. Waytz et al. (2013) analyzed how fairness and loyalty increase or reduce willingness to report another person's unethical behavior to a third party. Based on a meta-analysis of 21 independent studies, Mesmer-Magnus and Viswesvaran (2005) examined the effects of the 193 correlates reported in the studies on whistleblowing intentions and actions in terms of their magnitude (how strongly related they were) and direction (positive or negative). They reported that personal and contextual factors and wrongdoing characteristics had closer relationships with the intent to

blow the whistle than with actually blowing the whistle. This approach mostly focused on the impact of individual factors on the decision to report wrongdoing in "a single decision-point" or "the last step in the decision [process]" of whistleblowing (Blenkinsopp and Edwards 2008, pp. 185–186; Jones et al. 2014, p. 648).

Another group of whistleblowing studies investigated cognitive factors that are involved in the decision to blow the whistle using a model or theory (e.g., Dozier and Miceli 1985; Ellis and Arieli 1999; Gundlach et al. 2003; Park and Blenkinsopp 2009). Dozier and Miceli (1985, pp. 831–834) explained predictors of whistleblowing using a pro-social decision model that views whistleblowing as a result of a series of multiple decisions. Gundlach et al. (2003) proposed the social information processing model to show how whistleblowing decisions are motivated. This model consists of various factors predictive of whistleblowing, including employees' attributional process, perceptions of causes, consequences and judgments of responsibility for wrongdoing, and emotional reactions to perceived wrongdoing. Ellis and Arieli (1999) analyzed officers' intentions to report illegal or irregular activities in the Israeli Defense Forces using the reasoned action model (Ajzen and Fishbein 1980). According to their study, the model's two predictors (attitude toward reporting and subjective norm) had a significant effect on intention, although the effect of the subjective norm was much greater than that of the attitude. Park and Blenkinsopp (2009) tested the predictive validity of Ajzen's (1991) theory of planned behavior for whistleblowing intentions by investigating the extent to which three determinants (attitude, subjective norm, and perceived behavioral control) affected the reporting of wrongdoing. Based on the results, they reported that all three were significant in predicting intention for internal whistleblowing, but only subjective norm for that of external whistleblowing, showing that the theory has a high potential for explaining whistleblowing intentions, but that the effects differed depending on the type of whistleblowing.

Despite all of these efforts, little progress has been made to understand the drivers behind the decision to blow the whistle (Yeoh 2014, p. 463). Knowledge about what kind of considerations whistleblowers actually make when going external is important when designing whistleblower programs. For such programs to be successful, they must be 'marketed' well, i.e., appeal to whistleblowers. Internal whistleblowing programs need to ensure that the internal process does not compel whistleblowers to make an external disclosure; whistleblowing programs of regulators or journalists need to deliver on what motivates external whistleblowing. Whistleblowing is the result of an employee's decision, which is directed toward achieving a specific goal. In MEC theory, the decision to blow the whistle is explained by a cognitive structure comprising three types of

motivators—attributes, consequences, and values—which are hierarchically interlinked. Attributes can be defined as the distinct aspects or characteristics of external whistleblowing, by which an employee thinks to bring about desired consequences and achieve the ultimate value of whistleblowing. Consequences are the positive outcomes the whistleblower expects from the external whistleblowing. Values are an individual's principles as an internal reference for what is important. A laddering technique is useful to uncover the hierarchical linkages among attributes, consequences, and values. Initially used in a context of marketing products to consumers (Gutman 1982, 1997), the technique has often been adopted to find “the deep drivers of [...] decision-making” (Phillips and Reynolds 2009, p. 83; Reynolds and Gutman 1988). The application of MEC theory and the laddering technique help to develop an integrated understanding of how one comes to opt for external whistleblowing, beyond analyzing the impact of individual factors on the decision to blow the whistle.

Means-End Chain Theory and Laddering

Means-end chain theory is a conceptual framework based on the belief that consumers purchase a product or service not for its own sake, but for the benefits provided (Gutman 1982, 1997). This theory posits that consumer decision to purchase a product or service is a choice between means to attain a particular goal through consumption of the product or service. All human behaviors are directed by a connection among attributes, consequences, and values, called a means-end chain, in which each of them is interconnected and corresponds with a hierarchical goal sequence (Gutman 1982, 1997; Reynolds and Gutman 1988): attributes as the features or aspects of a product or service, consequences as any expected results from consuming it, and values as desired end states. These three types of elements of a given product or service are classified into two sub-categories: concrete (tangible) and abstract (intangible) attributes; functional and psychological consequences; and terminal (ideal or long-term) and instrumental (serving as a means of achieving terminal goals) values (Gutman 1982, 1997; Reynolds and Gutman 1988). Attributes are the lowest layer in the means-end chain, and they bring consequences that are linked to values, the highest level (Gutman 1982, 1997). Consumers' decisions to purchase a product or service are ultimately guided by their values as preferred end states (Pieters et al. 1995). MEC theory considers attributes, consequences, and values to be “the primary motivating and directing factor(s)” for customers to make a decision (Gutman 1997, p. 547). A person might hold a value she/he wants to act on but will be able to decide on an action only if they also believe that value is linked with attributes and desirable consequences of a particular action. The theory has been employed as an

important perspective for motivation studies in marketing and organizational management, among others (Kaciak and Cullen 2006; Rugg et al. 2002; Wagner 2007). While means-end chain (MEC) theory was originally developed to explain consumers' behavior when choosing products or services that are available in the marketplace, numerous studies have shown that the theory can be suitable for a wide range of applications, including people's choices of “ideas, goals, or perceptions” as well as behaviors in various fields (Bagozzi and Dabholkar 2000, p. 535). For example, Bagozzi and Dabholkar (2000) applied the theory to explain the public's perceptions of President Clinton, and Bagozzi et al. (2003) used it to understand the motivations of volunteering to join the Italian army. Gengler et al. (1999) carried out a means-end analysis to explore the complexity of the motives behind why mothers choose to breastfeed. Using a means-end chain approach, Pieters et al. (1995) explored the hierarchical structure of reasons for pursuing a course of action to participation in weight-loss programs while incorporating the concrete level of specific action plans and the more abstract level of values and motives. In that vein, we argue that the MEC laddering technique can be applicable to behaviors like whistleblowing.

The laddering technique is an in-depth interview method that has been extensively adopted to elicit sets of A→C→V linkages in MEC theory. In the laddering interview, researchers ask a series of probing questions about the reason for respondents' choice of action: why a particular attribute, consequence, or value is preferred to any other on the same level, and why it is so important to them. These ‘why’ questions are repeated to gain insight into the higher level in respondents' underlying motivations for their choices (Reynolds and Gutman 1988; Veludo-de-Oliveira et al. 2006). Two different methods of generating A-C-V ladders have been commonly used in MEC studies (Kaciak et al. 2010; Phillips and Reynolds 2009): soft and hard. Soft laddering involves a qualitative in-depth interview, allowing respondents a more detailed response, while hard laddering is a quantitative interviewer-administered survey method in which laddering data are collected by a fixed set of closed questions. Soft laddering is effective for obtaining rich and personally meaningful information that is more appropriate to discover respondents' ladders (Kaciak et al. 2010). However, its application is “extremely time-consuming,” resulting in high costs and complexity (Botschen et al. 1999; Russell et al. 2004, p. 279; Reynolds and Gutman 1988; Vallette-Florence and Rapacchi 1991). On the other hand, hard laddering is easier and less costly to administer because it uses a structured interview (Veludo-de-Oliveira et al. 2006). Researchers (Botschen et al. 1999, pp. 54–55; Grunert and Grunert 1995) have maintained that hard laddering gives similar results to soft laddering in terms of validity and reliability by keeping the interviewer from being biased

toward the answers. For these reasons, some MEC studies (Botschen and Thelen 1998; Walker and Olson 1991) have employed hard laddering.

Methods

Subjects and Data Collection

Data for analysis were collected from Korean external whistleblowers who gained much attention from the news media. Both soft laddering and hard laddering interviews were used. The laddering interviews were conducted as part of the research project of the Horuragi Foundation (2013), a civic group committed to protecting whistleblowers. Data were collected from May to August 2013. As the first step to build ladders, we conducted in-depth interviews, based on the method used by Valette-Florence and Rapacchi (1991) and Reynolds and Gutman's (1988) guidelines. Three trained interviewers (including one of the authors) with knowledge about the laddering technique firstly interviewed 13 external whistleblowers in a relaxed atmosphere for approximately 1 h each. These interviews included asking them about what was on their minds at the time of blowing the whistle and inducing the respondents to progress from a lower level to a higher level in a ladder of abstraction until they could form a ladder of A-C-V. In the interviews, we asked a series of probing questions to elicit the ladders of attributes, consequences, and values of external whistleblowing. The attributes of whistleblowing were uncovered by questions: "What was the reason why you chose to let people know about the wrongdoing you observed in the workplace?"; "What attribute (specific aspects or features) of external whistleblowing did you think the most important when blowing the whistle?"; "What other features of the whistleblowing did you consider?"; "Why was that attribute more important to you than others?". Once the attributes were identified, the consequences as the second-level of means-end chains were asked: "Why was the attribute you just selected so important to you?"; "What other consequences did you expect from blowing the whistle?". As for values, we asked: "What was the ultimate goal of your whistleblowing?"; "Why did you think the goal you just selected was the most important to you at that time?". At each level of the means-end chain, we repeated a question to determine whether the respondents had any other response and to clarify what they meant by their response. During the laddering interviews, all responses were recorded. We conducted content analysis to extract the descriptors from the results of the interviews that met the means-end chains of MEC theory. Transcripts of the interview results were created to ladder the content analysis. Three researchers

(a professor of whistleblowing, a former whistleblower, and a PhD student with a master's degree in MEC theory and laddering technique) independently classified all soft laddering interview data (consisting of words, phrases, or sentences) into A-C-V levels and then further broke down the responses into categories for each of the three levels of MEC theory, which were broad enough in meaning to retain the quality of the information. The three separately repeated this process for each of the 13 external whistleblowers. The results were recorded on a spreadsheet. They then jointly examined all the categories to (1) merge categories by determining whether they were fit for laddering analysis regarding the origins of and differences in the exact meanings between the categories, and (2) reduce the number of categories based on the frequency of or emphasis on expressions of the words, phrases, or sentences used in the responses. They continued to collapse the A-C-V categories (obtained from soft laddering interviews) into fewer categories without losing any significant information through a subsequent examination. The reviews were stopped when the researchers believed that 5–10 had been reached, which was broad enough to capture the key concepts of A-C-V. In the final stage, the three agreed on approximately 85% of the categories and the assignments of the elements. They resolved the remaining inconsistencies through ongoing discussion of their personal differences while returning to the data and checking the meaning of elements (such as words, phrases, or sentences) of concern again until all A-C-V categories were coded. This procedure resulted in a hard laddering interview questionnaire that consisted of 24 questions: 5 for attributes, 10 for consequences, and 9 for values (see Table 1).

Table 1 shows all the attributes, consequences, and values of external whistleblowing that respondents considered both important and personally meaningful. A dictionary definition of an attribute is a characteristic, feature, property, or aspect of a person, behavior, or object, while a value is defined as a set of beliefs or ideas that guide people in their opinions or actions. For example, in this study, "duty" was identified as an attribute of whistleblowing because soft laddering interviews with external whistleblowers showed that blowing the whistle when wrongdoing is witnessed in the workplace was perceived as a behavior of civic duty. "Conscience" was selected as a terminal value or a sum of moral beliefs that whistleblowers think they can achieve by blowing the whistle because some whistleblowers answered that they blew the whistle to live a life of conscience, confirming this was the ultimate reason for their actions. Conscience can be construed as a kind of terminal moral value that needs to be maintained under any circumstances; it is a set of ideas that helps people distinguish between what is morally right or wrong. More broadly, it represents a standard of conformity for human behavior and an intrinsic but shared value of

Table 1 Summary of content codes

Attributes	Consequences	Values
Concrete attributes	Functional consequences	Instrumental values
(a1) Public disclosure	(c1) Proving that those who gave me a hard time were wrong	(v1) Challenges against abuses of power and money
(a2) The warning (of the seriousness of wrongdoing)	(c2) Making those who cheated confess their offenses	(v2) Right to know
(a3) The appeal for investigation	(c3) Letting people know the facts	(v3) Fairness (procedural and substantive)
(a4) Power to change	(c4) Correcting a wrong	(v4) Loyalty (to the organization)
Abstract attributes	(c5) Helping those who did wrong be punished	Terminal values
(a5) Duty (as a member of society)	(c6) Informing people of the unjust situation I was in	(v5) Truth
	(c7) Saying what I wanted to say to prove what's wrong	(v6) Public interest (public health and safety, environment, competition, and consumers' interest)
	(c8) Reducing the time needed to correct the problem	(v7) Social justice (equal rights and opportunities)
	Psychological consequences	(v8) Conscience
	(c9) Regaining my honor	(v9) Human rights
	(c10) The last hope	

human beings that is closely linked to social norms, which reminds people of moral standards and encourages acting within them to avoid regret.

Based on these results of the soft laddering analysis, we developed a questionnaire for hard laddering (structured interviews that use a series of close-ended questions). As for the minimum sample size for a laddering study, Reynolds et al. (2001, p. 96) suggested that laddering studies should include at least 20 respondents to conduct a conclusive analysis of the data. Coolen and Hoekstra (2001, p. 301) stated that, in most studies in which MEC theory is applied, the number of respondents for a laddering interview has been "at most 50 to 60" to identify the important relations among attributes, consequences, and values. For this study, we invited 66 external whistleblowers (including 13 external whistleblowers who participated in the soft laddering interviews) to participate in the hard laddering interview. Most were identified through searching newspaper articles on the Internet, although some were introduced by members of whistleblowers' social networks and civic groups that are committed to whistleblower protection. These people had blown the whistle on wrongdoings, such as contaminated blood transfusions, construction corruption, false claims of traveling expenses, sexual violence against mentally retarded students, and the illegal surveillance of civilians by the prime minister's office.

Using an abbreviated hard laddering questionnaire (see Kaciak and Cullen 2006; Kaciak et al. 2010), we asked each of the participants to select one attribute of the whistleblowing, three consequences, and one value from the list of A, C, and V that was obtained from the soft laddering interviews. The literature shows considerable variety in the format of hard laddering. Walker and Olson (1991), who developed a

paper-and-pencil version of the laddering interview, allowed respondents to identify up to four attributes and three reasons for each attribute. Considering that only a small portion of knowledge influences people's cognition and behavior at any given time, limiting the choices of respondents should not be of special concern. Out of many other possible formats, the primary reasons we asked respondents to select one attribute, three consequences, and one value from the list were as follows: (a) There is evidence showing that the quality of ladders is most likely to be confirmed when the respondent is asked to provide the most important attribute of a product or act, indicate up to three of the more important consequences of this attribute, and finally choose what is the ultimate value to him/her (Kaciak et al. 2010; Kaciak and Cullen 2009); (b) during the soft laddering probes, we found that most respondents provided, on average, a series of three to four claims (consequences) when explaining one specific aspect of whistleblowing (attribute). We also realized that an attribute ultimately links to a small set of values through the consequences of whistleblowing.

Out of the invited 66 external whistleblowers, 42 agreed to take part in the hard laddering structured interviews. A compensation check of 50,000 Won (approximately USD 46) was offered for taking part in the interviews. A total of 37 external whistleblowers completed the laddering survey, as five refused to answer during the interviews because they felt reluctant to let a private matter be recorded.

Data Analysis

Demographic Characteristics of the Sample

Table 2 provides a short overview of the demographic characteristics of the sample of external whistleblowers who

Table 2 Demographic characteristics of the sample (*N*=37)

Variable	<i>N</i> (%)
Gender	
Male	34 (91.9)
Female	3 (8.1)
Age	
Less than 30	1 (2.7)
30–39	2 (5.4)
40–49	12 (32.4)
50–59	19 (51.4)
60 or over	3 (8.1)
Education	
High school graduate or lower	6 (16.2)
University (including junior college)	19 (51.4)
Graduate school	12 (32.4)
Jobs respondents currently had	
Government agency	6 (16.2)
Public enterprise	2 (5.4)
School	3 (8.1)
Self-employed	11 (29.7)
Unemployed	15 (40.6)
Years since respondents blew the whistle	
Less than 1	2 (5.4)
1–3	8 (21.6)
4–6	10 (27.0)
7–9	5 (13.5)
10 or over	12 (32.4)

participated in the study.

The respondents included 34 males and 3 females. Most of them were over forty and self- or unemployed at the time of data collection. Among the respondents, 83.8% had a bachelor’s degree or higher.

Frequency of Attributes, Consequences, and Values

As a first step toward finding the matrix of relationships between the elements for means-end chains, frequency analysis of the elements was carried out. Table 3 presents the frequency of the attributes, consequences including overlapping responses, and values.

Respondents reported “a4. Power to change” (37.8%) to be the most important attribute of whistleblowing, followed by “a2. The warning of seriousness” (21.6%), while “a3. The appeal for investigation” (5.4%) was the least important. On the level of consequences, the functional consequence “c4. Correcting a wrong” (27.6%) was considered the most desired by the respondents. The consequence “c2. Making those who cheated confess to their offenses” (23.8%) was identified as the second most desired, while “c6. Informing people of the unjust situation I was in” (1.9%) was the least desired of this level. With respect to values, the terminal value “v5. Truth” was the top priority (35.1%) stated by the respondents. “v1. Challenges against abuses of power and money” and “v6. Public interest” followed v5, both making up 13.5% of the total responses. The instrumental value “v2. Right to know” and the terminal value “v7. Social justice” were chosen least frequently.

The Implication Matrix

The implication matrix as a next procedure of the laddering analysis was computed to produce a hierarchical value map and identify dominant means-end chains using the

Table 3 Frequency of attributes, consequences, and values

Attributes			Consequences								Values			
Code	<i>N</i>	%	Code	First		Second		Third		Total		Code	<i>N</i>	%
				<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%			
a1	7	18.9	c1	2	5.4	0	0	1	2.7	3	2.9	v1	5	13.5
a2	8	21.6	c2	9	24.3	11	29.7	5	13.5	25	23.8	v2	1	2.7
a3	2	5.4	c3	1	2.7	1	2.7	3	8.1	5	4.8	v3	2	5.4
a4	14	37.8	c4	15	40.6	10	27	4	10.8	29	27.6	v4	3	8.1
a5	6	16.3	c5	1	2.7	1	2.7	4	10.8	6	5.7	v5	13	35.1
			c6	1	2.7	1	2.7	0	0	2	1.9	v6	5	13.5
			c7	0	0	1	2.7	2	5.4	3	2.9	v7	1	2.7
			c8	3	8.1	4	10.8	4	10.8	11	10.5	v8	4	10.9
			c9	2	5.4	3	8.1	0	0	5	4.7	v9	3	8.1
			c10	3	8.1	3	8.1	10	27	16	15.2			

LadderUX program. The matrix represents the number of times each element connects to another on a ladder. Table 4 presents an implication matrix that shows frequencies and direct and indirect relations among the attributes, consequences, and values. The matrix presents how many times each element is linked to others in two types of relations: direct and indirect. A direct relation indicates an unmediated relation between adjacent elements, whereas an indirect relation indicates a linkage between two elements when other elements interpose between them (Veludo-de-Oliveira et al. 2006). For example, a linkage like A-C-V includes two direct relations (A-C and C-V) and one indirect relation (A-V). The relations are presented in fractional form in the implication matrix, with a direct relation to the left and an indirect relation to the right. In the first row of Table 4, the cell made by the combination of a1 and c2 is 6/0, which indicates that six respondents linked a1 directly to c2, and no respondent linked these elements indirectly. By contrast, the cell made by the combination of a1 and v5 is 0/12, which shows that 12 respondents indirectly linked a1 to v5 through other elements.

As for the direct relation between attributes and consequences, the relation between “a4. Power to change” and “c4. Correcting a wrong” was the strongest ($n=10$), followed by that ($n=9$) of a4 and “c2. Making those who cheated confess to their offenses.” In terms of the direct relation between consequences and values, that of c2 and “v5. Truth” was the strongest ($n=11$), followed by that ($n=7$) of c4 and v5. The indirect relation between attributes and values showed that the relation of a4-v5 was the strongest ($n=17$), followed by that ($n=12$) of “a1. Public disclosure” and v5.

Hierarchical Value Map (HVM)

A hierarchical value map (HVM) was constructed based on the results of the implication matrix. One way of producing the HVM is to include all associations between elements identified in the implication matrix. However, the most commonly used approach is to include only “significant relations” above cut-off scores (Veludo-de-Oliveira et al. 2006, p. 635). In other words, each relation between two elements was compared to cut-off scores and included only when the relation was either greater than or at least equal to the relevant cut-off score. Otherwise, the relation was not included. In this way, we reduced the complexity of the results but increased the clarity of the HVM. The “cut-off level” is defined as “the minimum number of times two elements must be mentioned in the hierarchical value maps” (Skytte and Bove 2004, p. 332). Reynolds and Gutman (1988) suggested that researchers first try multiple cut-off levels to find the best informative solution. Pieters et al. (1995, p. 239) stated that a cut-off level is appropriate when 60–70% of all relations are represented in the maps. Using these criteria, this study selected a cut-off value of 2, accounting for 64.08% (see Table 5).

Although cut-off level 3 had the highest concentration index (the percentage of all links to cells), this level had the greatest possibility that the significant relations below the cut-off level would be ignored. Considering previous studies (Reynold and Gutman 1988; Pieters et al. 1995), we chose cut-off level 2, which had ladders that accounted for the largest percentage of the total number of connections. At this level, the HVM showed 64.08% of activated cells

Table 4 Direct and indirect implication matrix

	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	v1	v2	v3	v4	v5	v6	v7	v8	v9
a1		6/0	1/0	5/0				3/0	2/0	3/0	0/3				0/12	0/3		0/2	
a2	1/0	7/0	1/0	8/0	1/0		1/0	3/0		2/0	0/3		0/3			0/6	0/3	0/3	0/6
a3		1/0		2/0						1/0					0/3	0/1			
a4		9/0	1/0	10/0	5/0	1/0	1/0	5/0	1/0	6/0	0/6	0/3	0/1	0/6	0/17			0/3	0/3
a5	2/0	2/0	2/0	4/0		1/0	1/0		2/0	4/0	0/3			0/3	0/6	0/3		0/3	
c1															1/0	1/0			1/0
c2											4/0		1/0	1/0	11/0	3/0	1/0	2/0	2/0
c3													1/0	1/0	2/0			1/0	
c4											5/0		2/0	3/0	7/0	5/0	1/0	3/0	3/0
c5											1/0	1/0			3/0				1/0
c6												1/0			1/0				
c7															2/0		1/0		
c8														2/0	4/0	3/0		1/0	1/0
c9															4/0			1/0	
c10											5/0	1/0		2/0	3/0	1/0		3/0	1/0

The number of relations is presented through numbers in fractional form, where the direct relations appear to the left of a forward slash (/) and the indirect relations to the right

Table 5 Cut-off level analysis

Cut-off Level	Activated cells (%)	Activated links (%)	Concentration index
1	103 (100)	315 (100)	0.67
2	66 (64.08)	278 (88.25)	0.87
3	51 (49.51)	248 (78.73)	0.94

Total cells=103, total links=315 (direct links=210; indirect links=105), total ladders=105

among the total, indicating that the map would represent almost two-thirds of all activated connections. Based on the data aggregated in the implication matrix, the hierarchical value map was drawn using the LadderUX program, which interconnects all significant chains above the cut-off level. Figure 1 shows the means-end chains that respondents used to make the decision to blow the whistle.

On the map, the sets the respondents' motivators are displayed based on the total number of relations. The chains with a greater number of relations refer to respondents' perceptual orientations as more important than those with a lower number of relations. The hierarchical associations among attributes, consequences, and values represent respondents' motivational structures of external disclosures, showing which attributes were chosen to gain particular consequences and which lead to the values as

desired end states. Results showed the four main means-end chains: (1) "a4. Power to change"—"c4. Correcting a wrong"—"v5. Truth"; (2) "a4. Power to change"—"c2. Making those who cheated confess to their offenses"—"v5. Truth"; (3) "a2. The warning"—"c4. Correcting a wrong"—"v5. Truth"; and (4) "a2. The warning"—"c2. Making those who cheated confess to their offenses"—"v5. Truth." Although the motivation chains might seem to be varied and widely dispersed, the dominant chains started from two concrete attributes (a4, a2), which were linked with two functional consequences (c4, c2), resulting in one terminal value (v5). On the consequence level, respondents perceived two functional consequences "c4. Correcting a wrong" and "c2. Making those who cheated confess to their offenses" as much more important than other consequences, putting them in the center of respondents' hierarchical cognitive structures of whistleblowing. This result shows that the two consequences take a key motivating role in the decision to blow the whistle through connecting attributes and values. The strong motivation chains converged on "Truth" as a value, showing that the external exposures of wrongdoing are mostly triggered to attain "the truth." These results suggest that external whistleblowing is mostly motivated by the linkages among two concrete attributes (a4, a2), two functional consequences (c4, c2), and one terminal value (v5).

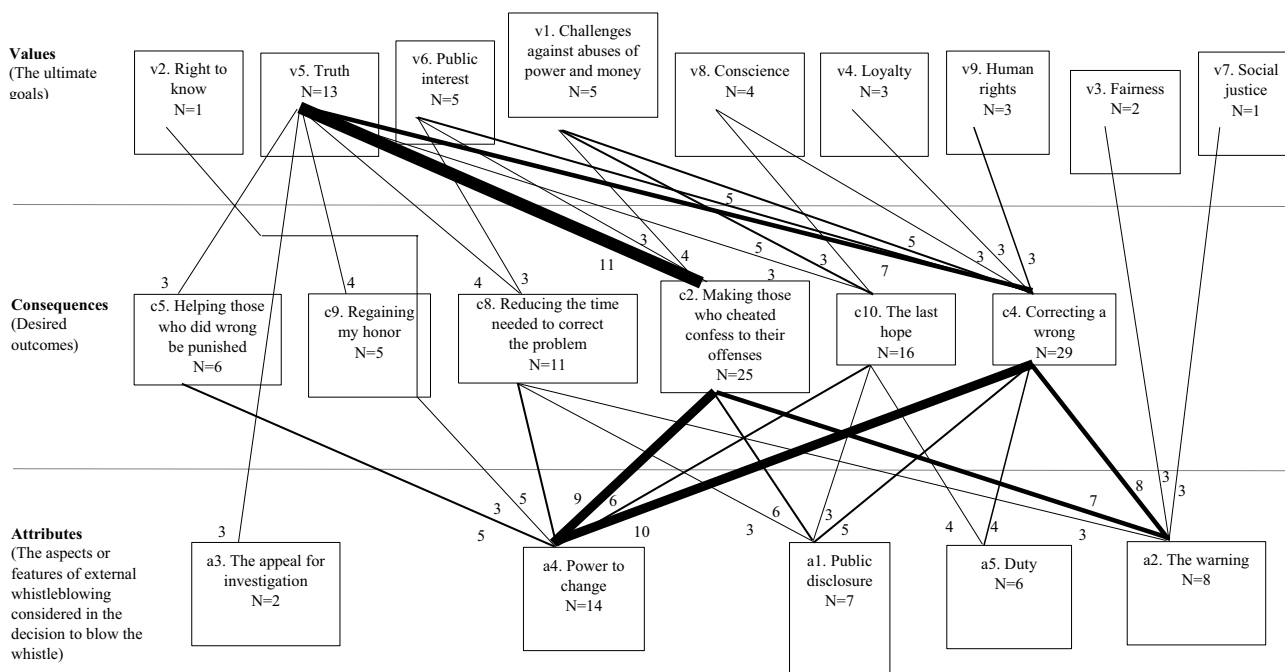


Fig. 1 Hierarchical value map. Note: (1) Cut-Off =2. (2) HVM was redrawn based on the results of a laddering analysis using the LadderUX program. (3) The numbers in the boxes represent the frequency of responses, with the numbers outside of the box referring to

the total number of relations. (4) The thickness of the line represents the total number of relations: 1/4 pt for a number less than 5, 1 pt for 5 and 6, 2/4 pt for 7 and 8, 4/2 pt for 9 and 10, and 6 pt for 11 and 12

Findings and Discussion

The results of the laddering analysis provide empirical evidence about how motivation of external whistleblowing is structured as chains of attributes, consequences, and values. The important attributes of external whistleblowing that respondents articulated were power to change, warning of the seriousness of wrongdoing, appealing for an investigation, public disclosure, and duty as a member of society. The desired consequences of external whistleblowing that respondents found important were correcting a wrongdoing, making those who violated laws admit their offense, helping those who did wrong to be punished, regaining honor, reducing the time needed to correct the wrongdoing, and the last hope to solve the problem. The values articulated by respondents to be the ultimate goals of external whistleblowing were truth, public interest (public health and safety, environment, competition, right to know, and consumer interest), challenging abuse of power and money, conscience, loyalty (to the organization), human rights, fairness (procedural and substantive), and social justice (equal rights and opportunities).

The dominant means-end chain of external whistleblowers was found to include the linked sets of two concrete attributes (power to change, and warning of serious wrongdoing), two functional consequences (correcting a wrongdoing, and making those who violated laws to admit their offense), and one terminal value (truth). This suggests that the decision to blow the whistle externally is largely driven by these cognitive elements: each of the two attributes were linked to both consequences, and truth as a preferred end state of external whistleblowing was put at the top of the chains. In order to understand these findings, it is important to note that external whistleblowing is most often preceded by internal whistleblowing (Rothschild and Miethe 1999; Vandekerckhove and Phillips 2017). Hence, whistleblowing is to be regarded as a protracted process rather than a one-off decision. Most whistleblowers initially raise concerns within their organization about violations that threaten the public interest, ‘as they do not want to harm their employers’ (Yeoh 2014, p. 464). Further, Park et al. (2008) found that across cultures people prefer internal over external whistleblowing.

However, after their reporting has been ignored for unjust reasons or they find themselves ostracized within the organization, whistleblowers might continue and disclose information about wrongdoing in the workplace to external parties. Our research presented in this article concerns the motivation of external whistleblowing; given the extant research it is safe to assume that our respondents’ motivations were shaped by either their personal experience of an internal unsuccessful attempt to raise a concern

and stop wrongdoing or by the experience of seeing other unsuccessful internal whistleblowers in their workplace. In this sense, our findings for external whistleblowing do not necessarily suggest what the motivating attributes, consequences, and values are of internal whistleblowing. Weiskopf and Tobias-Miersch (2016), in their analysis of a whistleblowing case, showed how the whistleblower’s reasoning about what he was doing changed throughout the process, from an initial belief that internal whistleblowing would bring change in the public interest by stopping the wrongdoing to a further attempt to bring about change by ‘speaking truth’—Weiskopf and Tobias-Miersch (2016) use the concept of *parrhesia*. Our research provides a broader empirical base for characterizing the reasoning of whistleblowers who made external disclosures. More precisely, the external whistleblowing option—rather than the internal option—entails the attributes ‘power to change’ or ‘warn the public’ with the intended consequences ‘correct the wrongdoing’ or expose the ‘bad guys.’ But the value underpinning the attributes and consequences is ‘truth,’ possibly because truth was precisely what was withheld in earlier unsuccessful internal reporting. Rothschild and Miethe (1999) and Weiskopf and Tobias-Miersch (2016) document how unsuccessful internal whistleblowing not only implies that the alleged wrongdoing continues but also that many un-truths are generated, both about the voiced whistleblowing concern (e.g., the un-truth that no professional norms were breached) as well as about the whistleblower (e.g., un-truths about performance, professionalism, and collegiality of the whistleblowing employee). Hence, extant scholarly knowledge about failures of internal whistleblowing helps to explain our findings about attributions, consequences, and values of external whistleblowing. In this sense, our research contributes to the literature by extending knowledge about external whistleblowing in line with extant knowledge about internal whistleblowing (Rothschild and Miethe 1999; Weiskopf and Tobias-Miersch 2016) and with extant quantitative research on whistleblowing as a protracted process (Vandekerckhove and Phillips 2017).

This interpretation of our findings allows us to draw some broad recommendations for whistleblowing policies and programs. Internal whistleblowing programs ought to pay attention to avoid or undo generating un-truths during the internal whistleblowing process, i.e., across the successive stages of raising, triage, investigating, possible corrective action, and communication with the whistleblower. Our research findings make it plausible that a failure to avoid or undo un-truths might lead people to proceed to external whistleblowing. On the other hand, external whistleblowing programs (i.e., those initiated by regulators or journalists) might have greater success if they are constituted and operate around the notion of ‘bringing truth to light.’

We wrote that our aim was to provide an integrated approach to the study of whistleblowing motivation by using MEC theory, given that the extant whistleblowing literature has at best looked at motivational factors in isolation. Our findings suggest MEC theory can do this, and thus connects what until now seemed disconnected streams of literature. At the attribution level, ‘power to change’ resonates with Near and Miceli’s (1985) notion of “to effect action” in their pro-social model of whistleblowing; the literature on factors that trigger whistleblowing intentions and behavior resonates with our attribution of ‘warning of the seriousness of wrongdoing.’ At the consequence level, MEC theory integrates the two dimensions of successful whistleblowing (e.g., Vandekerckhove et al. 2014), namely whistleblowing that is both effective and safe: ‘correcting a wrongdoing’ (cf. Near and Miceli 1995) and ‘making those who violated a law admit their offense’ (cf. Smith and Brown 2008; cf. newspaper coverage of whistleblowers who finally get vindicated through the courts, e.g., Wendy Addison after 11 years or more recently Luxleaks whistleblower Alain Deltour). At the end-state level in MEC theory, our finding that external whistleblowers are driven by one dominant value, namely truth, shows that previously mentioned literature at the attribution and consequence levels resonates with research using an identity/parrhesia lens (Kenny 2017; Weiskopf and Tobias-Miersch 2016). Thus, our paper provides ground for seeing these various findings not as either contradictory or different theories of the same thing, i.e., motivation. Rather, different theoretical literature studies have studied different aspects of motivation, i.e., attributes, consequences, or values. As such, MEC theory works well in offering a model that integrates research literature using various theoretical lenses on whistleblowers’ motivation.

In discussing moral motivation across ethical theories, de Colle and Werhane (2008) note that generally ethical theories are presented according to a means-end rationality. Thus, Aristotle prescribes acting according to virtue (means) because doing so will make you happy as well (end), Kant prescribes acting according to the categorical imperative (means) because by doing so you will act according to the moral law within yourself (end), and Mill prescribes acting according to the Greatest Happiness Principle (means) because this will bring happiness, also for you (end). In this reasoning, the ‘end’ is what motivates us to do the ‘means,’ and as such the ends rather than the means have moral value. Relying on Harsanyi’s distinction between goal-directed rationality and criterion-satisfying rationality, de Colle and Werhane (2008) argue that while the goal-directed rationality—choosing the best means available for achieving a given end—has become the dominant assumption of economic theory, but that “in everyday life we use another model of rational behavior” (p. 755), one which entails an intrinsic coherence between the end and the means. In this

account of rationality, the motivation to do something arises from becoming aware of that coherence. When using MEC theory to understand moral motivation, it might be useful to consider such a coherence-rationality. Thus, motivation for external whistleblowing arises from a cognitive coherence whistleblowers develop between means-and-end, or between attribute, consequence, and value of an action. It is in this sense that we can understand motivation of whistleblowers to be multi-layered or laddered. Our research suggests that within the cognitive means-end coherence that brings someone to do external whistleblowing, truth is the most important end-value. In this sense multiple laddered motivations may lead to external whistleblowing; however, any of those ladders is most likely to culminate in the value ‘truth.’

Hannah et al. (2011) distinguish between moral maturation and moral conation. Moral stage theories (e.g., Kohlberg) are theories of moral maturation, with each stage indicating increased complexity of moral sensitivity and moral judgement. Noting however that extant research demonstrates “relatively weak relationships between ethical judgments and ethical behaviors” (p. 674), Hannah et al. (2011) call for more attention and work on moral conation, i.e., the capacity to generate motivation to act. This capacity includes moral ownership, moral efficacy, and moral courage. In our research, we used MEC theory to research moral conation rather than moral judgment. Thus, MEC theory could help to further research on actual whistleblowing. More precisely, MEC theory and the laddering technique could be used in future research to study the motivational differences between non-whistleblowing and whistleblowing observers of wrongdoing, or between internal whistleblowers who go on/who do not go on to external whistleblowing.

Conclusions

Three questions were addressed in this study: what are the underlying attributes (A), consequences (C), and values (V) of external whistleblowers when they blow the whistle? What motivational chains of A, C, and V play a dominant role in the decision to blow the whistle? And how are the three types of cognitive elements interlinked in the whistleblowers’ means-end chains that connect their values to the decision to blow the whistle? Using soft and hard laddering techniques, results revealed that the motivation of external whistleblowers consisted of complex connections among attributes, consequences, and values. However, motivational chains that play a dominant role in the decision to blow the whistle externally included the following cognitive factors: two attributes (power to change and the warning of the seriousness of wrongdoing), two consequences (correcting a wrongdoing and making those who violated laws admit their offense), and one value (truth).

MEC theory integrates three types of cognitive aspects of motivation (attributes, consequences, values). Our findings suggest that the MEC theoretical model is able to integrate the extant research literature using various theoretical lenses on whistleblowers' motivation. Given that this extant literature is disperse and disconnected, MEC theory's integrative power is a contribution to the field.

However, we argued that although formulated as 'means-end-chain' it seems more appropriate to understand the links between the different cognitive aspects of moral motivation from the perspective of a coherence-rationality, rather than a goal-directed rationality.

Our study has several limitations. One limitation of this study is that the data are collected from Korean external whistleblowers, and as such their values might be influenced by their national culture. Hence, it is necessary to reproduce this study in a different cultural setting. A second limitation concerns the data collection tools. Both survey and in-depth interviews are vulnerable to self-report or interest biases. Nevertheless, this study offers some valuable information on the hierarchical linkages among the cognitive factors (attributes, consequences, and values) involved in the decision to reporting wrongdoing to third parties.

A third limitation concerns the laddering technique. Previous research (e.g., Gengler and Reynolds 1995; Lin 2002) reports some common problems with this method. Often respondents do not have "a ready answer" when asked questions about the A-C-V ladders, such as why a particular attribute or consequence was important to them or more important than others. Further, they do not fully articulate the meaningful differences or the associations between A-C-V because they have not previously thought of the reasons in terms of attributes, consequences, and personal values. Another problem in laddering interviews is that questions are too sensitive or too private. In this study, we did not experience these problems as seriously as reported in earlier studies. Most of our respondents were able to use relatively clear and compelling reasons. We believe that two measures were helpful in reducing the reported problems in this study: (a) Probing questions (for example, asking why an attribute (or consequence) was more important than others and "what does that really mean to you?") were repeated to force respondents to form an MEC in an A-C-V sequence; (b) three investigators (a professor of whistleblowing, a former whistleblower, and a PhD student with a master's degree in MEC theory and laddering technique) participated in classifying the content of the soft laddering interview data (consisting of either words, phrases, or sentences) for each of three levels of MEC theory (A-C-V) and resolving the remaining inconsistencies via ongoing discussion of their personal differences as well as returning to the data and checking the meaning of the elements of concern.

Finally, a fourth limitation of this study is that the accuracy of our findings might be affected by a recall bias. Almost 73% of our respondents had become an external whistleblower at least 4 years before participating in our research. This might explain why we had less problems than previously reported (cf. limitation four) during the interviews. Future research should aim to reduce the time between external whistleblowing and interview.

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Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interest.

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